



A Phoenix Mecano Company

ENCLOSURE TECHNOLOGY
INPUT UNITS
ELECTRONICS SERVICES



THE RED BOOK

EDITION 4.1



Welcome to **BOPLA City!**

You can rely on us: **BOPLA, your strong partner** for a successful future

BOPLA stands for 30,000 satisfied customers and more than 7,000,000 achieved applications in the enclosure technology, input unit and electronics services sectors. A high level of quality and customer-oriented service – these have been our trademark for over 40 years. Our qualified staff are always highly motivated to find the right product which ensures that your application is a great success! Our comprehensive range of products – the largest in the sector – comprises hand-held, desktop and console enclosures, wall-mounted enclosures and 19" applications. In addition, we offer the manufacture

of customer-specific enclosures and components made of plastic, aluminium and profile technology.

... All over the world ...

With over 25,000 articles for electronic components, we are one of the most important companies in the enclosure industries. For more than 40 years, our designers in Bünde, North Rhine-Westphalia, Germany, have been developing enclosures and input units. These are then manufactured in our production facilities in Kecskemet, Hungary, and





Sibiu, Romania. Our in-house centre in Bünde offers a wide range of services including electronic production, mechanical processing such as drilling and milling, and also complete assembly.

Our products protect high-quality assemblies against damage, and also ensure problem-free operation. Our customers include high-quality companies in the mechanical engineering and medical technology sectors, in addition to well-known consulting engineers and automobile manufacturers. Since 1977 BOPLA has been part of the internationally-operating Swiss company of Phoenix Mecano AG.

... Service management ...

Absolute customer satisfaction is our main priority, so high-performance products and individual and competent advice are top of the list. In addition, you benefit from our fast delivery times: thanks to our fully-automated high-bay warehouse in Bünde, we deliver in-stock products within 24 hours. If you want your enclosures to be processed, BOPLA will provide a catalogue of delivery times. As you will see, the fastest delivery times are a matter of course for us, even for complex services! Our highly-motivated team is ready at all times to deal with your questions and wishes. We look forward to talking to you.

... We invite you ...

Move into the world of BOPLA City, where you can rely on us, BOPLA! The red book is already giving you an impression of who we are: your strong partner for a successful future. The red book shows you the entire innovative BOPLA range, consisting of enclosure systems, input units and electronics services. Of course, you will also find additional information on our wide range of services on the following pages. If you have any questions or comments on our products and services, we look forward to meeting you at one of the many fairs at which we exhibit, including those close to you. You are also very welcome to visit us in our Bünde headquarters, where we will be happy to demonstrate our competence and skills. Finally, our website – www.bopla.de – will give you the most up-to-date information on our company and products, so it's always a good idea to look there.

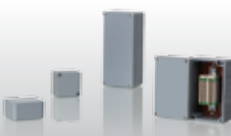
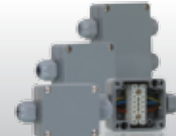
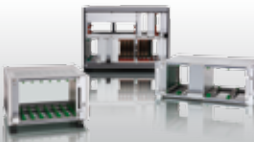
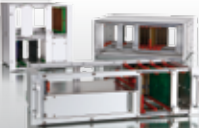
Contents

Introduction
Service
Input units
Electronics services

2 – 13
14 – 17
18 – 35
36 – 43

Compact PCI
Enclosure technology
Technical information
Sales organisation

44 – 47
48 – 509
510 – 527
528 – 533

	Alubos 96 – 113		Aluplan 70 – 79		Alurail 272 – 281
	Alustyle 80 – 95		Alu-Topline 212 – 215		Bocard 298 – 323
	BOPLA-Arteb 150 – 163		BOS 164 – 183		BOS-Ecoline 114 – 123
	BOS-Streamline 124 – 149		Boteogo 48 – 61		Circum 188 – 197
	CombiCard 5000-7000 256 – 271		CombiNorm-Classie 282 – 289		CombiNorm-Compact 290 – 297
	CombiCard 1000-3000 / CombiSet 500 232 – 255		Elegant 198 – 205		Elegant-Pult 222 – 225
	Element / Universal 206 – 211		Euromas II 346 – 357		Euromas-ABS / Polycarbonate 358 – 369
	Euromas-Aluminium / F05 enclosures 370 – 385		Euromas-Polyester 386 – 395		Euromas-Polymas 396 – 403
	Futura / Portas / Bopult 226 – 231		Internorm Stil / Interzoll Plus 420 – 433		Internorm 434 – 441
	Intertego 404 – 419		Interzoll Modul / Interzoll 442 – 483		RegloCard-Plus / Combifront / InterCard 324 – 337
	Tastomat 184 – 187		Ultramas 62 – 69		Ultrapult 216 – 221
	Uninorm 338 – 345		Universal-Docking-Station 484 – 487		Cable glands / General accessories 488 – 507

All enclosures at a glance!

	Hand-held enclosures	Desktop enclosures	Console enclosures	Wall-mounted enclosures	Display enclosures	DIN rail enclosures	Control panel mounting enclosures	Operating panel enclosures	Terminal enclosures	Switch cabinet enclosures	19" enclosures	Backplane enclosures	Metal enclosures	Plastic enclosures	Up to IP 40	IP 54 and higher
Alubos	●	●	●	●	●	●	●	●					●			●
Aluplan	●	●	●	●	●			●					●			●
Alurail				●		●							●		●	
Alustyle	●	●	●	●	●	●		●					●			●
Alu-Topline		●	●	●	●								●		●	●
Bocard		●	●	●	●	●	●	●	●					●	●	●
BOPLA-Arteb	●													●	●	●
Bopult	●	●	●											●	●	●
BOS	●													●	●	●
BOS-Ecoline	●	●	●	●	●	●		●					●		●	●
BOS-Streamline	●		●											●		●
Botego		●	●	●	●			●			●	●		●	●	
Circum	●	●			●		●							●	●	
CombiCard 1000-3000		●		●	●		●				●	●		●	●	●
CombiCard 5000-7000		●		●	●		●				●	●		●	●	●
Combifront				●	●		●	●						●		●
CombiNorm-Classic						●								●	●	
CombiNorm-Compact						●								●	●	
CombiSet				●		●	●				●			●	●	●
Elegant	●	●		●	●									●	●	
Elegant-Pult	●	●	●	●										●	●	
Element	●	●		●	●									●	●	
Euromas II	●	●		●	●			●	●					●		●
Euromas-ABS / Polycarbonate	●	●		●	●			●	●					●		●
Euromas-Aluminium		●		●					●				●			●
Euromas-Polyester		●		●					●					●		●
Euromas-Polymas		●		●					●					●		●
Futura / Portas	●	●	●		●			●						●	●	●
InterCard				●										●		●
Internorm		●		●						●	●			●	●	●
Internorm Stil		●									●	●	●	●	●	
Intertego										●	●	●	●	●	●	
Interzoll											●	●	●	●	●	
Interzoll Modul											●	●	●	●	●	
Interzoll Plus		●									●	●	●	●	●	
RegloCard-Plus				●	●			●	●					●	●	●
Tastomat	●							●						●		●
Ultramas		●		●	●			●			●			●	●	
Ultrapult		●	●	●	●									●	●	
Uninorm					●		●							●	●	●
Universal		●												●	●	



- Standard
- Depending on design
- Can be upgraded with accessories

Every care has been taken to ensure that the information contained in this catalogue is correct at the time of publication. However, in the event that any of the information is incorrect, the company is unable to accept any liability. This catalogue replaces all previous versions. Information in this catalogue is subject to technical alterations at any time. All dimensions stated in this catalogue are in millimetres (mm).

Fits easily in the hand!



1 BOS-Streamline
124 – 149

2 UDS
484 – 487

3 Tastomat
184 – 187

4 BOPLA-Arteb
150 – 163

5 BOS
164 – 183

Electronics, well-packed!



6 Elegant
198 – 205

7 Element / Universal
206 – 211

8 Botego
48 – 61

9 Circum
188 – 197

10 Ultramas
62 – 69

Easy to operate!



11 Alu-Topline
212 – 215

12 Futura / Portas / Bopult
226 – 231

13 Elegant-Pult
222 – 225

14 Ultrapult
216 – 221

Versatile and flexible!



15 Euromas-
Polymas
396 – 403

16 Euromas-
Aluminium
370 – 385

17 Euromas II
346 – 357

18 Euromas F05
enclosures
370 – 385

19 Euromas-ABS /
Polycarbonate
358 – 369

20 Euromas-
Polyester
386 – 395

Control systems, attractively packed!



1 CombiSet 500
232 – 255

2 Bocard
298 – 323

3 RegloCard-Plus / Combifront
InterCard / 324 – 337

4 CombiCard 5000-7000
256 – 271

5 CombiCard 1000-3000
232 – 255

Equipped for the DIN rail!



6 Alurail
272 – 281

7 Uninorm
338 – 345

8 CombiNorm-Compact
290 – 297

9 CombiNorm-Classic
282 – 289

Profiles with a system!



10 Alubos
96 – 113

11 Intertego
404 – 419

12 Aluplan
70 – 79

13 Alustyle
80 – 95

14 BOS-Ecoline
114 – 123

Input units just the way you want them!



Input units
20 – 39

19" technology custom-made.



1 Interzoll Plus
420 – 433

2 Intertego
404 – 420

3 Plug-in units
442 – 483

4 Internorm Stil / Interzoll Modul / Interzoll
420 – 433 442 – 483

5 Internorm
434 – 441

Individual and very special!



Special enclosures
14 – 15

Plastic enclosures: attractive and innovative!



Selection of plastic enclosures

Aluminium profile enclosures: impressive variability!



Selection of aluminium profile enclosures



Welcome to BOPLA City!

Our comprehensive offer for you: Available at any time!

www.bopla.de



The new red book:

On our complete red book catalogue we show you the complete range of BOPLA's products, consisting of enclosure systems, input units and electronics services. Of course, the red book also includes a demonstration of our services as well as all kinds of technical information. We have simplified the catalogue layout, so it is easier to understand our extensive range of products. The individual chapters always have the same design, so you can instantly see which product is the right one for you. For example, on the introductory product pages you will find all the important information on the enclosure groups, including details of materials and colours, protection class, etc.

On the following pages you will find all the products in the enclosure group, arranged according to sizes. The catalogue illustrations allow you to choose an enclosure for your planned application. After making your choice, you will find more information on our website. The accessories for individual product groups are always shown at the end of each chapter, so you can quickly see whether the components of the accessories are also suitable for the enclosure you have selected.

More service information on the internet (www.bopla.de):

As a company which operates on a worldwide basis, we consider it vital to have a successful mix of catalogue documentation and the internet. BOPLA's current catalogue is available in German, English, French and Russian; in addition, our www.bopla.de website offers the following languages: Spanish, Italian and Dutch. It is important for us to link both channels of communication by giving you internet tools to make your

daily work easier in ways which are not possible to do with printed materials.

We help you to choose your enclosure by providing you, on www.bopla.de, with CAD drawings in 2D, pdf and dxf formats for all the products in our extensive range. After you have registered – only necessary once – you can also open and store 3D data in the stp format. These data make your design work much easier, because when you have the exact dimensions of all drawings, you can check directly whether your electronic components will fit in the enclosure you have chosen. In addition, there are 3D tools on our home page which bring our enclosures to life on your computer!

As well as the comprehensive representation of drawings, our www.bopla.de website offers you another important advantage – it is always up-to-date. In the course of time, a printed catalogue reaches its limits, because we are constantly adding to our range of products. However, our website always keeps you informed about the BOPLA team's new developments. One more reason to visit our website on a regular basis is that it brings you the latest news from BOPLA, for example the dates of trade fairs, photos of events, the latest certifications, etc. We are especially proud of our wide-ranging applications database, where you will find many examples of our customers' enclosure applications. We would be very happy to include your product in this database.



Would you prefer to have our catalogue in digital form? That's not a problem. Everything in the catalogue can also be downloaded as a pdf document.

We look forward to your feedback if there is anything we could improve, or if you have any questions or comments about us or our products. Our sales and marketing team is always ready to listen.

We are here for you:

Telephone: +49 (0) 5223 / 969-0

Internet: www.bopla.de

Mail: info@bopla.de

We look forward to hearing from you!



Special enclosures: we implement all your ideas and wishes – promptly and at low cost.

Special enclosures from BOPLA – from the original idea to series manufacture, we are your competent partner!

Have you found one of our standard enclosures to be exactly what you need, or do you need an individual enclosure for your own CI design or to integrate functions? Let us use our many years of experience to manufacture your individual enclosures. There is a wide range of possibilities, from plastic to metal to special profile enclosures. We have already implemented a large number of special solutions, so you can rely on our specialist knowledge from many successful projects in many different sectors – together with you, we create products and components which satisfy the most sophisticated standards in respect of quality and safety!



Development and construction:

Early integration of our specialists in your ideas and developments is important for fast success. Working closely with you, we define the exact requirements for your enclosure, based on the ultimate application. These include enclosure shape, place of use, the material, any special equipment, requirements such as the degree of IP protection, and EMC and chemical resistance. Clarification of an estimate of the costs and the opportunities for implementation will take place at a later date in connection with the specification document.

Prototyping:

On the basis of 3D data on the later enclosure, and which you provide or our in-house design department prepares, it is already possible to draw initial conclusions about the subsequent design of the enclosure. Depending on the material selected for the enclosure, during the following process initial samples or prototypes are manufactured which make it possible to examine and check the first results. Assembly and function tests can now take place with electronic and other components; all the departments which are involved with the manufacture and marketing of the product – for example product management and production – can add their own ideas to the first prototypes in order to achieve the best possible product. This system avoids the need for later expensive and time-consuming alterations to the enclosure.

TIP

The main advantages of a plastic special enclosure:

- High-standard design requirements
- Low weight
- Low parts costs
- In parts, resistant to aggressive environmental influences (rain, salt water)

These are the main advantages of metal special enclosures:

- Small quantities at lower cost than plastic enclosures
- Good opportunities for EMC shielding and for conducting connections
- Ideal for use in difficult environmental conditions (high level of chemical and temperature resistance)
- Low-cost alterations to the enclosure design are always possible
- High level of rigidity
- High impact strength

These are the main advantages of profile special enclosures:

- Length variability (easy to create a family of enclosures)
- Ideal for use in difficult environmental conditions (high level of chemical and temperature resistance)
- Good opportunities for EMC shielding
- High level of heat dissipation
- Low tool costs
- High impact strength
- High-quality design
- High level of rigidity

Series manufacture:

After the customer has released the prototypes or initial samples, manufacture of the customer-specific special enclosure takes place in BOPLA's own production facilities. This is where safe, secure processes, high-quality machines and qualified personnel guarantee the manufacture of first-class special enclosures and components using plastic, metal or aluminium profile technology.

We can carry out any additional processing, printing, engraving, lacquering and EMC shielding processes which the customer requires. BOPLA can also take on additional services such as wiring, the electrical testing of components and/or the manufacturing of customer-specific input units for the product.

Here are the advantages of BOPLA service at a glance:

- Support as early as the initial phase of product development
- Pre-calculations
- Design of the mechanical components
- Prototype manufacture
- Tool construction
- Manufacture of the initial samples
- Manufacture of enclosures and components using plastic, metal and aluminium profile technology
- Mechanical processing, printing, lacquering, EMC shielding, pre-assembly
- Assembly of electronic components
- Wiring and electrical tests
- Development and manufacture of customer-specific input units, from the membrane keypad to the integration of a touch screen
- Ingress protection test, climate test
- Selection of suitable packaging, preparation of an optimal logistics concept



A comprehensive range of services provides everything you need.

The combination of skilled work, maximum precision and the efficient use of our capacities is what ensures excellent quality, punctually and every time. With its modern machines, BOPLA takes care of the individual and precise manufacture of your product.

From CNC milling machines to customer-specific equipment and various silk screen and pad printing machines, we have plenty of these made by well-known manufacturers. This is why we can guarantee you highly-efficient processing as part of our range of services.

Our highly-qualified team and the use of the most up-to-date machines guarantee you excellent results – that's a promise! When you learn about the services which BOPLA offers, you will see how they reduce your own purchasing costs and work or in-house manufacture, so you can concentrate on your own core competences. We are happy to take on the risk of rejects, because our Bünde works achieve almost 100% quality standards.

Our comprehensive range of services includes:

Individual improvement:

- Silk-screen printing
- Pad printing
- Special colours
- Lacquering
- Engraving
- EMC coatings (copper-chrome-nickel evaporation, aluminium evaporation, conductive copper lacquering)

Mechanical processing:

- Cutting/sawing of profile cuts of varying lengths
- Milling, drilling, countersinking, tread-cutting, punching
- Ultrasonic welding of individual mounting points

Mounting work:

- Mounting of subracks, cable glands, battery compartments, tip-up bows, clips, etc.
- Mounting of threaded bushings, bolts and conductive seals
- Mounting of membrane keypads and decor foils
- Gluing work (e.g. gluing in display screens)
- Insertion of included components

Soldering and assembly work:

- Assembly of cables to components and battery contacts
- Wiring

Manufacturing of prototypes and initial samples:

- Fused Deposition Modeling
- Vacuum casting
- Selective laser sintering
- Stereo lithography
- Construction of initial samples
- 3D printing

**Device manufacture:**

- 3D product development
- 3D prototype construction (Fused Deposition Modeling, vacuum casting, selective laser sintering, stereo lithography)
- Manufacture of samples
- Approval tests
- Tool production
- Series manufacture
- Test work and hardness tests (tightness, EMC characteristics, impact resistance)

Provision of 2D and 3D data

We make available on the internet data in 2D and 3D formats for all BOPLA standard enclosures for the development and construction of a complete device. In addition, a 3D tool is available for each enclosure family on our website at www.bopla.de. You can use this 3D tool to look at a three-dimensional model of the enclosures on any PC – no additional installation of software is necessary.

You need samples? No problem!

The quality of our products and services is certain to impress you. We will be happy to send you a sample of the enclosure you require, and in your choice of design. We can meet your requirements in just a few days. Mechanically processed or assembled – see, feel and test our products for yourself.



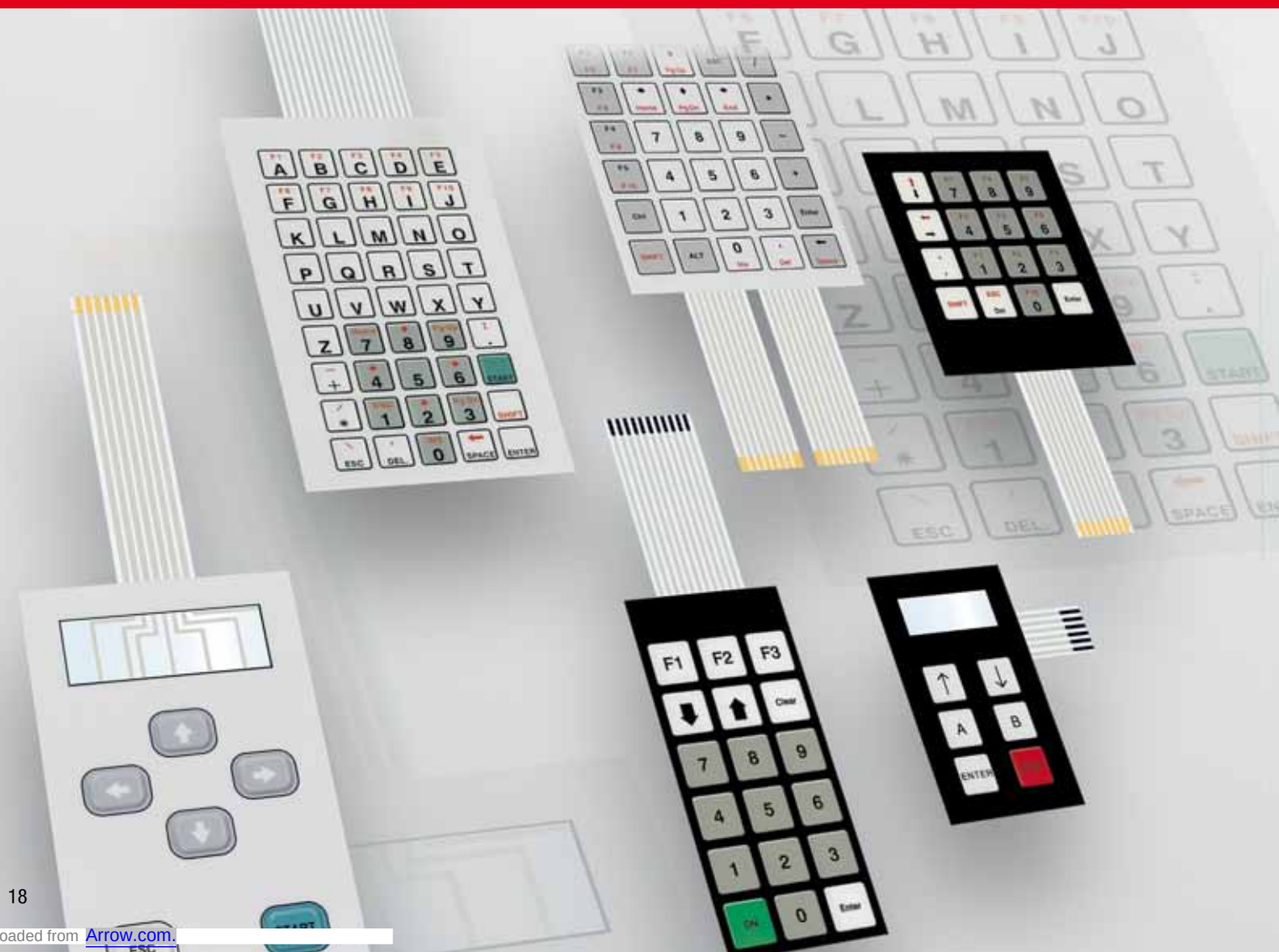
Welcome to BOPLA City!

Input units: Functional, attractive design.

We develop professional input systems for all applications and sectors!

Today, keypads are found in a very wide range of applications. In the industrial sector, in particular, they have to satisfy demands but also be user-friendly and provide customers with an attractive design. This is where BOPLA know-how comes into its own!

The range of applications for our input systems includes medical technology, the automotive industry, and the disposal and recycling industry. When hygiene is of special importance, or when the systems are exposed to extreme external influences – we can supply the right input unit for every sector!



Standard membrane keypads

It doesn't matter whether they are hand-held, desktop or wall-mounted enclosures – our standard keypads are specially designed for BOPLA enclosures, so they can easily and quickly be modified. This is how we give our customers an opportunity to fit membrane keypads at low cost, including for small quantities. **We will also be happy to fit your membrane keypad.**

Customer-specific solutions

You are looking for a membrane keypad with an individual and sophisticated design? Our keypads are manufactured to meet our customers' exact requirements – whether in terms of size, design or colour, matt, semi-gloss or glossy, with or without a window, with a tactile action point, including LEDs or other components, integrated in supporting plates or pre-mounted on our enclosures. We also develop and manufacture input units with short-stroke keys and matching front membranes.

Competence in every field – you can count on us!

We offer maximum competence in all important sectors of technology:

- Copper technology
- FR4 technology (on the basis of a PCB)
- Silver technology
- Profiline technology
- Gloss technology
- Autotex AM – anti-microbial decor
- Touch screens
- Supporting plates
- Capacitive keypads
- Doming technology
- Night design (electro-luminescence technology or Profiline back-lit technology)

Don't hesitate to contact us – we'll be happy to help you!

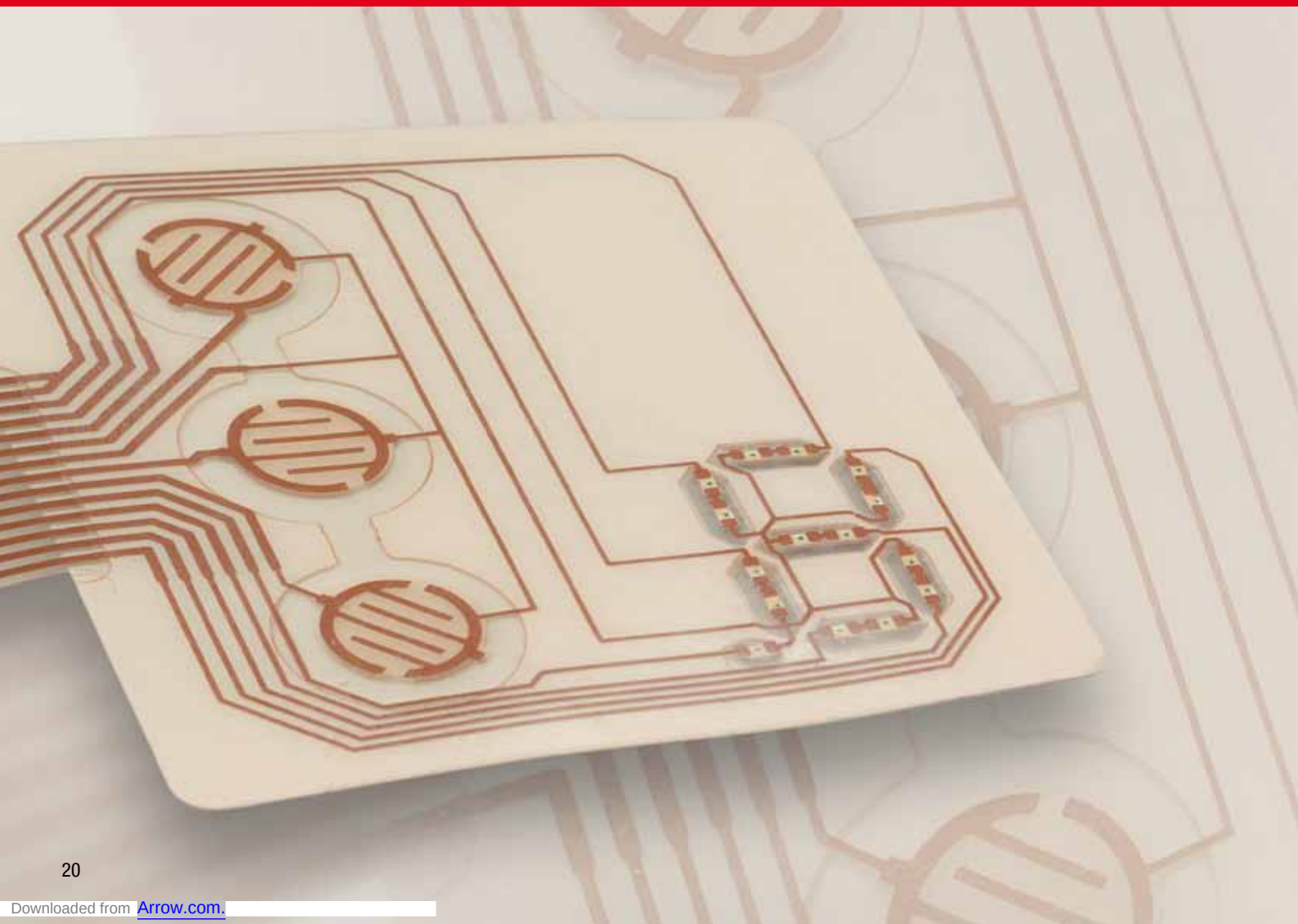


A special feature: **copper technology!**

In contrast to many firms which offer keypads using conductive silver technology, BOPLA manufactures high-quality keypads with copper-laminated base membranes, galvanically silver-plated (gold-plated on request).

The copper-laminated material is extremely flexible, so there is almost no possibility of breaks to the membrane cable, and silver migration is practically impossible.

Instead of using an adhesive as in the case of conductive silver technology, we can safely and permanently solder LEDs, photo diodes or other components, and these are features which give our customers the security they require for everyday use.



Technical data for copper base membrane:

Key area	from 7 x 7 mm
Min. average distance between keys	11 mm
Installation height	from 0.6 mm
Contact surfaces (depending on type)	opper-laminated, silver- or gold-plated, snap domes gold-plated
Switch travel (depending on construction, up to IP 65)	approx. 0.6 – 0.7 mm
Switch pressure, depending on membrane	3 – 5 N
Ingress protection (depending on construction)	up to IP 67
Voltage	1 – 42 VDC
Current	≤ 100 mA
Output	≤ 1 W
Conductor strip resistance* depending on design	< 0.1 m Ω (for 100 mm length – 1 mm width)
Insulation resistance	≥ 100 m Ω
Bouncing time (dep. on actuation)	< 10 msec
Operating life	> 1 mio. operations

Operating temperature:

• For keypads with embossing	0°C to +45°C
• For keypads without embossing	–20°C to +70°C

Transport/storage temperature:

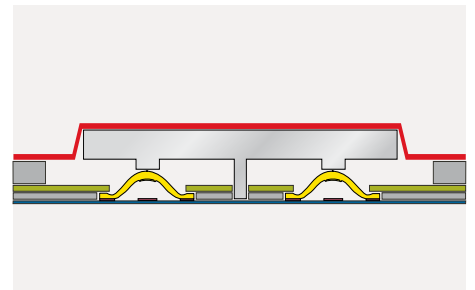
• For keypads with embossing	–30°C to +45°C
• For keypads without embossing	–40°C to +80°C

* Conductor strip resistance depends on the design of the product layout. Conductive silver bridges in CuLS technology increase conductive resistance.



Profiline offers customers important advantages:

- Very good tactile feedback
- Tactile feeling to the key element
- Optimal force distribution means less pressure on the snap dome
- Ideal finger guiding
- Large-surface keypads and contact elements can be manufactured
- Freedom of design for the key shape



The so-called “short-stroke” feeling considerably improves the input interface, including for keys with extremely small or extremely large surfaces.

This is guaranteed by the highly-tactile, robust key element which is fitted between the snap dome and front membrane.

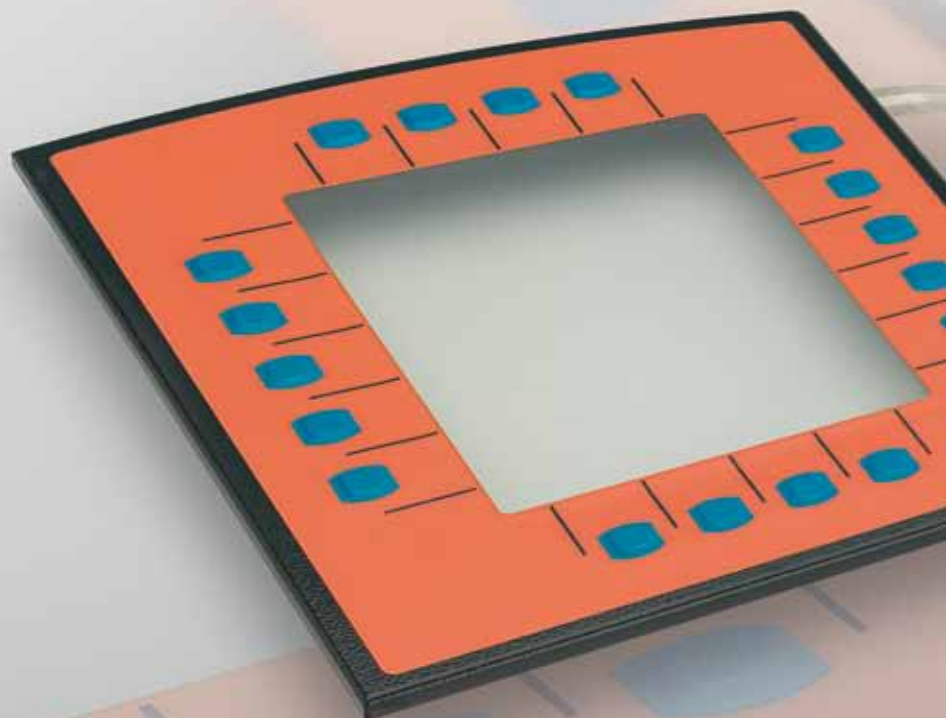
In addition to providing better feedback, the Profiline key areas are also extremely robust. The integrated acrylic inlay gives protection against dust and moisture and also protects the snap dome against possible deformation. Not even heavy point-specific pressure can damage the key areas.

The various trademark rights behind Profiline’s superlative technology are certainly confirmation of our on-going developments to create keypads which offer the best haptic and ergonomic features.

Customers’ special wishes can also be implemented by arranging the inlays as required. The illustration shows a design with a rocker in a +/- key. Even the requirement for a cursor block has already been successfully achieved with Profiline inlays.

Profiline – superlative technology!

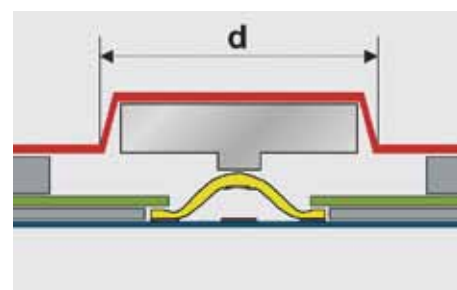
The various trademark rights behind Profiline's superlative technology are certainly confirmation of our on-going developments to create keypads which offer the best haptic and ergonomic features.



Profiline technology

Electrical characteristics:

Voltage	1 – 42 VDC
Consumption	≤ 100 mA
Insulation resistance	> 100 m Ω
Contact bounce time	< 10 ms
Contact element	Snap dome, gold-plated



Mechanical characteristics:

Key geometry	can be designed as required
Key size (d) min.	≥ Ø 8 mm / 8 x 8 mm cornered / corner radii ≥ 1.0 mm [preferably: R 2.0 mm]
Max. key size	260 x 360 mm
Clearance (a) from embossing edge to embossing edge	≥ 10 mm with circular embossing [preferably: 16.0 mm] ≥ 11 mm with parallel embossing edges
Installation height for keypad	1.4 – 1.6 mm (depending on construction) [preferably: 1.6 mm]
Key height	1.0 – 1.5 mm standard 1 mm), tolerance + 0.2 mm
Actuating force	3 – 5 N
Switch actions	> 1 mio.
Operating temperature	–20°C to +70°C (storage temperature –40°C to +80°C)
Membrane polyester; polycarbonate	PETP; PC (blend)
Chemical resistance	List available on request



Night design:

Nowadays there are no limits to the use of electrical equipment in dark surroundings!

Keypads for dark situations – Profiline back-lit

The back-lit Profiline keypad is constructed in a similar way to the standard Profiline keypad, so it offers the decisive features of this technology and provides the well-known advantages for the customer.

One main difference in the construction of the back-lit Profiline keypad is the base membrane which is designed on the basis of an FR4 PCB. An LED is fitted in the middle of the key field on the back of this PCB.

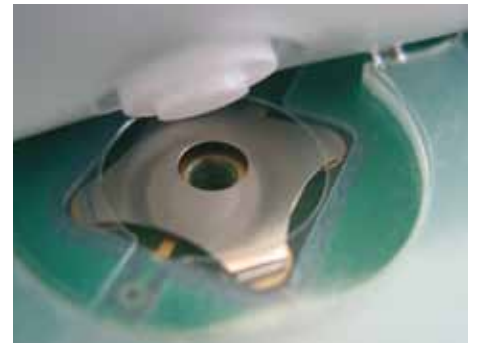
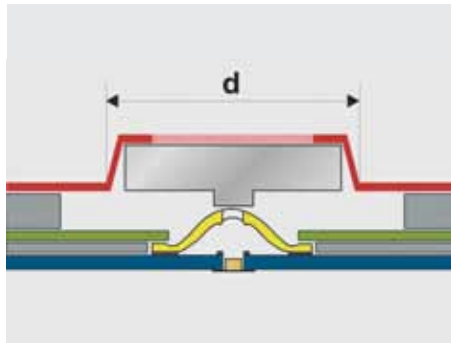
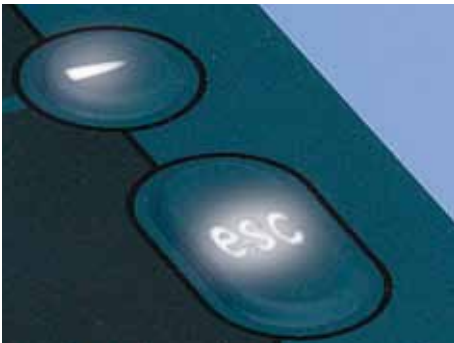
- The key area is clear lacquered, max. $\varnothing$ 10.0 mm
- Key height: approx. 12 mm, tolerance $\pm$ 0.2 mm
- Installation height of the keypad: approx. 2.8 mm, tolerance $\pm$ 10%
- Actuation force: approx 5 N



Electro-luminescence membranes (EL membranes)

There are many constructional advantages to the use of EL membranes, including their low mechanical installation height, flexibility and low power requirements. The homogeneous light distribution in the back-lighting process is an additional advantage.

In contrast to points of light, the electro-luminescent phosphorous particles are evenly distributed on the surface of the membranes, so the membranes emit homogeneous light over the entire surface. This high degree of efficiency means that the EL membranes consume very little power. If electric bulbs or LEDs are replaced with EL membranes, the power consumption is reduced by more than 50%. Almost any design can be created, because EL membranes are manufactured using silk-screen printing.



Profiline back-lit

The back-lit Profiline keypad has additional advantages such as its long operating life, low power consumption and haptic. This technology makes it possible to illuminate the keys separately – the light passes through a hole in the special snap dome into the integrated acrylic inlay, where it is scattered accordingly.

The easy-to-feel key element makes it much easier to use.



Welcome to **BOPLA City!**

State-of-the-art technology – BOPLA's modern, high-quality input systems

The design of our input system ensures a high level of functional safety!

When manufacturing our membrane keypads, we use only high-quality materials which ensure a long operating life under all conditions. Our keypads are tested to guarantee their long-term function.



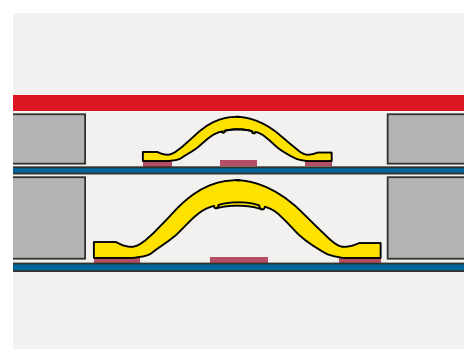
For special occasions – gloss technology

A special type of surface design can be created by using a glossy membrane and a special structure lacquer. The partial glossy sections upgrade the design considerably, giving the keypad a sophisticated and high-quality look and ensuring that it stands out from standard industrial keypads.

For extra protection: double contact

High safety standards demand a high level of reliability, especially when it comes to operating devices and machines. This can be achieved by the use of keypads with two-stage key functions, which is why we offer the keypad with a double-contact function.

The user can easily distinguish between two switch functions, and TÜV requirements for two separate switch levels are easily met.

**Technical features of our membrane keypads:**

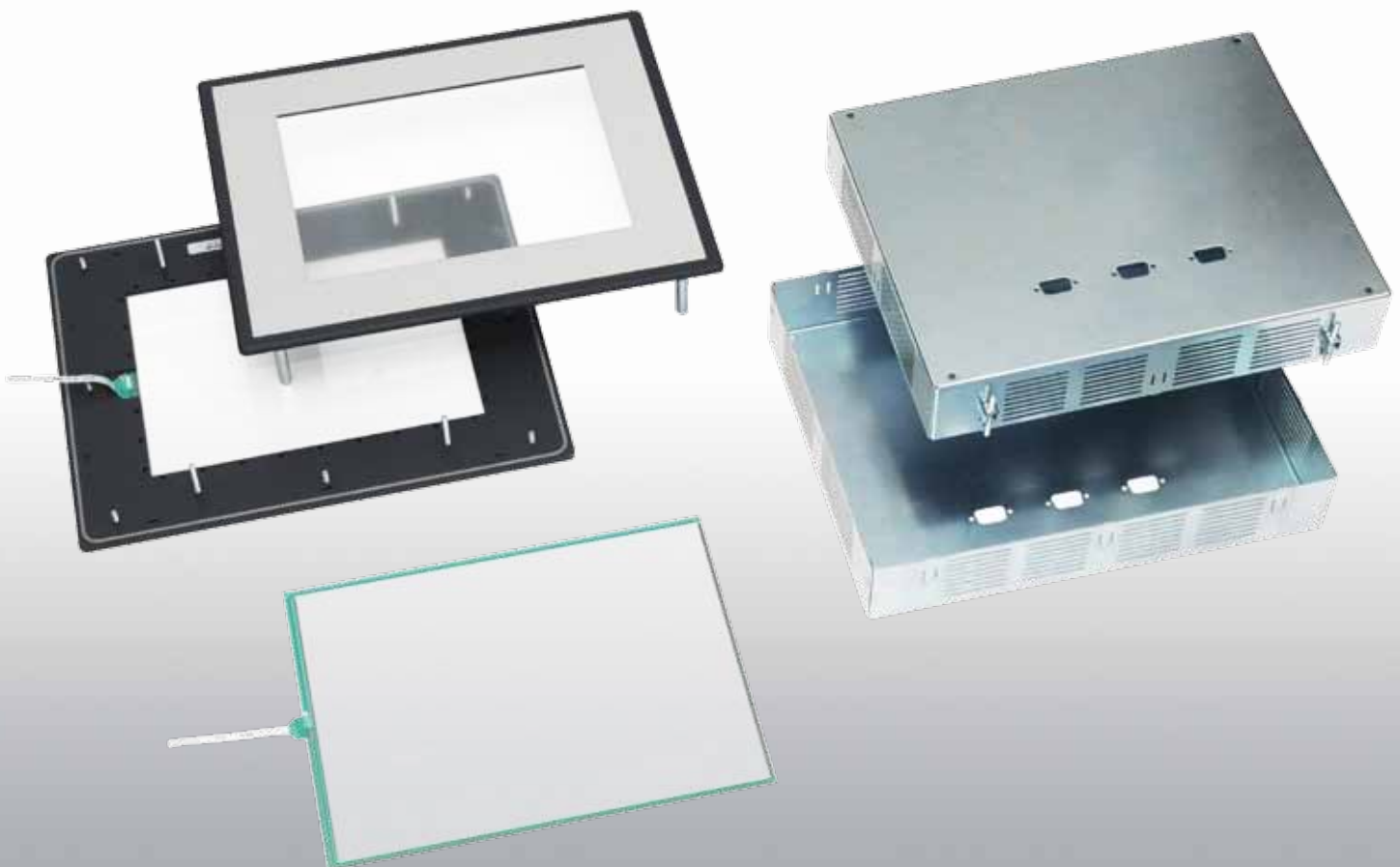
- Contact elements embedded between high-quality polyester membranes
- Stainless steel snap dome with gold-plated contact side
- Safety chamber for each snap dome, depending on design
- Elegant matt front membrane
- Protected against dirt and splashing water acc. to DIN EN 60529
- Base membrane in copper technology or in conductive silver technology



Front panel without/with sheet metal enclosure

Design data already exist for some standard sizes. We can relatively easily modify these to meet your specific needs – in some cases, samples are already available.

There are different ways of fitting the touch screen. For the larger designs in particular, because of the weight and the different coefficients of expansion for the various components (foil, glass, aluminium and adhesive film), we recommend flexible positioning by the punctiform use of casting compound.



Touch screens: control by touch

Graphic user interfaces can be found everywhere today. On many occasions we have successfully implemented the integration of touch screens in connection with our enclosures and membrane keypads.

In the past it was often claimed that touch screens would replace membrane keypads. Our customers see it differently, and increasingly they are calling for a combination of both input systems. In this case, the touch screen takes on the function of a computer mouse, and the inputs can still easily be entered via the keypad.

Integration of touch screens and glass

The integration of touch screens with enclosures or customer-specific supporting plates can be achieved in many ways. For applications such as medical technology or foodstuffs which preclude the presence of edges which might harbour dirt, we also offer solutions with a continuous front membrane, laminated over the entire area or with spacer dots on the back.





Welcome to BOPLA City!

Doming technology

Now we can offer coatings using a clear plastic compound, a process known as “doming”. This allows us to meet special requirements in respect of a sophisticated design just as much as the specifications for comfortable handling. The plastic compound is “self-restoring” – this means that the material reacts to mechanical deformations by returning to its original shape within a short period of time.



Capacitive membrane keypads for high mechanical loads

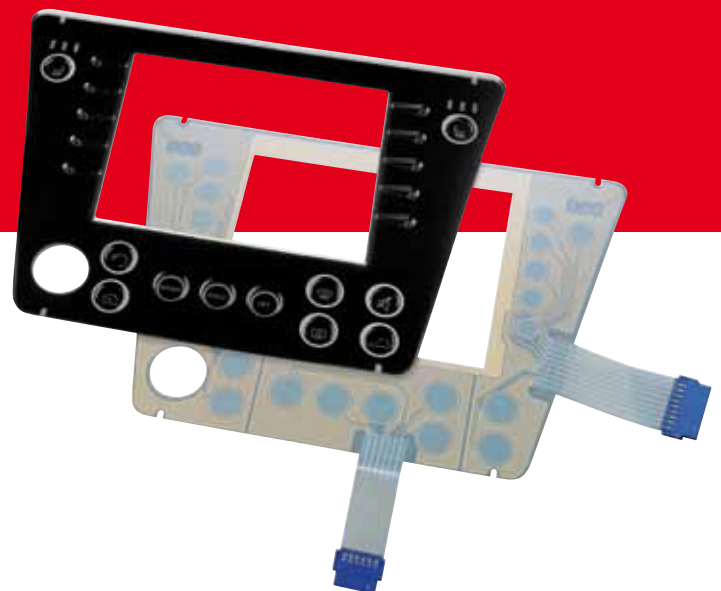
BOPLA is adding capacitive membrane keypads to the range of input units. These keypads are resistant to acids, dirt and other impurities, and are suitable for high mechanical loads. The surface is easy to clean, ensuring optimal standards of hygiene.

Detailed description of product

There is no mechanical connection to the operator, so the keys are not mechanical. The activating element is separated from the operator by means of a smooth surface, e.g. glass, plastic or another kind of non-conductive surface. This ensures that it is very easy to clean the surface, so the device can be used in places which are at risk of vandalism, and also in hygienically clean environments, e.g. the medical and foodstuff sectors. In addition, the smooth surface guarantees that it is possible to operate the device without pressure – a light touch is sufficient. Visual and/or acoustic signals can compensate for the lack of tactile feedback. Keypads and switches which operate on the capacitive principle can be set up as individual keys or as arrays, so any shape of key is possible, including individual layout designs.

Technical implementation

The sensor surface of the key consists of two sections which are insulated from each other (transmitting and receiving electrode). On the transmitting side, vibrations are generated which are transferred to the receiving electrode by means of capacitive coupling. When the finger comes into contact with the key surface, the capacity of the human body is switched to the receiver. The transmitted signals are damped, and “switch impulses” are detected and evaluated. Digital filters and specially adapted algorithms ensure that both short spurious signals and slow changes (rain, mist etc.) cannot result in any malfunctions.

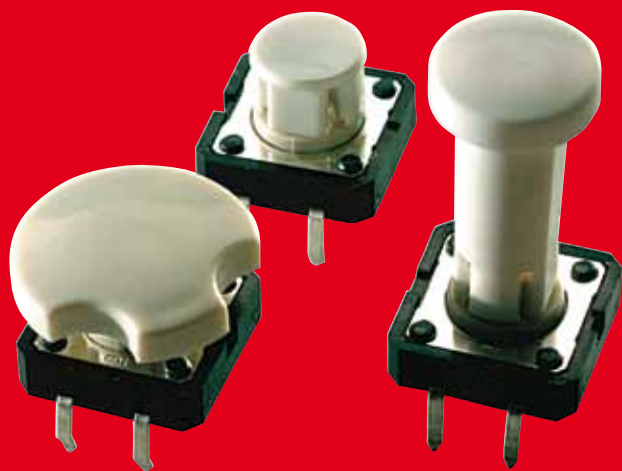


Different design versions

The complete capacitive operating unit consists of 3 elements: capacitive sensors, evaluating electronics, and the actual operator surface (normally glass or plexiglass).

In many cases, the sensors and the evaluating electronics are placed on the same PCB. However, when the key surfaces need to be backlit, or the surface is curved or warped, the PCB cannot be mounted directly behind the display. For this situation, we recommend the use of a separate sensor film in which the sensor surfaces are screen-printed onto a polyester film and connected to the electronics via the membrane ribbon cable. The LEDs are also fitted on the PCB, which is at a defined distance from the front, in order to illuminate all the surface areas of the keys.

Short-stroke keys



Key caps

Ø 7.4 mm
Ø 10 mm
Ø 15 mm

Minimum distance

13 mm or 14 mm
16 mm
19 mm

The key caps are simply clipped onto the keys. The use of different key cap lengths makes it possible to fit higher components, such as LCD displays, on the same PCB. Different key cap diameters make it possible to choose the minimum distance – centre point to centre point – between the individual short-stroke keys.

The front panel supports the complete input system. The front membrane is laminated onto the front of the supporting plate. Printing is applied to the rear, so it is protected against environmental influences such as moisture, dirt, chemicals, etc. High-embossed front membranes make the switch especially precise to the touch. The PCB with the short-stroke keys is normally 1.5 mm thick and contacted. It is fitted to the supporting plate by means of stud bolts, and the correct clearance is maintained by means of distance sleeves. In addition to the special front membrane and supporting plate, you can also order special short-stroke keys for your keypad.

Short-stroke key for 1.3 N

Designation

KHT 1070 TK Ø 7.4
KHT 1100 TK Ø 10
KHT 1150 TK Ø 15
KHT 1151 TK Ø 15 LED

KHT 1070 TM

KHT 1100 TM

KHT 1150 TM

KHT 1151 TM

KHT 1070 TL

KHT 1100 TL

KHT 1150 TL

KHT 1151 TL

Order no. consisting of:

Short-stroke keys

70714050
70714050
70714050
70 714050

70714050

70714050

70714050

70714050

70714050

70714050

70714050

70714050

Key cap

70070001
70100001
70150001
70150011

70070002

70100002

70150002

70150012

70070003

70100003

70150003

70150013

Short-stroke key for 2.6 N

Designation

KHT 2070 TK
KHT 2100 TK
KHT 2150 TK
KHT 2151 TK

KHT 2070 TM

KHT 2100 TM

KHT 2150 TM

KHT 2151 TM

KHT 2070 TL

KHT 2100 TL

KHT 2150 TL

KHT 2151 TL

Order no. consisting of:

Short-stroke keys

70724055
70724055
70724055
70724055

70724055

70724055

70724055

70724055

70724055

70724055

70724055

70724055

Key cap

70070001
70100001
70150001
70150011

70070002

70100002

70150002

70150012

70070003

70100003

70150003

70150013

Designation

Switch travel	approx. 0.3 mm	
Actuation force	approx. 1.3 N	approx. 2.6 N
Operating life	≥ 0.3 x 10 ⁶	≥ 0.3 x 10 ⁶
Bouncing time	≤ 5 msec	
Operating temperature	-25°C to +70°C	

Insulation resistance	109 Ω
Volume resistivity	100 m Ω
Max. voltage	24 VDC
Min. voltage	0.05 VDC
Switch capacity	50 mA / 24 VDC

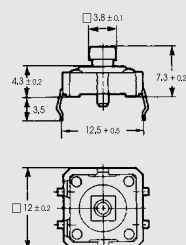
Short-stroke keys with key caps

Short-stroke key, not illuminated, variable height by using different key caps □ 12 mm

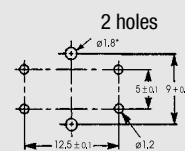
Actuation force	Contact material	Switch travel
1.3 N	Ag	0.3 mm
2.6 N	Ag	0.3 mm

Washable type and gold contact type available on request.

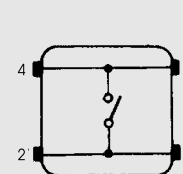
Dimension diagram



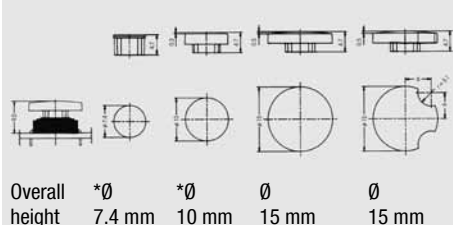
Drill-hole diagram



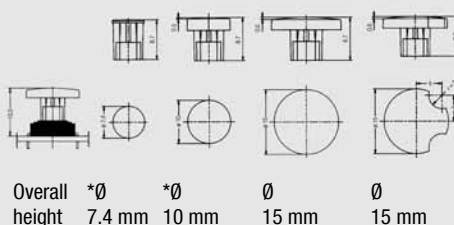
Circuit diagram



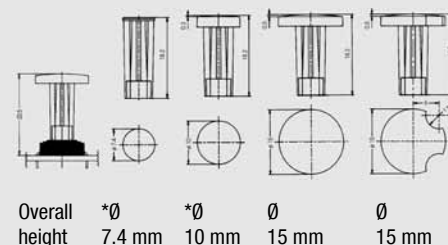
Short-stroke keys, short type



Short-stroke keys, medium type



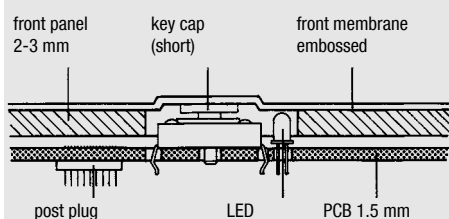
Short-stroke keys, long type



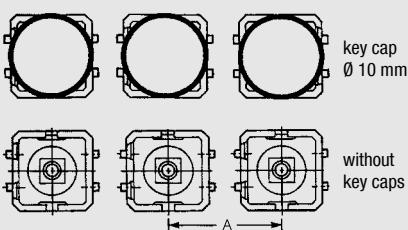
* Short-stroke keys with Ø 7.4 mm and Ø 10 mm key caps can only be used with high-embossed front membrane.

General information on designs

e.g. short key



Arrangement of the keys Standard



Openings in front panel 1) without LED

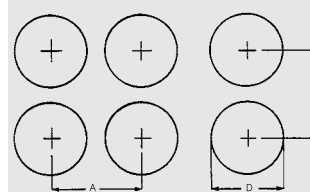
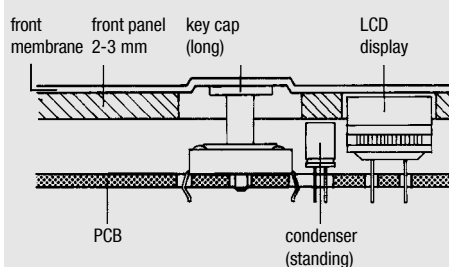


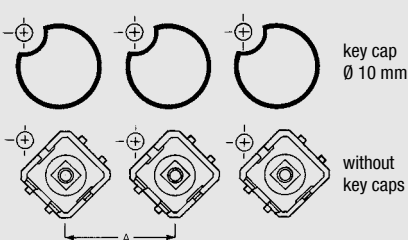
Table of dimensions

Key cap-Ø	D = Ø	A at least
7.4 mm	10 mm	13 (14) mm
10.0 mm	12 mm	16 mm
15.0 mm	16 mm	19 mm

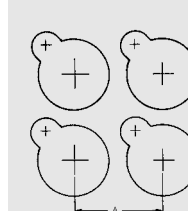
e.g. long key



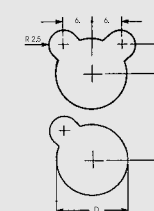
Arrangement of the keys with separate LED



2) with 1 LED as in table above, tog. R = 2.5 mm

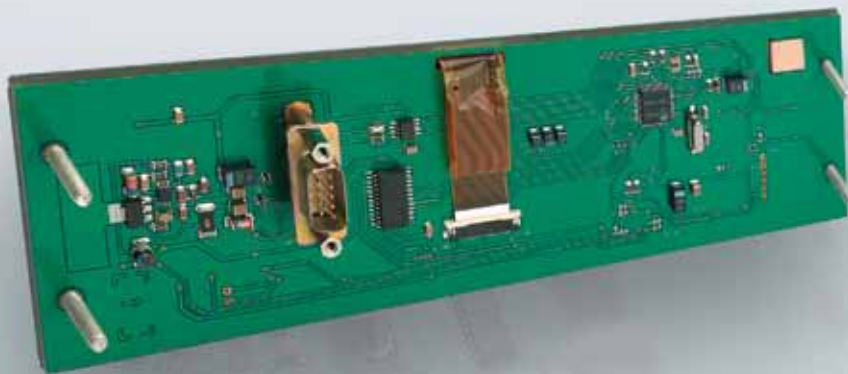


3) with 2 LEDs



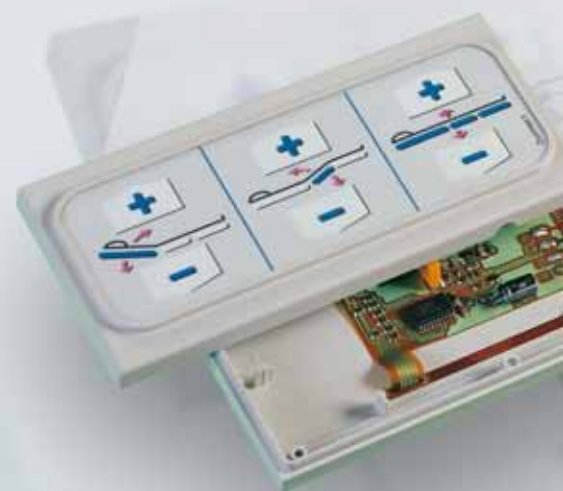


We are the competent and reliable partner at your side when you need solutions for your electronics!



Low cost: keypad without supporting plate

By using a direct combination of keypad fields and PCBs, there is no need for a supporting plate.



Genius and simplicity combined: FT-E technology

The sheer simplicity of our FT-E technology will fascinate you: the input unit (FT) and the accompanying electronics (E) are on the same carrier material, without any expensive connectors which are susceptible to defects.

We supply your complete membrane keypad, including PCB and fitted with active and passive components such as LEDs, resistors etc. First the various membrane layers and switch elements are assembled on the PCB, and then the outer edges are milled or punched and the required components fitted to the extended base membrane.

In this case, the thickness of the PCB material (FR4 etc.) is selected so as to ensure that the stability is comparable with that of a metal supporting plate. Threaded bolts can be fitted, and openings or relief milling are possible. The decor layer is then fitted to the front in the same way as a conventional keypad. Using this method results in considerable savings for our customers.





System technology

Electronics services

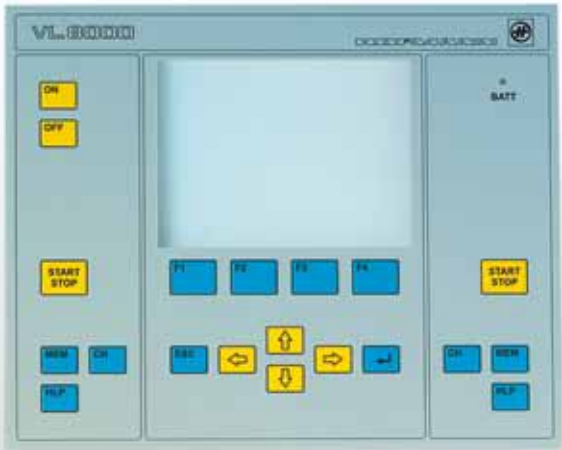
Enclosures

Standard enclosures made of plastic or aluminium, 19" enclosure systems, subracks or customer-specific special enclosures – BOPLA provides the ideal enclosure for every application.



Input units

Modern systems require professional input units at the all-important interface between human operator and machine. Designing keypads which are both functional and attractive is what we do every day. Individual customised solutions are a special feature of our work. Any new developments introduced are all based on everyday practice and are the result of constructive and ongoing dialogue with our customers.



System technology

For you, "system solution" means that we provide a complete range of intelligent services tailor-made to create your ideal application. For more than 40 years, BOPLA has been your reliable partner for sophisticated solutions in complicated situations. We have constantly extended and perfected our range of services. You are certain to benefit from our competencies in the enclosure, input unit, and electronics services sectors. We look forward to talking to you!

Electronics

We accompany you from the development of the module to the materials logistics and production, right up to the complete mounting of your individual module.

Service

We offer a wide range of services, from the mechanical processing of our enclosures to engraving and printing, up to assembly of the electronic modules. The latest machines and a highly-qualified team guarantee 100% results for you: the work which is carried out on BOPLA's premises greatly reduces your risk of rejects.

Electronics services

Do you need the most modern manufacturing technologies and competent advice before, during and after the project? Then take advantage of our expertise! We are the professional partner you can rely on when it comes to developing system solutions. You, the customer, can take advantage of our many years of experience in designing and manufacturing enclosure systems, input units and electronics services.





Welcome to **BOPLA City!**

Enclosures

It is often difficult to find a suitable enclosure. There is a wide range of products on the market, which is why good advice is so important. BOPLA is your competent partner for every type of enclosure.

You can choose between aluminium and plastic enclosures, and also according to the level of ingress protection that your enclosure needs. We offer you a wide range of products.

There are more details in the individual enclosure groups.

We are here to help you when you are looking for an enclosure in our comprehensive product range, which includes the following types of enclosures:

- Hand-held enclosures
- Desktop enclosures
- Console enclosures
- Wall-mounted enclosures
- Display enclosures
- DIN rail enclosures
- Control panel mounting enclosures
- Operating panel enclosures
- Terminal enclosures
- 19" enclosures
- Switch cabinet enclosures
- Backplane enclosures



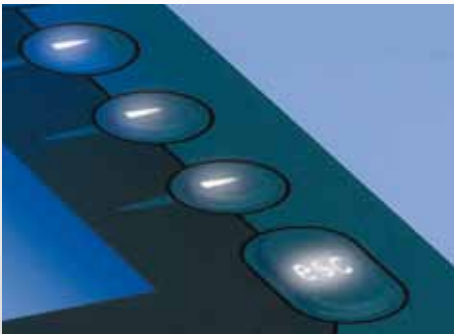
Input units

State of the art technology: The design of our input units ensures the extremely high quality of their function.

When manufacturing our input units, we only use materials which guarantee a long operating life in every situation. Put your trust in us and our expert knowledge.

We offer a wide range of input units. Our consultants will be happy to help you on your premises when you are looking for suitable technology for your application.

The details are in the chapter on input units.





Electronics services

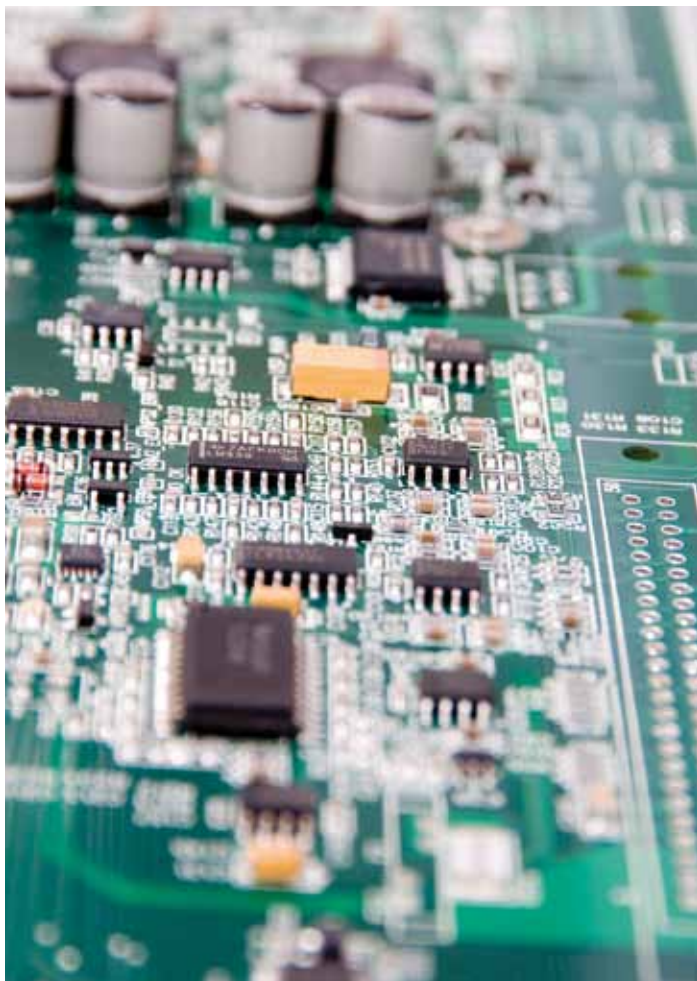
Procurement, warehousing and preparation for manufacturing

After a thorough concept phase during which we give you full information and an overview of costs for your final product, our actual performance begins with the procurement phase.

We are part of the Phoenix-Mecano group, so our purchasing department is able to operate worldwide and is always in contact with the established distributors of components and PCBs. We always have a large number of standard components in stock, so we can react quickly at any time. Manufacturing batches starting with just 1 piece!

The many machines in our company-owned insertion firm make possible the optimal preparation of the PCBs and components, e.g.:

- Manual bending and cutting equipment for axial components
- IC bending device
- Paste printing as preparation for SMD placement



Mounting and soldering

Some key data about possibilities for electronics manufacture:

- Insertion of up to 100,000 construction elements per hour possible
- Paste printing on two automatic machines using lasered templates
- Standard soldering processes under a protective atmosphere

We solder using the following methods:

Reflow soldering

- Reflow oven SMT full convection machine
- PCB width up to max. 400 mm
- Special sizes available on request

Vapour phase soldering

The vapour phase soldering machine guarantees a constant soldering temperature for the entire module.

Wave soldering

- Wave soldering machine, conforms to RoHS
- Full tunnel machine with preheating stations, spray fluxer and cooling tunnel
- Produces all standard soldering profiles
- Soldering process under protective gas atmosphere

Selective soldering

- Soldering of temperature-sensitive components
- Soldering on fitted modules
- High level of reproducibility compared with manual soldering
- Selective heat introduction means no need for expensive soldering masks and coverings



Services

In addition to services such as mechanical processing, printing, lacquering, EMC coating and engraving, we also offer you electronics-related services for your products.

This include PCB, wire and cable assembly (flat cable, coaxial cable, control cables and complex cable harnesses). On request, we also carry out AOI and ICT tests. Of course, function tests and component tests using test adapters are also possible. Finally, we assemble the electronics in the enclosure you have selected, and fit the input unit. Packaging which is appropriate for the sales process completes our service offer.



Applications



We look forward to meeting you and creating your solution. This starts with an analysis of requirements and continues with procurement and manufacture until final assembly and delivery take place.

And then it's done: the complete solution is ready for delivery to the end customer! Now you can be absolutely certain that all BOPLA components are of high quality and have undergone several tests. You have saved a lot of time, effort and money because you are working with a competent supplier who offers you the complete package to meet every requirement.

We have already implemented large numbers of complete solutions for customers in very many sectors:

- Safety engineering
- Medical technology
- Automotive technology
- Telecommunications
- Building automation
- Audio technology
- Opto-electronics
- Agricultural technology
- ...



Welcome to BOPLA City!

Electronic – CompactPCI System Platform

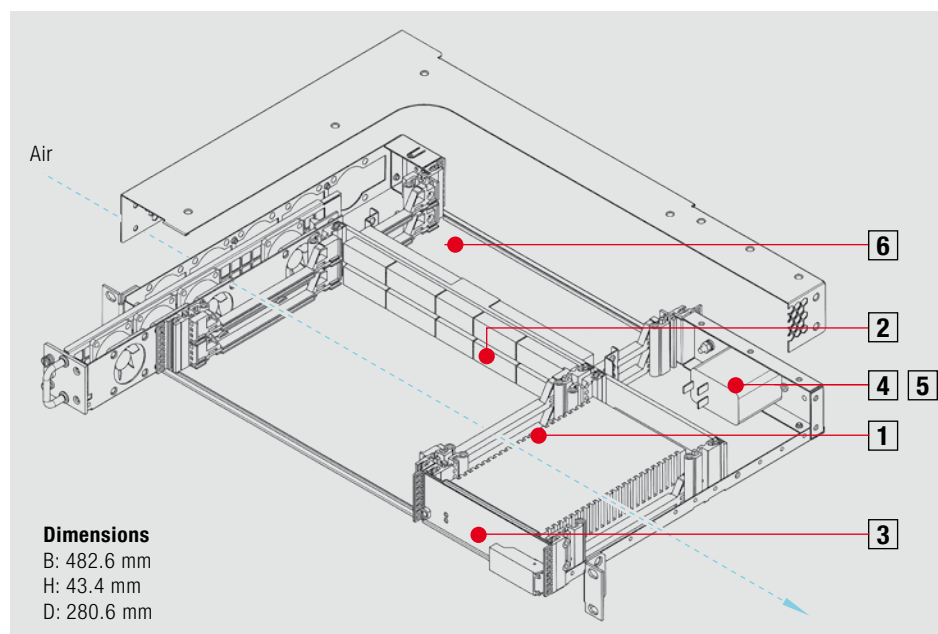
As part of our services in the electronics sector, and in cooperation with our company-owned backplane specialists, we can offer you three PICMG-compliant CompactPCI system platforms which satisfy all requirements in respect of performance, sturdiness and reliability. The system platforms were tested according to railway standard DIN-EN-61373 and military standard MIL-STD-810F. Of course, these can also be integrated in our comprehensive 19" enclosure range. The 19" Internorm product series is predestined for installation of the CompactPCI platforms.

In addition, at all times we do of course offer manufacture of additional standardised system platforms and backplanes, or, alternatively, products which match your own individual wishes and guidelines – our 19" team will be happy to advise you!



CPCI Basic 1 U

84 HP with fan drawer / depth 280 mm



- 1** 1 x CompactPCI card rack: black coating outside (RAL9005), with IEEE guide rails and ESD clip mounted on the right side
- 2** 1 x CompactPCI backplane: 6+3 U, 2 slots, 64-bit / 33 MHz, V(I/O) = 5 V, system slot on left side, with rear I/O and P47 connector
- 3** 1 x CompactPCI power supply unit 250 W with wide range input 90 – 264 V_{AC} (3.3 V / 33 A, 5 V / 33 A, 12 V / 5.5 A, –12 V / 1 A) with PFC, with P47 connector, incl. front panel 3 U / 8 HP
- 4** 1 x Power supply connector with switch, fuse and filter
- 5** 1 x Partial front panel 8 HP / 3 U with EMC spring on both sides, with cutout for power supply connector
- 6** 1 x Hotswap fan drawer with 4 DC fans, 40 x 40 x 28 mm, 11.3 CFM, 37 dB(A), with LED indicator for the DC fans, replaceable filters (class G1) included

Essential features at a glance

- 1 U / 84 HP Compact PCI system platform with rear I/O, for horizontal installation of 6 U cards
- Card rack acc. to IEEE 1101.1, 1101.10 / 11 and IEC 60297-3-101, -102, -103
- CompactPCI backplane: 2 slots, 5 V
- 250 W CompactPCI power supply
- Hotswap fan drawer with filter and LED indicator
- Cooled by 4 fans (air flow from left to right)
- Completely assembled and wired

Order no.

85281870.H

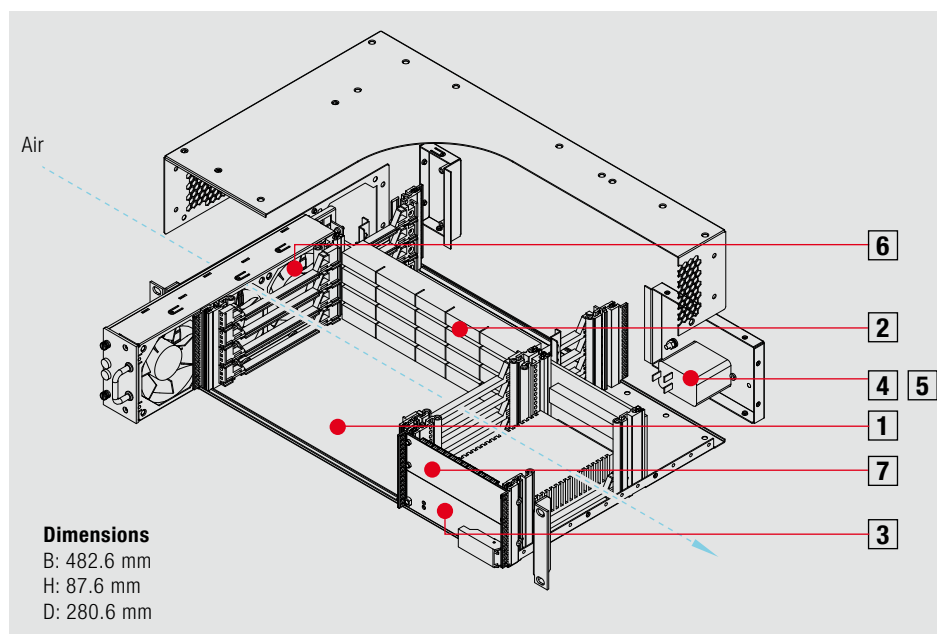
Note

CPCI system platform 2 slots 5 V 64-bit 84 HP / 1 U with fan drawer



CPCI Basic 2 U

84 HP with fan drawer / Depth 280 mm



- 1** 1 x CompactPCI card rack: black coating outside (RAL9005), with IEEE guide rails and ESD clip mounted on the right side
- 2** 1 x CompactPCI backplane: 6+3 U, 4 slots, 64-bit / 33 MHz, V(I/O) = 5 V, system slot on left side, with rear I/O and 2 P47 connectors
- 3** 1 x CompactPCI power supply unit 250 W with wide range input 90 – 264 V_{AC} (3.3 V / 33 A, 5 V / 33 A, 12 V / 5.5 A, –12 V / 1 A) with PFC, with P47 connector, incl. front panel 3 U / 8 HP
- 4** 1 x Power supply connector with switch, fuse and filter
- 5** 1 x Partial front panel 16 HP / 3 U with EMC spring on both sides, with cutout for power supply connector
- 6** 1 x Hotswap fan drawer with 3 DC fans, 80 x 80 x 25 mm, 36.4 CFM, 29 dB(A), with LED indicator for the DC fans, replaceable filters (class G1) included
- 7** 1 x Blanking plate 8TE / 3HE with EMC spring

Essential features at a glance

- 2 U / 84 HP Compact PCI system platform with rear I/O, for horizontal installation of 6 U cards
- Card rack acc. to IEEE 1101.1, 1101.10 / 11 and IEC 60297-3-101, -102, -103
- CompactPCI backplane: 4 slots, 5 V
- 250 W CompactPCI power supply
- Hotswap fan drawer with filter and LED indicator
- Cooled by 3 fans (air flow from left to right)
- Completely assembled and wired

Order no.

85282870.H

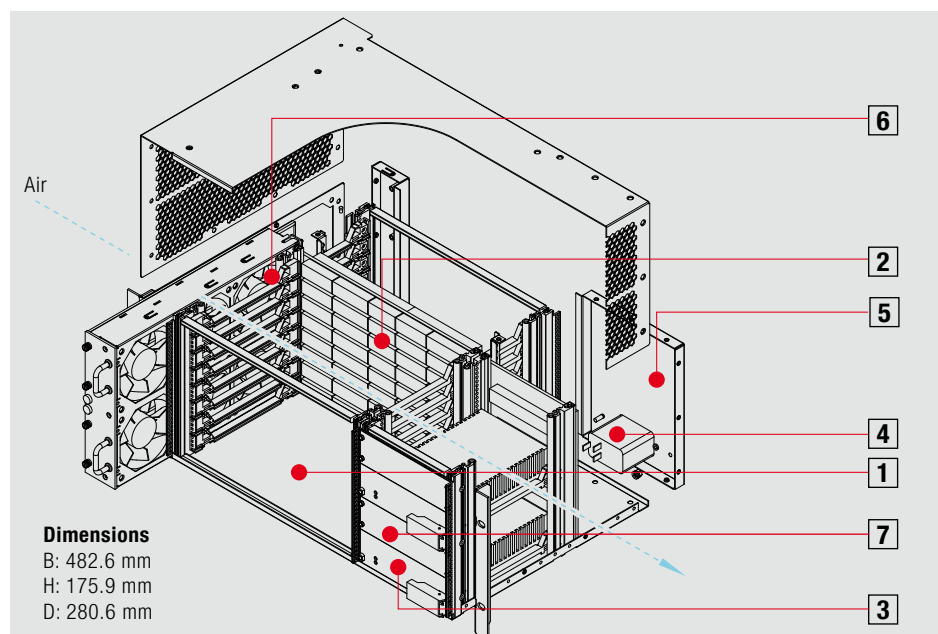
Note

CPCI system platform 4 slots 5 V 64-bit 84 HP / 2 U with fan drawer



CPCI Basic 4 U

84 HP with fan drawer / Depth 280 mm



- 1** 1 x CompactPCI card rack: black coating outside (RAL9005), with IEEE guide rails and ESD clip mounted on the right side
- 2** 1 x CompactPCI backplane: 6+3 U, 8 slot, 64-bit / 33 MHz, V(I/O) = 5 V, system slot on left side, with rear I/O, with 4 P47 connectors
- 3** 2 x CompactPCI power supply unit 250 W with wide range input 90 – 264 V_{AC} (3.3 V / 33 A, 5 V / 33 A, 12 V / 5.5 A, –12 V / 1 A) with PFC, with P47 connector, incl. 3 U / 8 HP front panel
- 4** 1 x Power supply connector with switch, fuse and filter
- 5** 1 x Partial front panel 32 HP / 3 U with cutout for power supply connector, EMC spring
- 6** 1 x Hotswap fan drawer with 6 DC fans, 80 x 80 x 25 mm, 36.4 CFM, 29 dB(A), with LED indicator for the DC fans, replaceable filters (class G1) included
- 7** 2 x Blanking plate 8 HP / 3 U with EMC spring

Essential features at a glance

- 4 U / 84 HP CompactPCI system platform with rear I/O, for horizontal installation of 6 U cards
- Card rack acc. to IEEE 1101.1, 1101.10 / 11 and IEC 60297-3-101, -102, -103
- CompactPCI backplane: 8 slots, 5 V
- 2 x 250 W CPCI power supplies
- Hotswap fan drawer with filter and LED indicator
- Cooled by 6 fans (air flow from left to right)
- Completely assembled and wired

Order no.

85284870.H

Note

CPCI system platform 8 slots 5 V 84 HP / 4 U with fan drawer





Botego

This flexible ABS enclosure system creates an individual design by using various standard components

- 4 basic sizes
- For horizontal or vertical use
- 3 standard heights
- Other heights available by using extension sets
- Design with or without air vents
- Locking of the enclosure parts; also screwable (option)
- Design elements and caps in 6 colours
- Angled front
- Front/rear panel, aluminium, plug-in and screwable
- Good stackability
- Flat wall mounting possible
- Comprehensive range of accessories



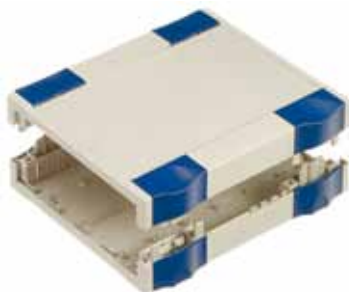
Colour	Light grey, similar to RAL 7035; special colours on request
Protection class	Plain: IP 40/DIN EN 60529; with air vents: IP 30/DIN EN 60529
Enclosure material	ABS; for details see technical data

The enclosure height (or width for vertical use) can be extended by using 15.24 mm grid extension sets (3 HP). Bosses for self-tapping screws are provided in the enclosure shells. The boss diameters correspond to – among others – Euro card formats. The enclosures contain additional slots for boards, mounting plates, etc. Ventilation can be changed by turning the half shells: Air vents are mounted directly over each other and allow optimal ventilation of components which are especially heat-intensive. If the vents are displaced in respect of each other, the entire interior of the enclosure is ventilated diagonally. Special 19" subracks can be fitted. The set of filling profiles (accessories) is used to close the

space above and below the subrack. Standard part front panels can be fitted using the TF profile set. The enclosure system is equipped as standard with robust snap-lock technology, so the half-shells can be assembled quickly without tools. If more than one extension set is used, and for especially heavy equipment, the enclosure parts can be screwed in with the set of screws (optional accessory). The caps (please order separately) are available in 4 different application designs, each in 6 colours. Colour-matched design elements (accessories) give the enclosure an individual look.



Botego BO 320.. (L)



Enclosure, plain

Model	Order no.	A	B	C	c1	Note
BO 32006	68320060	174	196,9	49,96	31,28	6 HP
BO 32009	68320090	174	196,9	65,2	46,52	9 HP
BO 32012	68320120	174	196,9	80,44	61,76	12 HP

Scope of delivery: 2 half-shells

Note: See following pages for accessories.
Caps are not included in the scope of delivery.

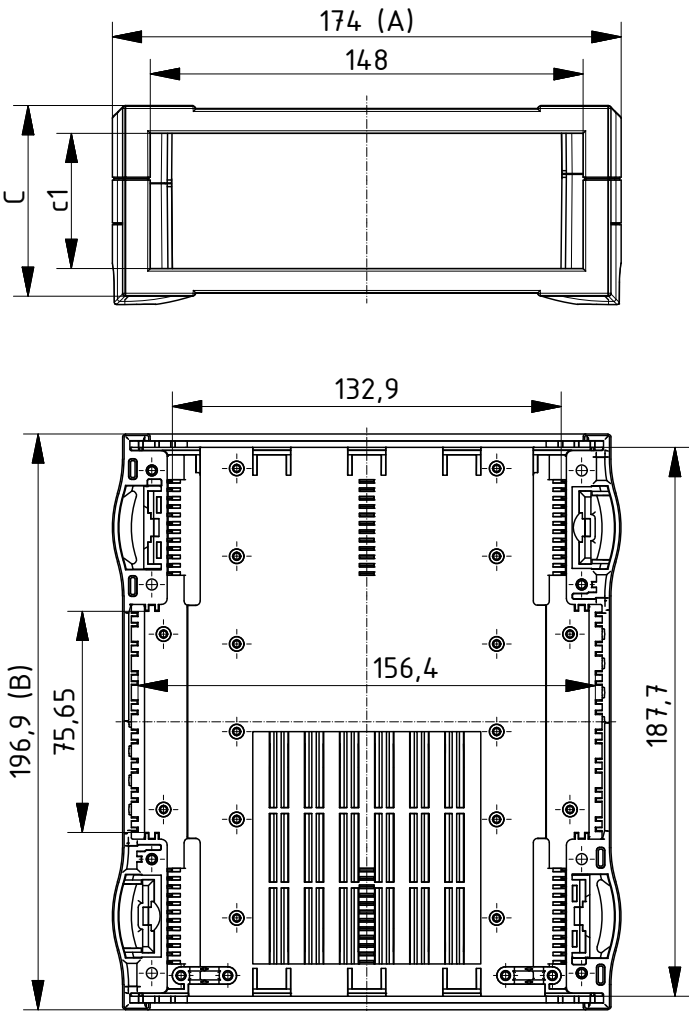


Enclosure with air vents

Model	Order no.	A	B	C	c1	Note
BO 32006 L	68320061	174	196,9	49,96	31,28	6 HP
BO 32009 L	68320091	174	196,9	65,2	46,52	9 HP
BO 32012 L	68320121	174	196,9	80,44	61,76	12 HP

Scope of delivery: 2 half-shells

Note: See following pages for accessories.
Caps are not included in the scope of delivery.



Z-2803193

Botege B0 514.. (L)

Enclosure, plain

Model	Order no.	A	B	C	c1	Note
B0 51406	68514060	240,675	136,9	49,96	31,28	6 HP
B0 51409	68514090	240,675	136,9	65,2	46,52	9 HP
B0 51412	68514120	240,675	136,9	80,44	61,76	12 HP

Scope of delivery: 2 half-shells

Note: See following pages for accessories.
Caps are not included in the scope of delivery.

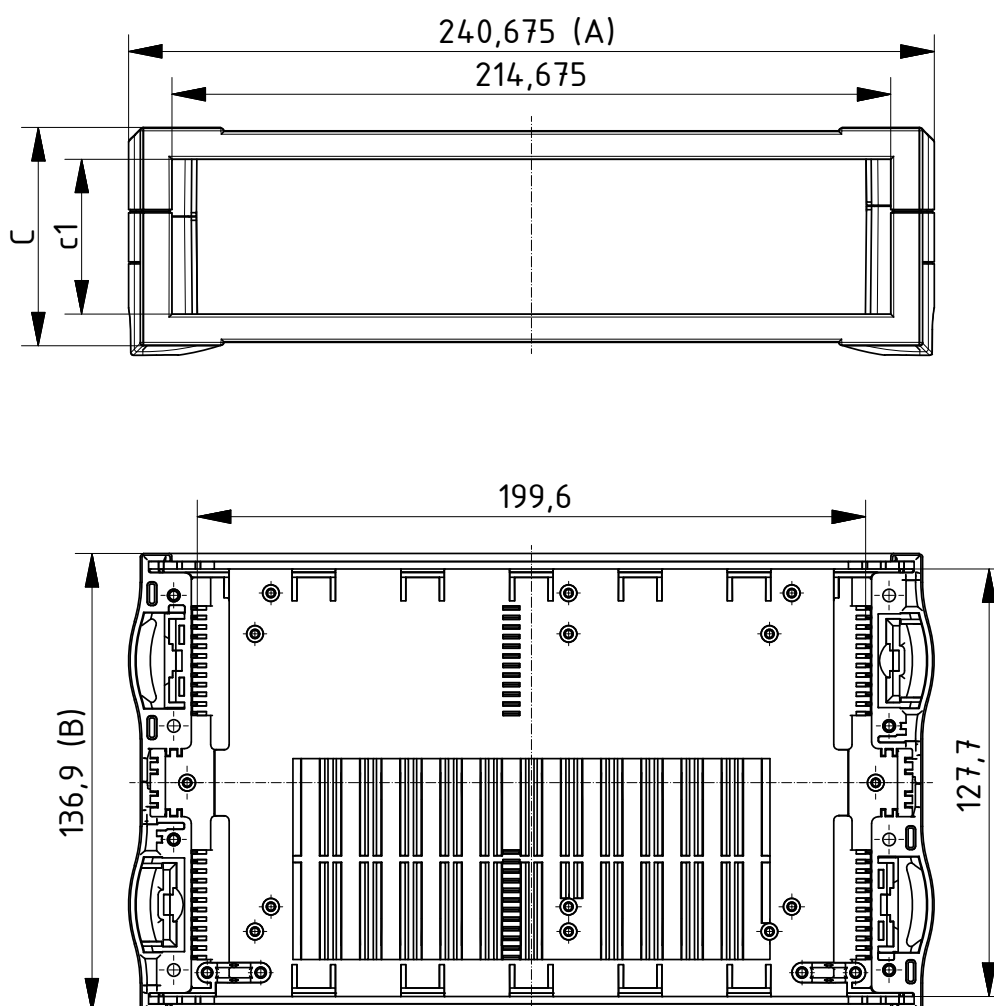


Enclosure with air vents

Model	Order no.	A	B	C	c1	Note
B0 51406 L	68514061	240,675	136,9	49,96	31,28	6 HP
B0 51409 L	68514091	240,675	136,9	65,2	46,52	9 HP
B0 51412 L	68514121	240,675	136,9	80,44	61,76	12 HP

Scope of delivery: 2 half-shells

Note: See following pages for accessories.
Caps are not included in the scope of delivery.



Z-2803194

Botego BO 520.. (L)



Enclosure, plain

Model	Order no.	A	B	C	c1	Note
BO 52006	68520060	240,675	196,9	49,96	31,28	6 HP
BO 52009	68520090	240,675	196,9	65,2	46,52	9 HP
BO 52012	68520120	240,675	196,9	80,44	61,76	12 HP

Scope of delivery: 2 half-shells

Note: See following pages for accessories.
Caps are not included in the scope of delivery.

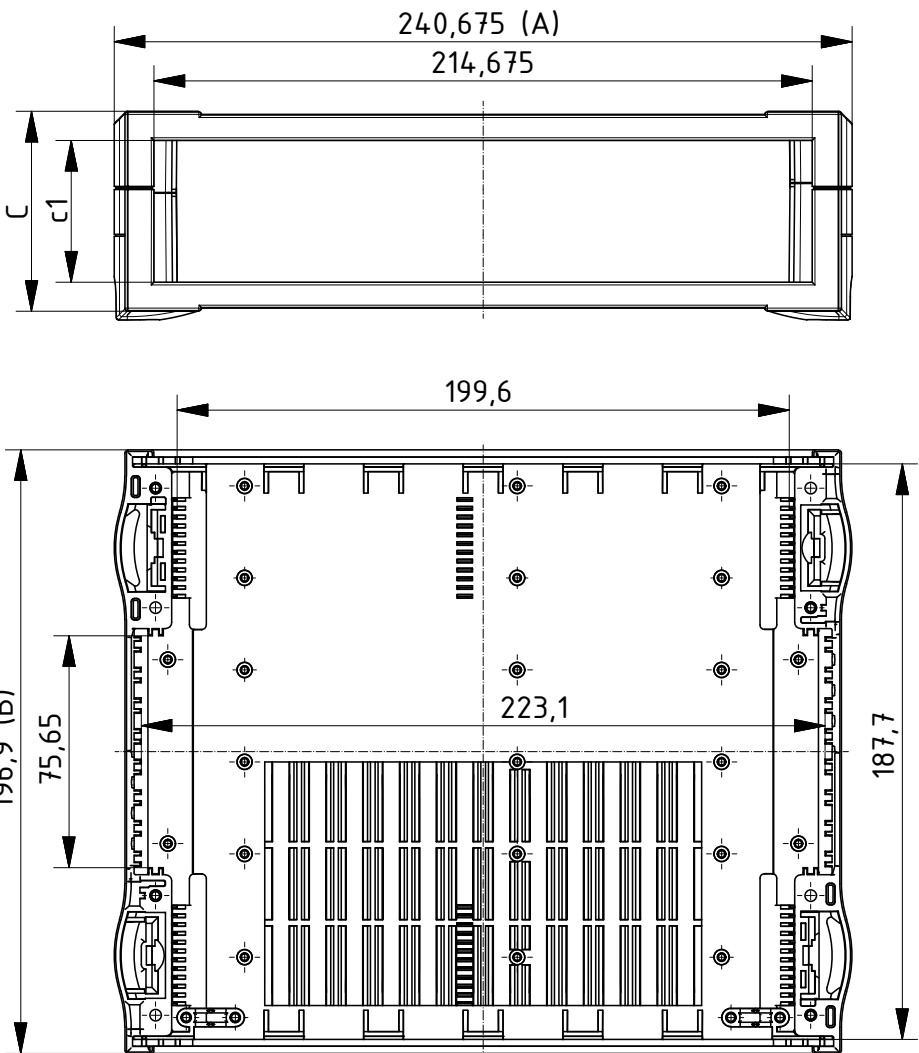


Enclosure with air vents

Model	Order no.	A	B	C	c1	Note
BO 52006 L	68520061	240,675	196,9	49,96	31,28	6 HP
BO 52009 L	68520091	240,675	196,9	65,2	46,52	9 HP
BO 52012 L	68520121	240,675	196,9	80,44	61,76	12 HP

Scope of delivery: 2 half-shells

Note: See following pages for accessories.
Caps are not included in the scope of delivery.



Z-2803195

Botege BO 626.. (L)

Enclosure, plain

Model	Order no.	A	B	C	c1	Note
BO 62606	68626060	307,35	256,9	49,96	31,28	6 HP
BO 62609	68626090	307,35	256,9	65,2	46,52	9 HP
BO 62612	68626120	307,35	256,9	80,44	61,76	12 HP

Scope of delivery: 2 half-shells

Note: See following pages for accessories.
Caps are not included in the scope of delivery.

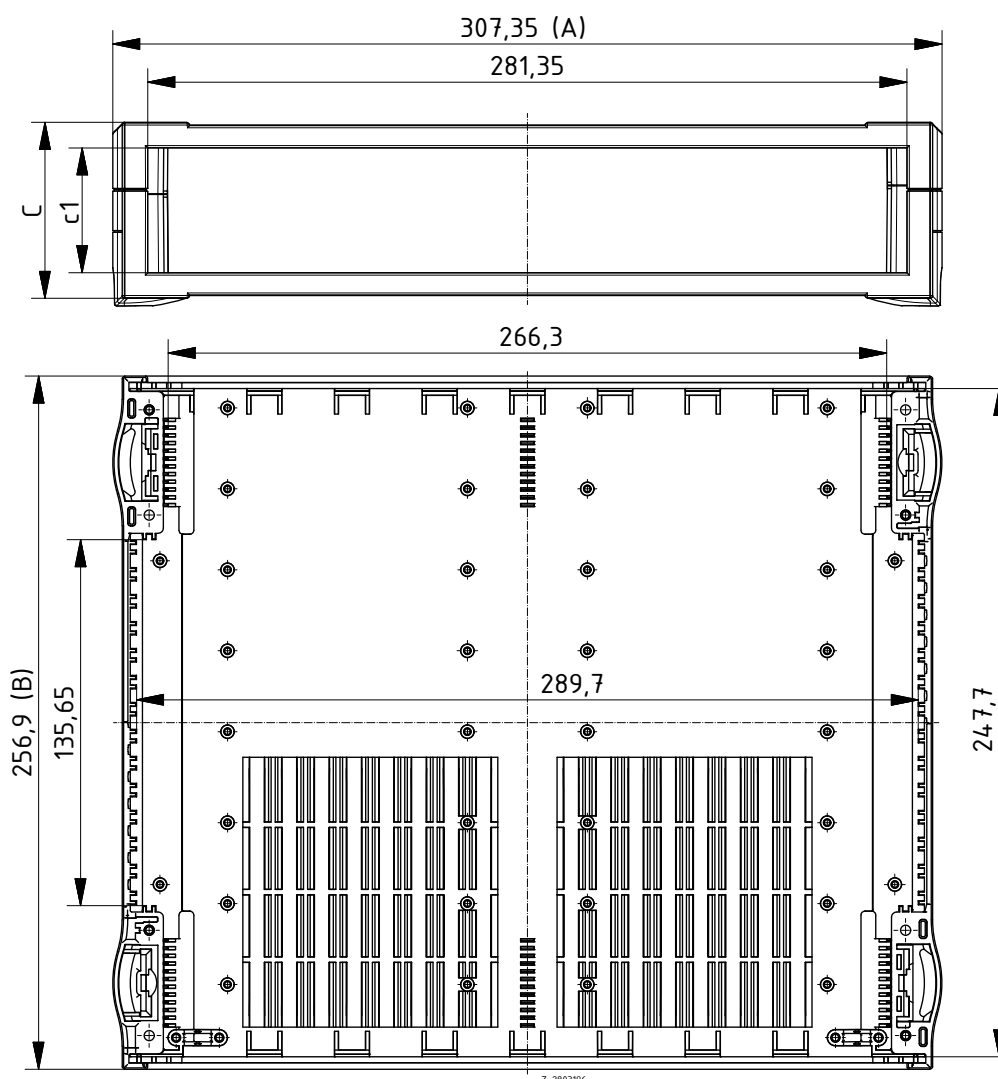


Enclosure with air vents

Model	Order no.	A	B	C	c1	Note
BO 62606 L	68626061	307,35	256,9	49,96	31,28	6 HP
BO 62609 L	68626091	307,35	256,9	65,2	46,52	9 HP
BO 62612 L	68626121	307,35	256,9	80,44	61,76	12 HP

Scope of delivery: 2 half-shells

Note: See following pages for accessories.
Caps are not included in the scope of delivery.



Accessories Botego



Cap set 1 for use as desktop enclosure

Model	Order no.	Colour
B0-KS 1-7035	68011000	Light grey
B0-KS 1-6027	68012000	Light green
B0-KS 1-7024	68013000	Graphite grey
B0-KS 1-5014	68014000	Dove blue
B0-KS 1-5002	68015000	Ultramarine
B0-KS 1-I0788	68016000	Green translucent

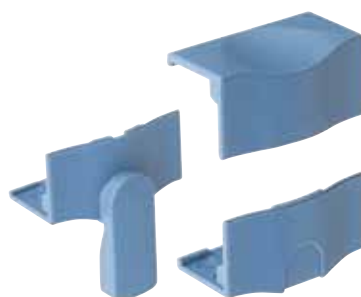
Scope of delivery: 4 upper caps, 4 lower caps, 4 rubber feet



Cap set 2 for optimal stackability

Model	Order no.	Colour
B0-KS 2-7035	68021000	Light grey
B0-KS 2-6027	68022000	Light green
B0-KS 2-7024	68023000	Graphite grey
B0-KS 2-5014	68024000	Dove blue
B0-KS 2-5002	68025000	Ultramarine
B0-KS 2-I0788	68026000	Green translucent

Scope of delivery: 8 lower caps, 4 rubber feet



Cap set 3 with collapsible tip-up foot

Model	Order no.	Colour
B0-KS 3-7035	68031000	Light grey
B0-KS 3-6027	68032000	Light green
B0-KS 3-7024	68033000	Graphite grey
B0-KS 3-5014	68034000	Dove blue
B0-KS 3-5002	68035000	Ultramarine
B0-KS 3-I0788	68036000	Green translucent

Scope of delivery: 4 upper caps, 2 lower caps, 2 foot caps with collapsible feet, 2 rubber feet



Cap set 4 for wall mounting

Model	Order no.	Colour
B0-KS 4-7035	68041000	Light grey
B0-KS 4-6027	68042000	Light green
B0-KS 4-7024	68043000	Graphite grey
B0-KS 4-5014	68044000	Dove blue
B0-KS 4-5002	68045000	Ultramarine
B0-KS 4-I0788	68046000	Green translucent

Scope of delivery: 4 upper caps, 4 wall-fixing caps, 4 rubber feet

Accessories Botego

Extension sets, 9 HP, plain and with air vents (L)

Model	Order no.	Note
BO AB 02009-7035	68200910	For BO 320..(L), for BO 520..(L)
BO AB 02009 L-7035	68200911	For BO 320..(L), for BO 520..(L)
BO AB 02609-7035	68260910	For BO 626..(L)
BO AB 02609 L-7035	68260911	For BO 626..(L)

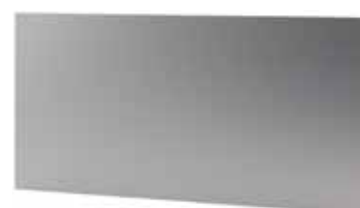
Scope of delivery: 2 extension parts

Note: L = With injection-moulded air vents

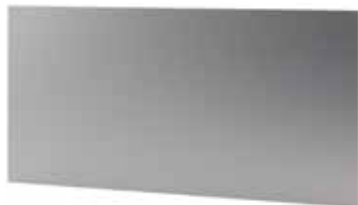


Front panels, natural-coloured anodised aluminium

Model	Order no.	Note
BO FP 30006	68711306	For BO 32006 (L)
BO FP 30009	68711309	For BO 32009 (L)
BO FP 30012	68711312	For BO 32012 (L)
BO FP 30015	68711315	For BO 32006 (L) + 1x AB 02009 (L)
BO FP 30018	68711318	For BO 32009 (L) + 1x AB 02009 (L)
BO FP 30021	68711321	For BO 32012 (L) + 1x AB 02009 (L)
BO FP 30024	68711324	For BO 32006 (L) + 2x AB 02009 (L)
BO FP 30027	68711327	For BO 32009 (L) + 2x AB 02009 (L)
BO FP 30030	68711330	For BO 32012 (L) + 2x AB 02009 (L)
BO FP 30033	68711333	For BO 32006 (L) + 3x AB 02009 (L)
BO FP 30036	68711336	For BO 32009 (L) + 3x AB 02009 (L)
BO FP 30039	68711339	For BO 32012 (L) + 3x AB 02009 (L)
BO FP 30042	68711342	For BO 32006 (L) + 4x AB 02009 (L)
BO FP 30045	68711345	For BO 32009 (L) + 4x AB 02009 (L)
BO FP 30048	68711348	For BO 32012 (L) + 4x AB 02009 (L)
BO FP 50006	68711506	For BO 51406 (L); for BO 52006 (L)
BO FP 50009	68711509	For BO 51409 (L); for BO 52009 (L)
BO FP 50012	68711512	For BO 51412 (L); for BO 52012 (L)
BO FP 50015	68711515	For BO 52006 (L) + 1x AB 02009 (L)
BO FP 50018	68711518	For BO 52009 (L) + 1x AB 02009 (L)
BO FP 50021	68711521	For BO 52012 (L) + 1x AB 02009 (L)
BO FP 50024	68711524	For BO 52006 (L) + 2x AB 02009 (L)
BO FP 50027	68711527	For BO 52009 (L) + 2x AB 02009 (L)
BO FP 50030	68711530	For BO 52012 (L) + 2x AB 02009 (L)
BO FP 50033	68711533	For BO 52006 (L) + 3x AB 02009 (L)
BO FP 50036	68711536	For BO 52009 (L) + 3x AB 02009 (L)
BO FP 50039	68711539	For BO 52012 (L) + 3x AB 02009 (L)
BO FP 50042	68711542	For BO 52006 (L) + 4x AB 02009 (L)
BO FP 50045	68711545	For BO 52009 (L) + 4x AB 02009 (L)
BO FP 50048	68711548	For BO 52012 (L) + 4x AB 02009 (L)
BO FP 60006	68711606	For BO 62606 (L)
BO FP 60009	68711609	For BO 62609 (L)
BO FP 60012	68711612	For BO 62612 (L)
BO FP 60015	68711615	For BO 62606 (L) + 1x AB 02609 (L)
BO FP 60018	68711618	For BO 62609 (L) + 1x AB 02609 (L)
BO FP 60021	68711621	For BO 62612 (L) + 1x AB 02609 (L)
BO FP 60024	68711624	For BO 62606 (L) + 2x AB 02609 (L)
BO FP 60027	68711627	For BO 62609 (L) + 2x AB 02609 (L)
BO FP 60030	68711630	For BO 62612 (L) + 2x AB 02609 (L)



Accessories Botego



Front panels, natural-coloured anodised aluminium

Model	Order no.	Note
BO FP 60033	68711633	For BO 62606 (L) + 3x AB 02609 (L)
BO FP 60036	68711636	For BO 62609 (L) + 3x AB 02609 (L)
BO FP 60039	68711639	For BO 62612 (L) + 3x AB 02609 (L)
BO FP 60042	68711642	For BO 62606 (L) + 4x AB 02609 (L)
BO FP 60045	68711645	For BO 62609 (L) + 4x AB 02609 (L)
BO FP 60048	68711648	For BO 62612 (L) + 4x AB 02609 (L)

Scope of delivery: 1 front panel

Note: Plastic front panels on request.



Angled operating front, 18 HP

Model	Order no.	Note
BO-SF-3 001800	68018003	For BO 32009 (L) + 1x BO AB 02009 (L)
BO-SF-5 001800	68018005	For BO 52009 (L) + 1x BO AB 02009 (L)
BO-SF-6 001800	68018006	For BO 62609 (L) + 1x BO AB 02609 (L)

Scope of delivery: 1 angled operating front



Handle

Model	Order no.	Note
BO HS 30000	68430000	For BO 320... (L)
BO HS 50000	68450000	For BO 514... (L); for BO 520... (L)
BO HS 60000	68460000	For BO 626... (L)

Scope of delivery: 1 handle, fixing material



Cable strain-relief set

Model	Order no.
BO-ZE	68900040

Scope of delivery: 10 strain relief brackets, 20 screws

Set of screws

Model	Order no.
BO-SHR Z KA35x10	68900030

Scope of delivery: 40 screws

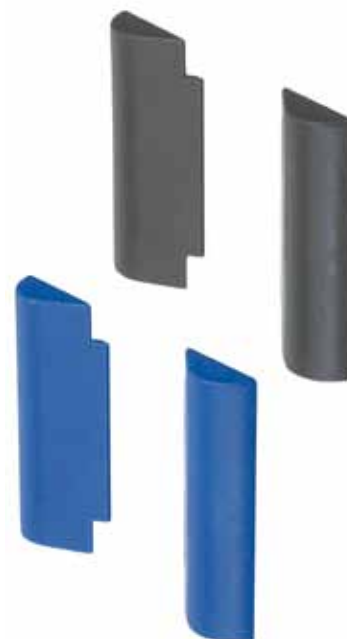
Accessories Botego

Design element set 2

Model	Order no.	Colour	Note
BO-D2-6TE-7035	68120610*	Light grey	For BO FP...06
BO-D2-6TE-6027	68120620*	Light green	For BO FP...06
BO-D2-6TE-7024	68120630*	Graphite grey	For BO FP...06
BO-D2-6TE-5014	68120640*	Dove blue	For BO FP...06
BO-D2-6TE-5002	68120650*	Ultramarine	For BO FP...06
BO-D2-6TE-10788	68120660*	Green translucent	For BO FP...06
BO-D2-9TE-7035	68120910*	Light grey	For BO FP...09
BO-D2-9TE-6027	68120920*	Light green	For BO FP...09
BO-D2-9TE-7024	68120930*	Graphite grey	For BO FP...09
BO-D2-9TE-5014	68120940*	Dove blue	For BO FP...09
BO-D2-9TE-5002	68120950*	Ultramarine	For BO FP...09
BO-D2-9TE-10788	68120960*	Green translucent	For BO FP...09
BO-D2-12TE-7035	68121210*	Light grey	For BO FP...12
BO-D2-12TE-6027	68121220*	Light green	For BO FP...12
BO-D2-12TE-7024	68121230*	Graphite grey	For BO FP...12
BO-D2-12TE-5014	68121240*	Dove blue	For BO FP...12
BO-D2-12TE-5002	68121250*	Ultramarine	For BO FP...12
BO-D2-12TE-10788	68121260*	Green translucent	For BO FP...12
BO-D2-15TE-7035	68121510*	Light grey	For BO FP...15
BO-D2-15TE-6027	68121520*	Light green	For BO FP...15
BO-D2-15TE-7024	68121530*	Graphite grey	For BO FP...15
BO-D2-15TE-5014	68121540*	Dove blue	For BO FP...15
BO-D2-15TE-5002	68121550*	Ultramarine	For BO FP...15
BO-D2-15TE-10788	68121560*	Green translucent	For BO FP...15
BO-D2-18TE-7035	68121810*	Light grey	For BO FP...18
BO-D2-18TE-6027	68121820*	Light green	For BO FP...18
BO-D2-18TE-7024	68121830*	Graphite grey	For BO FP...18
BO-D2-18TE-5014	68121840*	Dove blue	For BO FP...18
BO-D2-18TE-5002	68121850*	Ultramarine	For BO FP...18
BO-D2-18TE-10788	68121860*	Green translucent	For BO FP...18

Scope of delivery: 2 design elements, fixing material

Note: * = Available on request



Accessories Botego

Design element set 3



Model	Order no.	Colour	Note
B0-D3-6TE-7035	68130610*	Light grey	For B0 FP...06
B0-D3-6TE-6027	68130620*	Light green	For B0 FP...06
B0-D3-6TE-7024	68130630*	Graphite grey	For B0 FP...06
B0-D3-6TE-5014	68130640*	Dove blue	For B0 FP...06
B0-D3-6TE-5002	68130650*	Ultramarine	For B0 FP...06
B0-D3-6TE-10788	68130660*	Green translucent	For B0 FP...06
B0-D3-9TE-7035	68130910*	Light grey	For B0 FP...09
B0-D3-9TE-6027	68130920*	Light green	For B0 FP...09
B0-D3-9TE-7024	68130930*	Graphite grey	For B0 FP...09
B0-D3-9TE-5014	68130940*	Dove blue	For B0 FP...09
B0-D3-9TE-5002	68130950*	Ultramarine	For B0 FP...09
B0-D3-9TE-10788	68130960	Green translucent	For B0 FP...09
B0-D3-12TE-7035	68131210*	Light grey	For B0 FP...12
B0-D3-12TE-6027	68131220*	Light green	For B0 FP...12
B0-D3-12TE-7024	68131230*	Graphite grey	For B0 FP...12
B0-D3-12TE-5014	68131240*	Dove blue	For B0 FP...12
B0-D3-12TE-5002	68131250*	Ultramarine	For B0 FP...12
B0-D3-12TE-10788	68131260*	Green translucent	For B0 FP...12
B0-D3-15TE-7035	68131510	Light grey	For B0 FP...15
B0-D3-15TE-6027	68131520*	Light green	For B0 FP...15
B0-D3-15TE-7024	68131530	Graphite grey	For B0 FP...15
B0-D3-15TE-5014	68131540*	Dove blue	For B0 FP...15
B0-D3-15TE-5002	68131550*	Ultramarine	For B0 FP...15
B0-D3-15TE-10788	68131560	Green translucent	For B0 FP...15
B0-D3-18TE-7035	68131810*	Light grey	For B0 FP...18
B0-D3-18TE-6027	68131820*	Light green	For B0 FP...18
B0-D3-18TE-7024	68131830*	Graphite grey	For B0 FP...18
B0-D3-18TE-5014	68131840	Dove blue	For B0 FP...18
B0-D3-18TE-5002	68131850	Ultramarine	For B0 FP...18
B0-D3-18TE-10788	68131860	Green translucent	For B0 FP...18

Scope of delivery: 2 design elements, fixing material

Note: * = Available on request

Filling profile set for subrack



Model	Order no.	Note
B0-PB1-21	68731210	Enclosure height 24 HP
B0-PB1-42	68731420	Enclosure height 45 HP

Scope of delivery: 1 set = 2 pieces

Accessories Botego

Profile set TF

Model	Order no.	Note
BO-PT1-06	68721060	For BO...06
BO-PT1-09	68721090*	For BO...09
BO-PT1-12	68721120*	For BO...12
BO-PT1-15	68721150	For BO...06 + 1 x AB...
BO-PT1-18	68721180*	For BO...09 + 1 x AB...
BO-PT1-21	68721210*	For BO...12 + 1 x AB...
BO-PT1-24	68721240	For BO...06 + 2 x AB...
BO-PT1-27	68721270*	For BO...09 + 2 x AB...
BO-PT1-30	68721300	For BO...12 + 2 x AB...
BO-PT1-33	68721330	For BO...06 + 3 x AB...
BO-PT1-36	68721360	For BO...09 + 3 x AB...
BO-PT1-39	68721390	For BO...12 + 3 x AB...
BO-PT1-42	68721420	For BO...06 + 4 x AB...
BO-PT1-45	68721450	For BO...09 + 4 x AB...
BO-PT1-48	68721480	For BO...12 + 4 x AB...

Scope of delivery: 2 profiles, 2 tapped strips

Note: * = Available on request

By inserting profiles and tapped stripes between the half-shells/extension sets, a screw-on front panel can be fitted to the enclosure.



Part front panels, natural-coloured anodised aluminium, passivated on rear

Model	Order no.	Note
TF/M 306	86806033	3 U, 6 HP
TF/M 309	86809033	3 U, 9 HP
TF/M 312	86812033	3 U, 12 HP
TF/M 315	86815033	3 U, 15 HP
TF/M 318	86818033	3 U, 18 HP
TF/M 321	86821033	3 U, 21 HP
TF/M 324	86824033	3 U, 24 HP
TF/M 327	86827033	3 U, 27 HP
TF/M 330	86830033	3 U, 30 HP
TF/M 333	86833033	3 U, 33 HP
TF/M 336	86836033	3 U, 36 HP
TF/M 339	86839033	3 U, 39 HP
TF/M 342	86842033	3 U, 42 HP
TF/M 345	86845033	3 U, 45 HP
TF/M 348	86848033	3 U, 48 HP
TF/M 4.506	86806453	For BO 5....
TF/M 4.509	86809453	For BO 5....
TF/M 4.512	86812453	For BO 5....
TF/M 4.515	86815453	For BO 5....
TF/M 4.518	86818453	For BO 5....
TF/M 4.521	86821453	For BO 5....
TF/M 4.524	86824453	For BO 5....
TF/M 4.527	86827453	For BO 5....
TF/M 4.530	86830453	For BO 5....
TF/M 4.533	86833453	For BO 5....



Accessories Botego



Part front panels, natural-coloured anodised aluminium, passivated on rear

Model	Order no.	Note
TF/M 4.536	86836453	For B0 5....
TF/M 4.539	86839453	For B0 5....
TF/M 4.542	86842453	For B0 5....
TF/M 4.545	86845453	For B0 5....
TF/M 4.548	86848453	For B0 5....
TF/M 606	86806063	6 U, 6 HP
TF/M 609	86809063	6 U, 9 HP
TF/M 612	86812063	6 U, 12 HP
TF/M 615	86815063	6 U, 15 HP
TF/M 618	86818063	6 U, 18 HP
TF/M 621	86821063	6 U, 21 HP
TF/M 624	86824063	6 U, 24 HP
TF/M 627	86827063	6 U, 27 HP
TF/M 630	86830063	6 U, 30 HP
TF/M 633	86833063	6 U, 33 HP
TF/M 636	86836063	6 U, 36 HP
TF/M 639	86839063	6 U, 39 HP
TF/M 642	86842063	6 U, 42 HP
TF/M 645	86845063	6 U, 45 HP
TF/M 648	86848063	6 U, 48 HP

Scope of delivery: 1 front panel

Note: For screw holder and part front panel screws, see Interzoll Modul accessories

Application example

of our comprehensive range of services for Botego!

**Improvements:**

Special colours, EMC coatings

Mechanical processing:

Milling, drilling, countersinking, thread-cutting, punching

Ultrasonic welding of individual mounting points

Mounting work:

Mounting of membrane keypads and decor foils

Gluing work:

Insertion of supplied components

Wiring

**This is only a small selection
of our comprehensive range of services,
with which we manufacture individual
products of excellent quality.**

For more information, please see the introduction to the catalogue.



Ultramas

ABS desktop enclosure
for universal use, possibility
of fitting 19" components

- 5 basic sizes
- Aluminium or plastic front/rear panels
- Horizontal or vertical insertion
- Different heights by use of extension sets
- Version with or without air vents
- 19" internal assemblies on request
- Flat wall mounting possible
- Comprehensive range of accessories



Colour	Light grey, similar to RAL 7035; screw covers, brackets and feet agate grey, similar to RAL 7038; special colours on request
Protection class	Plain: IP 40/DIN EN 60529; with air vents: IP 30/DIN EN 60529
Enclosure material	ABS; for details see Technical Information

The screw covers which are part of standard delivery can be plugged into the enclosure vertically or horizontally as required. The enclosure height (or width, if used vertically) can be extended by 15.24 mm (3 HP) or 45.72 mm (9 HP) by using extension sets. The boss dimensions conform – among others – to Euro card standards. Additional grooves for the insertion of circuit boards, mounting panels, etc., are located on the inner enclosure sides. 19" internal constructions for 3 and 6 U in widths 9, 12, 18, 21, 27, 30 and 36 TE are available on request.



Ultramas UM 3...09 (L)

Enclosure, plain

Model	Order no.	A	B	C	b1
UM 32009	55320000	157,5	198,9	62,2	187,3
UM 32609	55326000	157,5	258,9	62,2	247,3

Scope of delivery: 2 half-shells, 8 covers, 4 rubber feet, 4 M3 screws

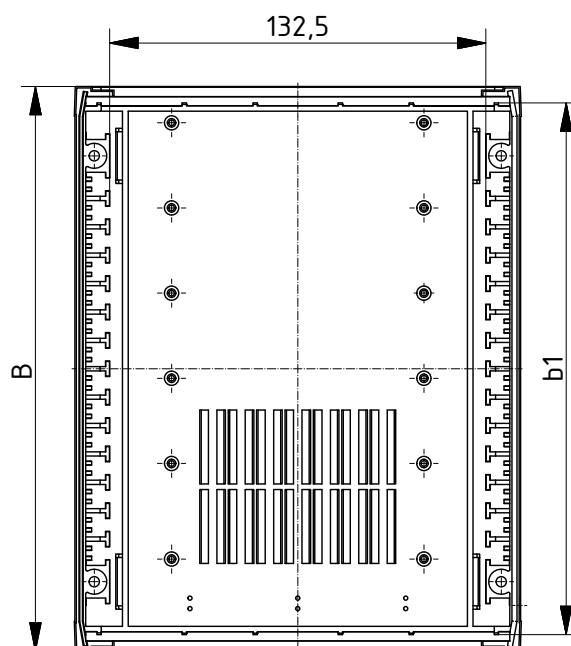
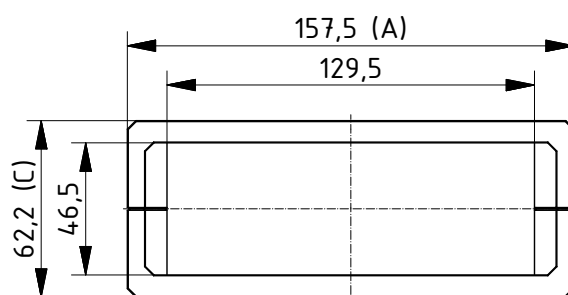
Note: See following pages for accessories.

Enclosure with air vents

Model	Order no.	A	B	C	b1
UM 32009 L	55320010	157,5	198,9	62,2	187,3
UM 32609 L	55326010	157,5	258,9	62,2	247,3

Scope of delivery: 2 half-shells, 8 covers, 4 rubber feet, 4 M3 screws

Note: See following pages for accessories.



Z-2803197

Ultramas UM 52011 (L)

Enclosure, plain

Model	Order no.	A	B	C
UM 52011	55520000	224,2	198,9	72,4

Scope of delivery: 2 half-shells, 8 covers, 4 rubber feet, 4 M3 screws

Note: See following pages for accessories.

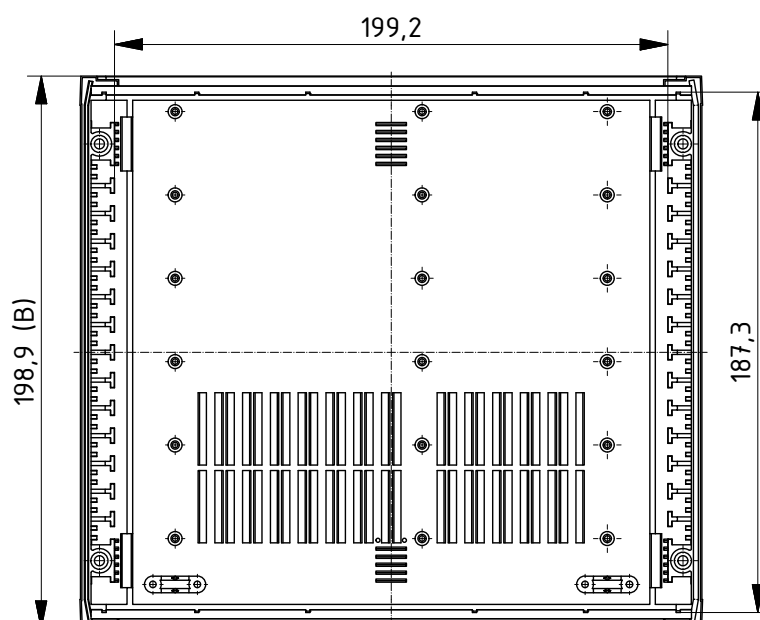
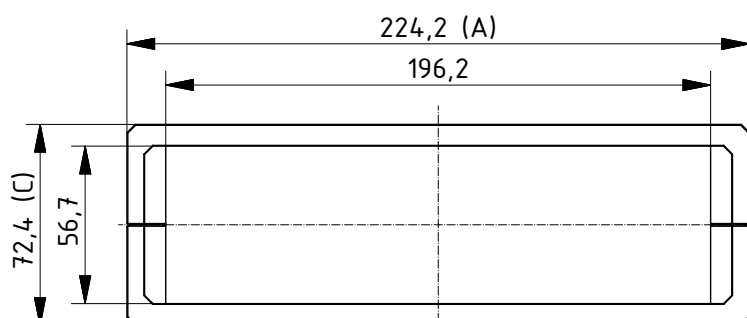


Enclosure with air vents

Model	Order no.	A	B	C
UM 52011 L	55520020	224,2	198,9	72,4

Scope of delivery: 2 half-shells, 8 covers, 4 rubber feet, 4 M3 screws

Note: See following pages for accessories.



Z-2803198

Ultramas UM 6..09 (L)



Enclosure, plain

Model	Order no.	A	B	C	b1
UM 62009	55620000	290,9	198,9	62,2	187,3
UM 62609	55626000	290,9	258,9	62,2	247,3

Scope of delivery: 2 half-shells, 8 covers, 4 rubber feet, 4 M3 screws

Note: See following pages for accessories.

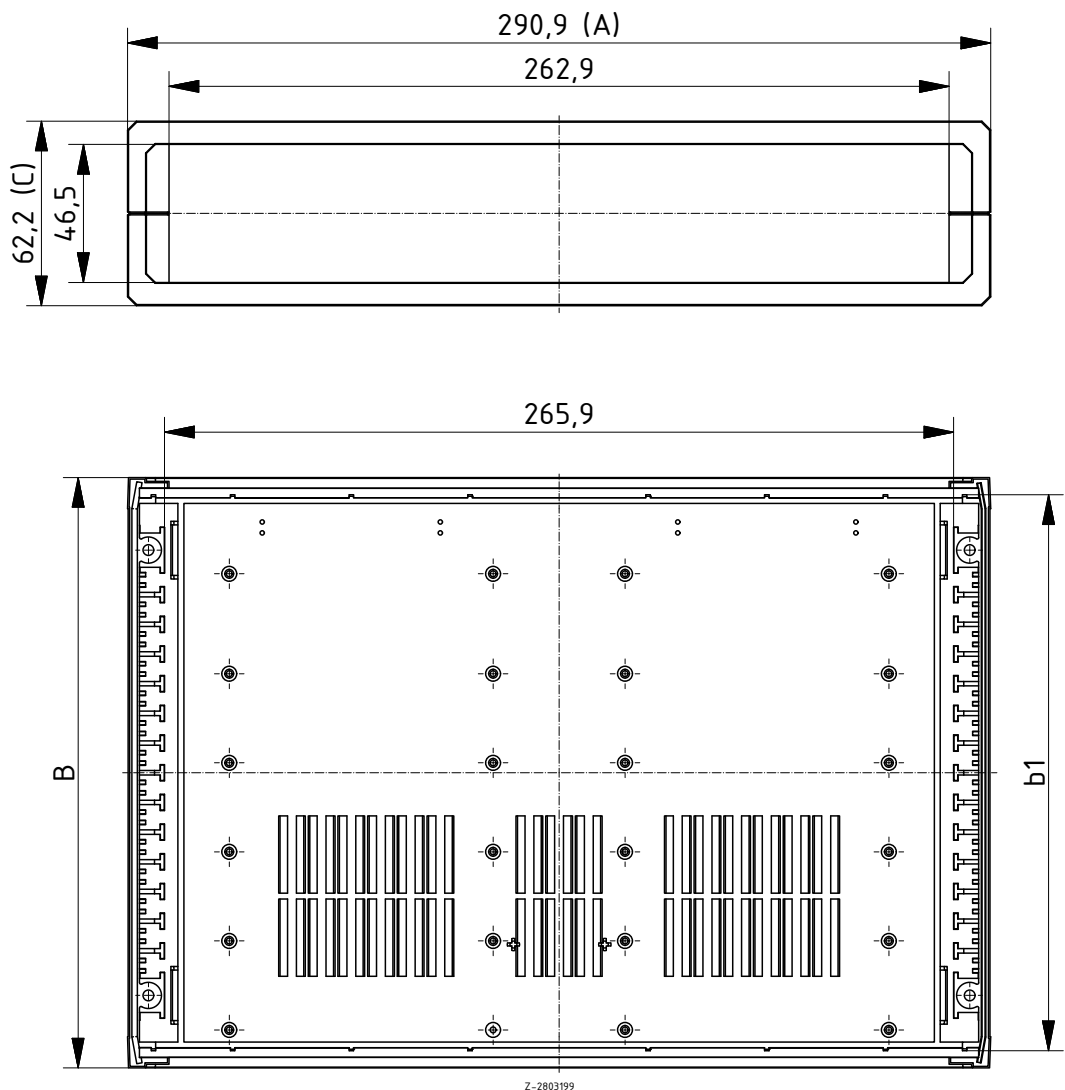


Enclosure with air vents

Model	Order no.	A	B	C	b1
UM 62009 L	55620010	290,9	198,9	62,2	187,3
UM 62609 L	55626010	290,9	258,9	62,2	247,3

Scope of delivery: 2 half-shells, 8 covers, 4 rubber feet, 4 M3 screws

Note: See following pages for accessories.



Z-2803199

Ultramas accessories

Tip-up foot set

Model	Order no.
UM-AS	56012000

Scope of delivery: 4 fixed feet.

Note: For horizontal or vertical use, as required.



Tip-up foot set, collapsible

Model	Order no.
UM-ASK	56012100

Scope of delivery: Set-up foot set (2 fixed and 2 hinged feet), fitting screws.

Note: For horizontal or vertical use, as required.



Wall brackets

Model	Order no.
UM-WLH	56002000

Scope of delivery: 4 wall brackets

Note: The wall brackets can be used to fit the enclosure flat against the wall. Fitting is by means of insertion of the intermediate piece and screwing-on of the bracket. This does not affect the enclosure screwing system.



Connection brackets

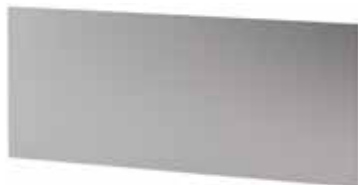
Model	Order no.
UM-VHH	56002200*

Scope of delivery: 4 connecting brackets, fitting material

Note: * = Available on request



Ultramas accessories



Front panels, natural-coloured anodised aluminium

Model	Order no.	Note
FP 30009	56030900	For UM 3..09
FP 30012	56031200	For UM 3..09 + 1x AB 02.03
FP 30018	56031800	For UM 3..09 + 1x AB 02.09 (L) and for UMP 32018 (FP)
FP 30021	56032100	For UM 3..09 + 1x AB 02.03 + 1x AB 02.09 (L)
FP 30027	56032700	For UM 3..09 + 2x AB 02.09 (L)
FP 30030	56033000	For UM 3..09 + 1x AB 02.03 + 2x AB 02.09 (L)
FP 30036	56033600	For UM 3..09 + 3x AB 02.09 (L)
FP 50011	56051100	For UM 52011
FP 50020	56052000	For UM 52011 + 1x AB 02009 (L)
FP 50029	56052900	For UM 52011 + 2x AB 02009 (L)
FP 60009	56060900	For UM 6..09
FP 60012	56061200	For UM 6..09 + 1x AB 02.03
FP 60018	56061800	For UM 6..09 + 1x AB 02.09 (L) and for UMP 62018 (FP)
FP 60021	56062100	For UM 6..09 + 1x AB 02.03 + 1x AB 02.09 (L)
FP 60027	56062700	For UM 6..09 + 2x AB 02.09 (L)
FP 60030	56063000	For UM 6..09 + 1x AB 02.03 + 2x AB 02.09 (L)
FP 60036	56063600	For UM 6..09 + 3x AB 02.09 (L)

Scope of delivery: 1 front panel



Front panels, ABS, light grey, similar to RAL 7035, embossed on one side

Model	Order no.	Note
FPK 30009	56030910	For UM 3..09
FPK 30012	56031210	For UM 3..09 + 1x AB 02.03
FPK 30018	56031810	For UM 3..09 + 1x AB 02.09 (L) and for UMP 32018 (FP)
FPK 30021	56032110	For UM 3..09 + 1x AB 02.03 + 1x AB 02.09 (L)
FPK 30027	56032710	For UM 3..09 + 2x AB 02.09 (L)
FPK 30030	56033010	For UM 3..09 + 1x AB 02.03 + 2x AB 02.09 (L)
FPK 30036	56033610	For UM 3..09 + 3x AB 02.09 (L)
FPK 50011	56051110	For UM 52011
FPK 50020	56052010	For UM 52011 + 1x AB 02009 (L)
FPK 50029	56052910	For UM 52011 + 2x AB 02009 (L)
FPK 60009	56060910	For UM 6..09
FPK 60012	56061210	For UM 6..09 + 1x AB 02.03
FPK 60018	56061810	For UM 6..09 + 1x AB 02.09 (L) and for UMP 62018 (FP)
FPK 60021	56062110	For UM 6..09 + 1x AB 02.03 + 1x AB 02.09 (L)
FPK 60027	56062710	For UM 6..09 + 2x AB 02.09 (L)
FPK 60030	56063010	For UM 6..09 + 1x AB 02.03 + 2x AB 02.09 (L)
FPK 60036	56063610	For UM 6..09 + 3x AB 02.09 (L)

Scope of delivery: 1 front panel

Ultramas accessories

Extension set, plain, with air vents (L)

Model	Order no.	Note
AB 02003	56020500	For UM 32009(L), 62009(L), 52011(L)*
AB 02009	56020000	For UM 32009(L), 52011(L), 62009(L)
AB 02009 L	56020010	For UM 32009(L), 52011(L), 62009(L)
AB 02603	56026500	For UM 32609(L), 62609(L)
AB 02609	56026000	For UM 32609(L), 62609(L)
AB 02609 L	56026010	For UM 32609(L), 62609(L)

Scope of delivery: 2 extension units, fitting material

Note: * AB 02003 can also be used for UM 52011(L), but please order 4 SHR-Z-M3x40 screws, order no. 59005541, for each extension set.

Front panel FP(K) 50014 available on request.





Aluplan

This IP 65-tight profile enclosure adapts flexibly to your requirements

- 2 heights
- Individually adjustable length and width
- 16 standard sizes for each height ex warehouse
- Aluminium baseplates and top covers
- Good EMC characteristics
- Wide range of accessories



Colour	Aluplan 50: black, similar to RAL 9005; Aluplan 100: light grey, similar to RAL 7035; special colours on request
Protection class	IP 65/DIN EN 60529
Enclosure material	Extruded profiles: Al Mg Si 0.5 powder-coated; corners: diecast zinc ZnAl 4 Cu 1, powder-coated; corner caps: PA-GF 15, corner seal TPV/TPE; sponge rubber seal (EPDM) in profile groove

The frame construction consisting of profiles and diecast corners permits the use of different constructions. The profiles are pre-fitted with sponge cord seals, and pre-formed seals provide ingress protection IP 65 for the diecast corners. The internal surfaces of the corner seals ensure that the mounting panels or PCBs can be fitted elastically into the profiles. PCB slots are fitted in the side profiles for threaded inserts, circuit boards and mounting panels. The outer surface is designed as an ergonomic handle surface. The front profile is smooth on the inner surface for fitting connectors, displays, etc. Circuit boards can be inserted

parallel to the profile in vertical grooves. The smooth outer surface is designed to hold operating and display units. As alternatives to the standard aluminium front panels, clear or red translucent plastic panels can be used, or a combination of a modified aluminium panel and membrane keypad. Separate profiles can be supplied up to a length of 4 m. Please note our special manufacturing information if you cut profiles or make your own front panels. We can supply special shielding on request to give extra-high EMC protection.



Aluplan AP 5.... enclosure profile set



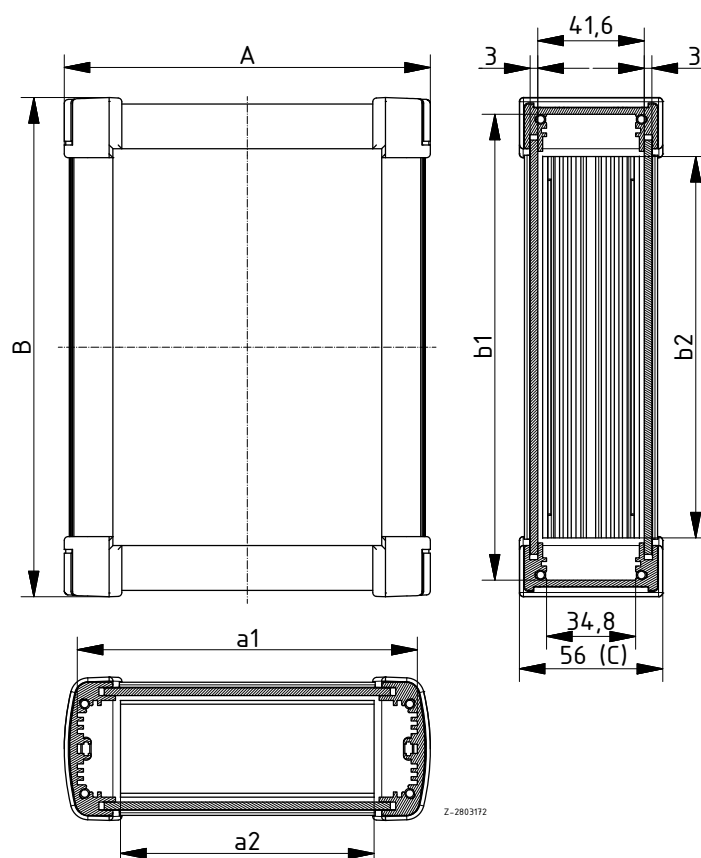
Aluplan AP 5.... enclosure profile set

Model	Order no.	A	B	C	a1	a2	b1	b2
AP 51010	64051010	143	145	56	132,8	99	132	99
AP 51015	64051015	143	195	56	132,8	99	182	149
AP 51020	64051020	143	245	56	132,8	99	232	199
AP 51025	64051025	143	295	56	132,8	99	282	249
AP 51510	64051510	193	145	56	182,8	149	132	99
AP 51515	64051515	193	195	56	182,8	149	182	149
AP 51520	64051520	193	245	56	182,8	149	232	199
AP 51525	64051525	193	295	56	182,8	149	282	249
AP 52010	64052010	243	145	56	232,8	199	132	99
AP 52015	64052015	243	193	56	232,8	199	182	149
AP 52020	64052020	243	245	56	232,8	199	232	199
AP 52025	64052025	243	295	56	232,8	199	282	249
AP 52510	64052510	293	145	56	282,8	249	132	99
AP 52515	64052515	293	195	56	282,8	249	182	149
AP 52520	64052520	293	245	56	282,8	249	232	199
AP 52525	64052525	293	295	56	282,8	249	282	249

Scope of delivery: 2 front profiles including seal, 2 side profiles including seal, 4 diecast corners, 4 corner seals, 4 covers, 16 screws, 4 rubber feet. Please order front panels separately.

Accessories: See following pages

The smooth outer surface of the front profiles can be used to fit membranes or membrane keypads.



Z-2803172

Aluplan AP 10... enclosure profile set

Aluplan AP 10... enclosure profile set

Model	Order no.	A	B	C	a1	a2	b1	b2
AP 102020	64312020	278	278	100	268	199	266,4	199
AP 102030	64312030	278	378	100	268	199	366,4	299
AP 102040	64312040	278	478	100	268	199	466,4	399
AP 102050	64312050	278	578	100	268	199	566,4	499
AP 103020	64313020	378	278	100	368	299	266,4	199
AP 103030	64313030	378	378	100	368	299	366,4	299
AP 103040	64313040	378	478	100	368	299	466,4	399
AP 103050	64313050	378	578	100	368	299	566,4	499
AP 104020	64314020	478	278	100	468	399	266,4	199
AP 104030	64314030	478	378	100	468	399	366,4	299
AP 104040	64314040	478	478	100	468	399	466,4	399
AP 104050	64314050	478	578	100	468	399	566,4	499
AP 105020	64315020	578	278	100	568	499	266,4	199
AP 105030	64315030	578	378	100	568	499	366,4	299
AP 105040	64315040	578	478	100	568	499	466,4	399
AP 105050	64315050	578	578	100	568	499	566,4	499

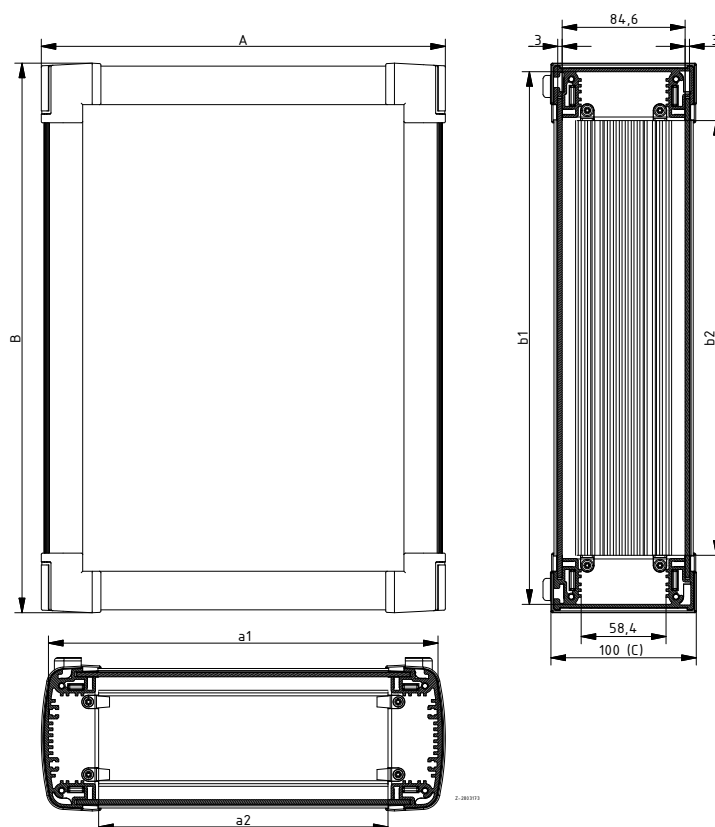
Scope of delivery: 2 front profiles including seal, 2 side profiles including seal, 4 diecast corners, 4 corner seals, 4 covers, 16 screws, 4 rubber feet. Please order front panels separately.

Accessories: See following pages

The smooth outer surface of the front profiles can be used to fit membranes or membrane keypads.

The corner piece provides mounting space for various connectors behind the removable covers (IP 40).

Concealed blind holes are provided in the corner pieces so that the enclosure can be screwed to the wall.



Aluplan AP 5 accessories



Handle for AP 5...

Model	Order no.	Note
AP 10 HS	64110010	For side / front profile length 100 mm
AP 15 HS	64110015	For side / front profile length 150 mm
AP 20 HS	64110020	For side / front profile length 200 mm
AP 25 HS	64110025	For side / front profile length 250 mm

Scope of delivery: Handle side parts, profile, seals, screws

Note: Processing of the profiles on request



Wall brackets for AP 5...

Model	Order no.	Note
AP 50000 WL	64115000	For wall mounting parallel to the front panel
AP 50000 WLS	64115010	For wall mounting on side profile
AP 50000 WLF	64115020	For wall mounting to the front profile

Scope of delivery: WL: 4 wall brackets, 4 covers; WLS / WLF: 2 wall brackets, screws

Note: Direct mounting on the AP 5... is possible; optional fitting of the AP 5000 WL wall bracket by means of a screw, Order no. 59006249 (scope of delivery: 1 piece)

AP 50000 WL



AP 50000 WLS



Tip-up foot set for AP 50...

Model	Order no.
AB 1230	39603000

Scope of delivery: Set-up foot set (2 fixed and 2 hinged feet), fitting screws.

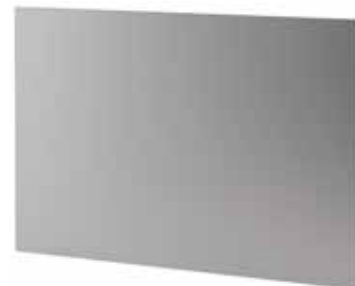
Note: Processing of the front panels on request

Aluplan AP 5 accessories

Front panels for AP 5..., natural-coloured anodised aluminium

Model	Order no.	Note
AP 01010 FA3	64101010	For AP 51010
AP 01015 FA3	64101015	For AP 51015
AP 01020 FA3	64101020	For AP 51020
AP 01025 FA3	64101025	For AP 51025
AP 01510 FA3	64101510	For AP 51510
AP 01515 FA3	64101515	For AP 51515
AP 01520 FA3	64101520	For AP 51520
AP 01525 FA3	64101525	For AP 51525
AP 02010 FA3	64102010	For AP 52010
AP 02015 FA3	64102015	For AP 52015
AP 02020 FA3	64102020	For AP 52020
AP 02025 FA3	64102025	For AP 52025
AP 02510 FA3	64102510	For AP 52510
AP 02515 FA3	64102515	For AP 52515
AP 02520 FA3	64102520	For AP 52520
AP 02525 FA3	64102525	For AP 52525

Scope of delivery: 1 front panel



Aluplan AP 10 accessories



Wall profile for AP 10...

Model	Order no.	Note
APW 20	64350020	For enclosures with front / side profile length 200-300 mm
APW 30	64350030	For enclosures with front / side profile length 300-400 mm
APW 40	64350040	For enclosures with front / side profile length 400-500 mm
APW 50	64350050	For enclosures with front / side profile length 500-600 mm

Scope of delivery: 1 wall profile

Note: Direct suspension possible by means of the front and side profile



Plug-in front panel for AP 10..., natural-coloured anodised aluminium, IP 65

Model	Order no.	Note
AP 102020 FA3	64322020	For AP 102020
AP 102030 FA3	64322030	For AP 102030
AP 102040 FA3	64322040	For AP 102040
AP 102050 FA3	64322050	For AP 102050
AP 103020 FA3	64323020	For AP 103020
AP 103030 FA3	64323030	For AP 103030
AP 103040 FA3	64323040	For AP 103040
AP 103050 FA3	64323050	For AP 103050
AP 104020 FA3	64324020	For AP 104020
AP 104030 FA3	64324030	For AP 104030
AP 104040 FA3	64324040	For AP 104040
AP 104050 FA3	64324050	For AP 104050
AP 105020 FA3	64325020	For AP 105020
AP 105030 FA3	64325030	For AP 105030
AP 105040 FA3	64325040	For AP 105040
AP 105050 FA3	64325050	For AP 105050

Scope of delivery: 1 front panel



Screw-on front panel for AP 10..., natural-coloured anodised aluminium, IP 40

Model	Order no.	Note
AP 102020 FAS3	64332020	For AP 102020
AP 102030 FAS3	64332030	For AP 102030
AP 102040 FAS3	64332040	For AP 102040
AP 102050 FAS3	64332050	For AP 102050
AP 103020 FAS3	64333020	For AP 103020
AP 103030 FAS3	64333030	For AP 103030
AP 103040 FAS3	64333040	For AP 103040
AP 103050 FAS3	64333050	For AP 103050
AP 104020 FAS3	64334020	For AP 104020
AP 104030 FAS3	64334030	For AP 104030
AP 104040 FAS3	64334040	For AP 104040
AP 104050 FAS3	64334050	For AP 104050
AP 105020 FAS3	64335020	For AP 105020
AP 105030 FAS3	64335030	For AP 105030
AP 105040 FAS3	64335040	For AP 105040
AP 105050 FAS3	64335050	For AP 105050

Scope of delivery: 1 front panel

Aluplan AP 10 accessories

Screw-on front panel for AP 10..., natural-coloured anodised aluminium, IP 65

Model	Order no.	Note
AP 102020 FAS3-IP	64342020	For AP 102020
AP 102030 FAS3-IP	64342030	For AP 102030
AP 102040 FAS3-IP	64342040	For AP 102040
AP 102050 FAS3-IP	64342050	For AP 102050
AP 103020 FAS3-IP	64343020	For AP 103020
AP 103030 FAS3-IP	64343030	For AP 103030
AP 103040 FAS3-IP	64343040	For AP 103040
AP 103050 FAS3-IP	64343050	For AP 103050
AP 104020 FAS3-IP	64344020	For AP 104020
AP 104030 FAS3-IP	64344030	For AP 104030
AP 104040 FAS3-IP	64344040	For AP 104040
AP 104050 FAS3-IP	64344050	For AP 104050
AP 105020 FAS3-IP	64345020	For AP 105020
AP 105030 FAS3-IP	64345030	For AP 105030
AP 105040 FAS3-IP	64345040	For AP 105040
AP 105050 FAS3-IP	64345050	For AP 105050

Scope of delivery: 1 front panel incl. fitted flat seal



Handle for AP 10...

Model	Order no.	Note
AP 10-20 HS	64360220	For enclosures with front / side profile length 200 mm
AP 10-30 HS	64360230	For enclosures with front / side profile length 300 mm
AP 10-40 HS	64360240	For enclosures with front / side profile length 400 mm
AP 10-50 HS	64360250	For enclosures with front / side profile length 500 mm

Scope of delivery: 1 handle, fixing material

Note: Processing of the profiles on request



Unit foot for AP 10...

Model	Order no.
AP 10 GF	64360060

Scope of delivery: 4 unit feet

Note: The unit foot can be fitted directly into the existing wall fitting drill holes



Aluplan AP 10 accessories



Hinge set for AP 10...

Model	Order no.	Note
AP 10 SC1	64360110	Assembly on front on front profile
AP 10 SC2	64360120	Assembly on rear on front profile
AP 10 SC3	64360130	Assembly on front on side profile
AP 10 SC4	64360140	Assembly on rear on side profile

Scope of delivery: 2 hinges, including fixing material

Note: Ingress protection IP 65 can only be achieved by screwing on front panel AP 10... FAS3-IP.
Processing of the enclosure/front panel on request



Lock set for AP 10...

Model	Order no.
AP 10 SHLO	64360050

Scope of delivery: Lock, 2 keys

Note: Processing of the profiles on request

Assembly kit and seal set for AP 10...

Model	Order no.	Note
AP BFS 1	64360010	Assembly kit for front panel AP 10... FAS (-IP)
AP BFS 2	64360020	Slide nuts M5 suitable for T-groove on front profile for screwing on various elements
AP BFS 3	64360030	Screws and dowels for fitting the enclosure or wall profile to the wall
AP FAS-IP	64360040	Sealing tape for special or customer's own front panel for subsequent upgrading to IP 65

Scope of delivery:

AP BFS 1: 20 M4x10 raised countersunk head screws

AP BFS 2: 20 M5 slide nuts

AP BFS 3: 20 wood screws 5x50 and 20 dowels Ø 8x40

AP FAS-IP: 10 m sealing tape, self-adhesive on one side only

Application example

of our comprehensive range of services for Aluplan



Mechanical processing:

Cutting / sawing of variable-length profile cuts

Milling, drilling, countersinking, thread-cutting, punching

Mounting work:

Mounting of threaded bushings, bolts and conductive seals

Mounting of membrane keypads

Insertion of supplied components

Wiring

Soldering and assembly work

**This is only a small selection
of our comprehensive range of services,
with which we manufacture individual
products of excellent quality.**

For more information, please see the introduction to the catalogue.



Alustyle

Constructive refinement,
functional accessories
and elegant design are
certain to impress you

- 3 profile variants
- 4 profile cross-sections
- Standard lengths ex warehouse
- Special lengths available at short notice
- Functional diecast zinc end covers
- Ingress protection up to IP 67
- Good EMC shielding
- EMC seal optional
- Powder-coating, depending on type, similar to RAL 7024 or 9006
- Design seals in 5 colours
- Special colours on request
- Wide range of accessories



Colour	Graphite grey, similar to RAL 7024 or silver, similar to RAL 9006; dark grey seal; special colours on request
Protection class	ASP: up to IP 66 / IP 67/DIN EN 60529 when used with ASD; ASPH: IP 65/DIN EN 60529; ASPU: IP 40/DIN EN 60529
Enclosure material	Extruded profiles: Al Mg Si 0.5 powder-coated; diecast lid: zinc alloy Z410, powder-coated; seal: TPE; for details see Technical Information

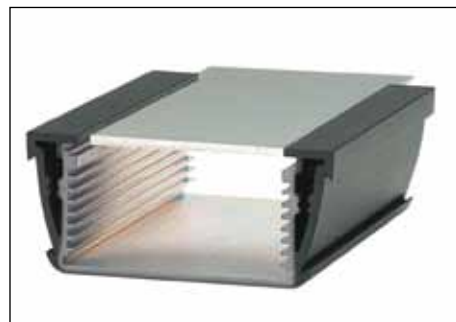




ASP – Closed profile with system grooves on the long sides and encapsulated screw channel outside the seal section



ASPH – Divided profile variant for easier mounting of electronic and other components



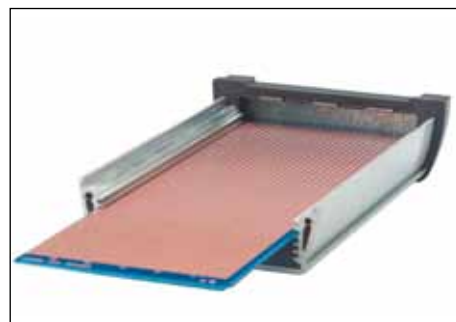
ASPU – Profile for easy insertion of front panels or operating and display units



Profile upper side for the mounting of membrane keypads up to 2 mm



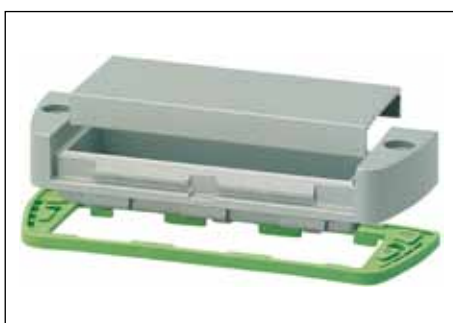
Smooth upper side; ideal for printing, laser engraving etc.



On all levels, all PCBs have the same external dimensions and can be positioned up to the inner lid area.



ASD – The end cover is equipped with a 2 mm recessed area for fitting membrane keypads. All lids are fitted with contact areas which contact the lid to the profile. This guarantees good EMC protection even for the standard enclosure. Black metal-filled EMC seals are available for increased EMC resistance.



ASM...AL – The mounting lid has a recessed mounting area for fitting various connectors and sockets. An aluminium cap with seal is snapped-on to achieve IP 65 protection of the assembly section.



ASM...SAL – The mounting lid is also available with a hinged aluminium flap.



AS...DI – A dark grey seal is included with all lids as standard. We also supply coloured seals and an EMC seal.



AS...DI-S – The impact protection seal was developed for use in rough environments. It encloses the ASD lid and protects it against damage.



AS... DS – The decor strip is used to give the enclosure an individual design. It is available in various colours and fits into the side system groove. The material used ensures that it is very easy to hold the profile firmly in mobile use. The decor strip is also used as a screw covering strip for wall fitting. Membrane material customer-specific marking strips can be fitted as an alternative to AS... DS.



AS...WB – The wall fitting is supplied as standard with the grey side covers. The screw holes can be covered by decor strips.



AS...T – The tower foot is used to stand the enclosure on its edge. A decor strip which fills the groove gap must be used with the 25 mm wide feet.



AS...A – The tip-up foot has been designed to permit the enclosure to be tipped up from the side. A decor strip which fills the groove gap must be used with the 25 mm wide feet.



Battery compartment solutions (9V block, 3x/4x mignon) for all ASM lids on request.

Alustyle 830 enclosure profiles



Enclosure profiles, closed

Model	Order no.	A	B	C	Colour
ASP 830-0100	94112100	74	32,8	100	Graphite grey
ASP 830-0100	94111100	74	32,8	100	Silver
ASP 830-0150	94112150	74	32,8	150	Graphite grey
ASP 830-0150	94111150	74	32,8	150	Silver
ASP 830-0200	94112200	74	32,8	200	Graphite grey
ASP 830-0200	94111200	74	32,8	200	Silver
ASP 830-1000	94112000	74	32,8	1000	Graphite grey
ASP 830-1000	94111000	74	32,8	1000	Silver

Scope of delivery: Enclosure profile

Note: C = profile length, special lengths on request.

Accessories: See following pages.



Enclosure profiles, horizontally-divided

Model	Order no.	A	B	C	Colour
ASPH 830-0100	94212100	74	32,8	100	Graphite grey
ASPH 830-0100	94211100	74	32,8	100	Silver
ASPH 830-0150	94212150	74	32,8	150	Graphite grey
ASPH 830-0150	94211150	74	32,8	150	Silver
ASPH 830-0200	94212200	74	32,8	200	Graphite grey
ASPH 830-0200	94211200	74	32,8	200	Silver
ASPH 830-1000	94212000	74	32,8	1000	Graphite grey
ASPH 830-1000	94211000	74	32,8	1000	Silver

Scope of delivery: Enclosure profile, two parts including profile seal

Note: C = profile length, special lengths on request.

Accessories: See following pages.



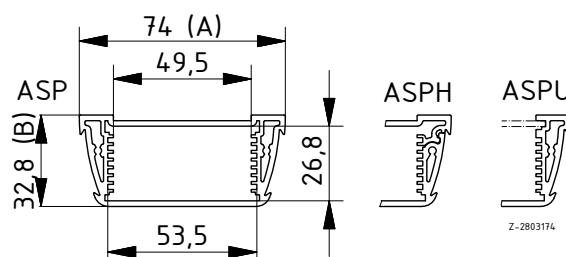
Enclosure profiles, open on one side

Model	Order no.	A	B	C	Colour
ASPU 830-0100	94312100	74	32,8	100	Graphite grey
ASPU 830-0100	94311100	74	32,8	100	Silver
ASPU 830-0150	94312150	74	32,8	150	Graphite grey
ASPU 830-0150	94311150	74	32,8	150	Silver
ASPU 830-0200	94312200	74	32,8	200	Graphite grey
ASPU 830-0200	94311200	74	32,8	200	Silver
ASPU 830-1000	94312000	74	32,8	1000	Graphite grey
ASPU 830-1000	94311000	74	32,8	1000	Silver

Scope of delivery: Enclosure profile

Note: C = profile length, special lengths on request.

Accessories: See following pages.



Alustyle 1030 enclosure profiles

Enclosure profiles, closed

Model	Order no.	A	B	C	Colour
ASP 1030-0100	94122100	98,5	32,8	100	Graphite grey
ASP 1030-0100	94121100	98,5	32,8	100	Silver
ASP 1030-0150	94122150	98,5	32,8	150	Graphite grey
ASP 1030-0150	94121150	98,5	32,8	150	Silver
ASP 1030-0200	94122200	98,5	32,8	200	Graphite grey
ASP 1030-0200	94121200	98,5	32,8	200	Silver
ASP 1030-1000	94122000	98,5	32,8	1000	Graphite grey
ASP 1030-1000	94121000	98,5	32,8	1000	Silver

Scope of delivery: Enclosure profile

Note: C = profile length, special lengths on request.

Accessories: See following pages.



Enclosure profiles, horizontally-divided

Model	Order no.	A	B	C	Colour
ASPH 1030-0100	94222100	98,5	32,8	100	Graphite grey
ASPH 1030-0100	94221100	98,5	32,8	100	Silver
ASPH 1030-0150	94222150	98,5	32,8	150	Graphite grey
ASPH 1030-0150	94221150	98,5	32,8	150	Silver
ASPH 1030-0200	94222200	98,5	32,8	200	Graphite grey
ASPH 1030-0200	94221200	98,5	32,8	200	Silver
ASPH 1030-1000	94222000	98,5	32,8	1000	Graphite grey
ASPH 1030-1000	94221000	98,5	32,8	1000	Silver

Scope of delivery: Enclosure profile, two parts including profile seal

Note: C = profile length, special lengths on request.

Accessories: See following pages.



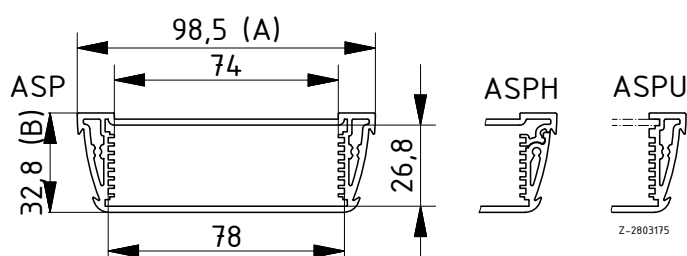
Enclosure profiles, open on one side

Model	Order no.	A	B	C	Colour
ASPU 1030-0100	94322100	98,5	32,8	100	Graphite grey
ASPU 1030-0100	94321100	98,5	32,8	100	Silver
ASPU 1030-0150	94322150	98,5	32,8	150	Graphite grey
ASPU 1030-0150	94321150	98,5	32,8	150	Silver
ASPU 1030-0200	94322200	98,5	32,8	200	Graphite grey
ASPU 1030-0200	94321200	98,5	32,8	200	Silver
ASPU 1030-1000	94322000	98,5	32,8	1000	Graphite grey
ASPU 1030-1000	94321000	98,5	32,8	1000	Silver

Scope of delivery: Enclosure profile

Note: C = profile length, special lengths on request.

Accessories: See following pages.



Alustyle 1230 enclosure profiles



Enclosure profiles, closed

Model	Order no.	A	B	C	Colour
ASP 1230-0100	94132100	121	32,8	100	Graphite grey
ASP 1230-0100	94131100	121	32,8	100	Silver
ASP 1230-0150	94132150	121	32,8	150	Graphite grey
ASP 1230-0150	94131150	121	32,8	150	Silver
ASP 1230-0200	94132200	121	32,8	200	Graphite grey
ASP 1230-0200	94131200	121	32,8	200	Silver
ASP 1230-1000	94132000	121	32,8	1000	Graphite grey
ASP 1230-1000	94131000	121	32,8	1000	Silver

Scope of delivery: Enclosure profile

Note: C = profile length, special lengths on request.

Accessories: See following pages.



Enclosure profiles, horizontally-divided

Model	Order no.	A	B	C	Colour
ASPH 1230-0100	94232100	121	32,8	100	Graphite grey
ASPH 1230-0100	94231100	121	32,8	100	Silver
ASPH 1230-0150	94232150	121	32,8	150	Graphite grey
ASPH 1230-0150	94231150	121	32,8	150	Silver
ASPH 1230-0200	94232200	121	32,8	200	Graphite grey
ASPH 1230-0200	94231200	121	32,8	200	Silver
ASPH 1230-1000	94232000	121	32,8	1000	Graphite grey
ASPH 1230-1000	94231000	121	32,8	1000	Silver

Scope of delivery: Enclosure profile, two parts including profile seal

Note: C = profile length, special lengths on request.

Accessories: See following pages.



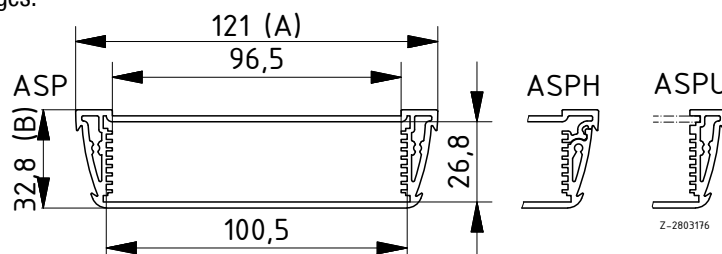
Enclosure profiles, open on one side

Model	Order no.	A	B	C	Colour
ASPU 1230-0100	94332100	121	32,8	100	Graphite grey
ASPU 1230-0100	94331100	121	32,8	100	Silver
ASPU 1230-0150	94332150	121	32,8	150	Graphite grey
ASPU 1230-0150	94331150	121	32,8	150	Silver
ASPU 1230-0200	94332200	121	32,8	200	Graphite grey
ASPU 1230-0200	94331200	121	32,8	200	Silver
ASPU 1230-1000	94332000	121	32,8	1000	Graphite grey
ASPU 1230-1000	94331000	121	32,8	1000	Silver

Scope of delivery: Enclosure profile

Note: C = profile length, special lengths on request.

Accessories: See following pages.



Alustyle 1850 enclosure profiles

Enclosure profiles, closed

Model	Order no.	A	B	C	Colour
ASP 1850-0100	94142100	187	54,6	100	Graphite grey
ASP 1850-0100	94141100	187	54,6	100	Silver
ASP 1850-0150	94142150	187	54,6	150	Graphite grey
ASP 1850-0150	94141150	187	54,6	150	Silver
ASP 1850-0200	94142200	187	54,6	200	Graphite grey
ASP 1850-0200	94141200	187	54,6	200	Silver
ASP 1850-1000	94142000	187	54,6	1000	Graphite grey
ASP 1850-1000	94141000	187	54,6	1000	Silver

Scope of delivery: Enclosure profile

Note: C = profile length, special lengths on request.

Accessories: See following pages.



Enclosure profiles, horizontally-divided

Model	Order no.	A	B	C	Colour
ASPH 1850-0100	94242100	187	54,6	100	Graphite grey
ASPH 1850-0100	94241100	187	54,6	100	Silver
ASPH 1850-0150	94242150	187	54,6	150	Graphite grey
ASPH 1850-0150	94241150	187	54,6	150	Silver
ASPH 1850-0200	94242200	187	54,6	200	Graphite grey
ASPH 1850-0200	94241200	187	54,6	200	Silver
ASPH 1850-0100	94242000	187	54,6	1000	Graphite grey
ASPH 1850-1000	94241000	187	54,6	1000	Silver

Scope of delivery: Enclosure profile, two parts including profile seal

Note: C = profile length, special lengths on request.

Accessories: See following pages.



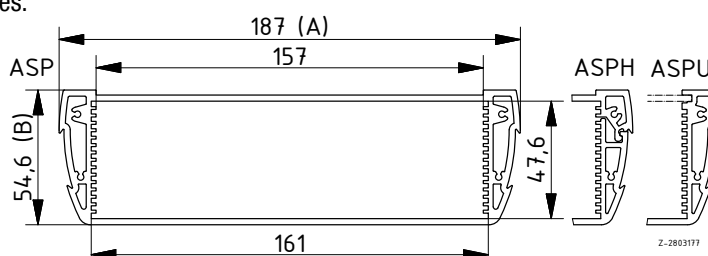
Enclosure profiles, open on one side

Model	Order no.	A	B	C	Colour
ASPU 1850-0100	94342100	187	54,6	100	Graphite grey
ASPU 1850-0100	94341100	187	54,6	100	Silver
ASPU 1850-0150	94342150	187	54,6	150	Graphite grey
ASPU 1850-0150	94341150	187	54,6	150	Silver
ASPU 1850-0200	94342200	187	54,6	200	Graphite grey
ASPU 1850-0200	94341200	187	54,6	200	Silver
ASPU 1850-1000	94342000	187	54,6	1000	Graphite grey
ASPU 1850-1000	94341000	187	54,6	1000	Silver

Scope of delivery: Enclosure profile

Note: C = profile length, special lengths on request.

Accessories: See following pages.



Alustyle accessories



End cover

Model	Order no.	Colour	Note
ASD 830-7024	94412100	Graphite grey	For ASP... 830
ASD 830-9006	94411100	Silver	For ASP... 830
ASD 1030-7024	94422100	Graphite grey	For ASP... 1030
ASD 1030-9006	94421100	Silver	For ASP... 1030
ASD 1230-7024	94432100	Graphite grey	For ASP... 1230
ASD 1230-9006	94431100	Silver	For ASP... 1230
ASD 1850-7024	94442100	Graphite grey	For ASP... 1850
ASD 1850-9006	94441100	Silver	For ASP... 1850

Scope of delivery: Lid including dark grey seal, screws, graphite grey screw covers



Mounting lid with removable aluminium cap

Model	Order no.	Colour	Note
ASM 830 AL-7024	94412400	Graphite grey	For ASP... 830
ASM 830 AL-9006	94411400	Silver	For ASP... 830
ASM 1030 AL-7024	94422400	Graphite grey	For ASP... 1030
ASM 1030 AL-9006	94421400	Silver	For ASP... 1030
ASM 1230 AL-7024	94432400	Graphite grey	For ASP... 1230
ASM 1230 AL-9006	94431400	Silver	For ASP... 1230

Scope of delivery: Lid including dark grey seal, screws, aluminium cap, cap seal, screws, graphite grey screw covers



Mounting lid with hinged aluminium flap; hinged side = membrane side

Model	Order no.	Colour	Note
ASM 830 SAL1-7024	94412200	Graphite grey	For ASP... 830
ASM 830 SAL1-9006	94411200	Silver	For ASP... 830
ASM 1030 SAL1-7024	94422200	Graphite grey	For ASP... 1030
ASM 1030 SAL1-9006	94421200	Silver	For ASP... 1030
ASM 1230 SAL1-7024	94432200	Graphite grey	For ASP... 1230
ASM 1230 SAL1-9006	94431200	Silver	For ASP... 1230

Scope of delivery: Lid including dark grey seal and aluminium flap, flap seal, screws, graphite grey screw covers



Mounting lid with hinged aluminium flap; hinged side = smooth side

Model	Order no.	Colour	Note
ASM 830 SAL2-7024	94412300	Graphite grey	For ASP... 830
ASM 830 SAL2-9006	94411300	Silver	For ASP... 830
ASM 1030 SAL2-7024	94422300	Graphite grey	For ASP... 1030
ASM 1030 SAL2-9006	94421300	Silver	For ASP... 1030
ASM 1230 SAL2-7024	94432300	Graphite grey	For ASP... 1230
ASM 1230 SAL2-9006	94431300	Silver	For ASP... 1230

Scope of delivery: Lid including dark grey seal and aluminium flap, flap seal, screws, graphite grey screw covers

Alustyle accessories

Seals, green

Model	Order no.	Note
AS 830 DI	94513000	For ASD/ASM 830...
AS 1030 DI	94523000	For ASD/ASM 1030...
AS 1230 DI	94533000	For ASD/ASM 1230...
AS 1850 DI	94543000	For ASD/ASM 1850...

Scope of delivery: 10 seals



Seals, red

Model	Order no.	Note
AS 830 DI	94515000	For ASD/ASM 830...
AS 1030 DI	94525000	For ASD/ASM 1030...
AS 1230 DI	94535000	For ASD/ASM 1230...
AS 1850 DI	94545000	For ASD/ASM 1850...

Scope of delivery: 10 seals



Seals, blue

Model	Order no.	Note
AS 830 DI	94514000	For ASD/ASM 830...
AS 1030 DI	94524000	For ASD/ASM 1030...
AS 1230 DI	94534000	For ASD/ASM 1230...
AS 1850 DI	94544000	For ASD/ASM 1850...

Scope of delivery: 10 seals



Seals, orange

Model	Order no.	Note
AS 830 DI	94516000	For ASD/ASM 830...
AS 1030 DI	94526000	For ASD/ASM 1030...
AS 1230 DI	94536000	For ASD/ASM 1230...
AS 1850 DI	94546000	For ASD/ASM 1850...

Scope of delivery: 10 seals



EMC seal, black

Model	Order no.	Note
AS 830 DI-EMV	94518100	For ASD/ASM 830...
AS 1030 DI-EMV	94528100	For ASD/ASM 1030...
AS 1230 DI-EMV	94538100	For ASD/ASM 1230...
AS 1850 DI-EMV	94548100	For ASD/ASM 1850...

Scope of delivery: 10 seals



Alustyle accessories



Impact protection seals, green

Model	Order no.	Note
AS 830 DI-S	94513200	For ASD 830-...
AS 1030 DI-S	94523200	For ASD 1030-...
AS 1230 DI-S	94533200	For ASD 1230-...

Scope of delivery: 1 impact protection seal, graphite grey screw covers



Impact protection seals, red

Model	Order no.	Note
AS 830 DI-S	94515200	For ASD 830-...
AS 1030 DI-S	94525200	For ASD 1030-...
AS 1230 DI-S	94535200	For ASD 1230-...

Scope of delivery: 1 impact protection seal, graphite grey screw covers



Impact protection seals, blue

Model	Order no.	Note
AS 830 DI-S	94514200	For ASD 830-...
AS 1030 DI-S	94524200	For ASD 1030-...
AS 1230 DI-S	94534200	For ASD 1230-...

Scope of delivery: 1 impact protection seal, graphite grey screw covers



Impact protection seals, orange

Model	Order no.	Note
AS 830 DI-S	94516200	For ASD 830-...
AS 1030 DI-S	94526200	For ASD 1030-...
AS 1230 DI-S	94536200	For ASD 1230-...

Scope of delivery: 1 impact protection seal, graphite grey screw covers



Impact protection seals, dark grey

Model	Order no.	Note
AS 830 DI-S	94517200	For ASD 830-...
AS 1030 DI-S	94527200	For ASD 1030-...
AS 1230 DI-S	94537200	For ASD 1230-...

Scope of delivery: 1 impact protection seal, graphite grey screw covers

Alustyle accessories

Decor strips

Model	Order no.	Colour	Note
AS 20-0050 DS	94605050	Red	Length 48.4 mm
AS 20-0050 DS	94603050	Green	Length 48.4 mm
AS 20-0050 DS	94606050	Orange	Length 48.4 mm
AS 20-0050 DS	94604050	Blue	Length 48.4 mm
AS 20-0050 DS	94607050	Dark grey	Length 48.4 mm
AS 20-0100 DS	94605100	Red	Length 98.4 mm
AS 20-0100 DS	94603100	Green	Length 98.4 mm
AS 20-0100 DS	94606100	Orange	Length 98.4 mm
AS 20-0100 DS	94604100	Blue	Length 98.4 mm
AS 20-0100 DS	94607100	Dark grey	Length 98.4 mm
AS 20-0150 DS	94605150	Red	Length 148.4 mm
AS 20-0150 DS	94603150	Green	Length 148.4 mm
AS 20-0150 DS	94606150	Orange	Length 148.4 mm
AS 20-0150 DS	94604150	Blue	Length 148.4 mm
AS 20-0150 DS	94607150	Dark grey	Length 148.4 mm
AS 20-0200 DS	94605200	Red	Length 198.4 mm
AS 20-0200 DS	94603200	Green	Length 198.4 mm
AS 20-0200 DS	94606200	Orange	Length 198.4 mm
AS 20-0200 DS	94604200	Blue	Length 198.4 mm
AS 20-0200 DS	94607200	Dark grey	Length 198.4 mm

Scope of delivery: 10 decor strips



Alustyle accessories



Wall brackets

Model	Order no.	Colour	Note
AS 0030-0100 WB-7024	94772100	Graphite grey	For AS 830/1030/1230, for profile length 100 mm
AS 0030-0100 WB-9006	94771100	Silver	For AS 830/1030/1230, for profile length 100 mm
AS 0030-0150 WB-7024	94772150	Graphite grey	For AS 830/1030/1230, for profile length 150 mm
AS 0030-0150 WB-9006	94771150	Silver	For AS 830/1030/1230, for profile length 150 mm
AS 0030-0200 WB-7024	94772200	Graphite grey	For AS 830/1030/1230, for profile length 200 mm
AS 0030-0200 WB-9006	94771200	Silver	For AS 830/1030/1230, for profile length 200 mm
AS 0050-0100 WB-7024	94742100	Graphite grey	For AS 1850, for profile length 100 mm
AS 0050-0100 WB-9006	94741100	Silver	For AS 1850, for profile length 100 mm
AS 0050-0150 WB-7024	94742150	Graphite grey	For AS 1850, for profile length 150 mm
AS 0050-0150 WB-9006	94741150	Silver	For AS 1850, for profile length 150 mm
AS 0050-0200 WB-7024	94742200	Graphite grey	For AS 1850, for profile length 200 mm
AS 0050-0200 WB-9006	94741200	Silver	For AS 1850, for profile length 200 mm

Scope of delivery: 2 wall fittings, 4 covers, graphite grey

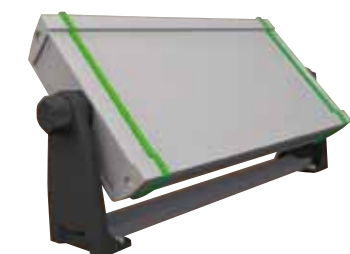
Note: The wall fittings can be mounted on the closed enclosure at a later date.



Coloured covers for wall brackets

Model	Order no.	Colour	Note
AS 0030 AK-WB-rot	94785000	Red	For AS 0030-...WB-...
AS 0030 AK-WB-grün	94783000	Green	For AS 0030-...WB-...
AS 0030 AK-WB-orange	94786000	Orange	For AS 0030-...WB-...
AS 0030 AK-WB-blau	94784000	Blue	For AS 0030-...WB-...
AS 0050 AK-WB-rot	94795000	Red	For AS 0050-...WB-...
AS 0050 AK-WB grün	94793000	Green	For AS 0050-...WB-...
AS 0050 AK-WB-orange	94796000	Orange	For AS 0050-...WB-...
AS 0050 AK-WB-blau	94794000	Blue	For AS 0050-...WB-...

Scope of delivery: 4 covers



Universal wall fittings

Model	Order no.	Colour	Note
AS 0100-7024 UWB	94810024	Graphite grey	For profile length 100 mm
AS 0150-7024 UWB	94815024	Graphite grey	For profile length 150 mm
AS 0200-7024 UWB	94820024	Graphite grey	For profile length 200 mm

Scope of delivery: Profile, 2 side flanges (complete), screws, covers

Alustyle accessories

Tower feet

Model	Order no.	Colour	Note
AS 0030-0025 T-7024	94762025	Graphite grey	For AS 830/1030/1230, length 25 mm
AS 0030-0025 T-9006	94761025	Silver	For AS 830/1030/1230, length 25 mm
AS 0030-0100 T-7024	94762100	Graphite grey	For AS 830/1030/1230, for profile length 100 mm
AS 0030-0100 T-9006	94761100	Silver	For AS 830/1030/1230, for profile length 100 mm
AS 0030-0150 T-7024	94762150	Graphite grey	For AS 830/1030/1230, for profile length 150 mm
AS 0030-0150 T-9006	94761150	Silver	For AS 830/1030/1230, for profile length 150 mm
AS 0030-0200 T-7024	94762200	Graphite grey	For AS 830/1030/1230, for profile length 200 mm
AS 0030-0200 T-9006	94761200	Silver	For AS 830/1030/1230, for profile length 200 mm
AS 0050-0025 T-7024	94732025	Graphite grey	For AS 1850, length 25 mm
AS 0050-0025 T-9006	94731025	Silver	For AS 1850, length 25 mm
AS 0050-0100 T-7024	94732100	Graphite grey	For AS 1850, for profile length 100 mm
AS 0050-0100 T-9006	94731100	Silver	For AS 1850, for profile length 100 mm
AS 0050-0150 T-7024	94732150	Graphite grey	For AS 1850, for profile length 150 mm
AS 0050-0150 T-9006	94731150	Silver	For AS 1850, for profile length 150 mm
AS 0050-0200 T-7024	94732200	Graphite grey	For AS 1850, for profile length 200 mm
AS 0050-0200 T-9006	94731200	Silver	For AS 1850, for profile length 200 mm

Scope of delivery: 1 tower foot, 4 rubber feet or 2 tower feet, 4 rubber feet with AS 0030-0025 T-...

Note: For 25 mm length, decor strips are needed to fill the grooves.

AS 0050-....T-.... can also be used as a console tip-up foot for AS 830/1030/1230



Tip-up feet

Model	Order no.	Colour	Note
AS 0030-0025 A-7024	94752025	Graphite grey	Tip-up foot, length 25 mm
AS 0030-0025 A-9006	94751025	Silver	Tip-up foot, length 25 mm
AS 0030-0100 A-7024	94752100	Graphite grey	For profile length 100 mm
AS 0030-0100 A-9006	94751100	Silver	For profile length 100 mm
AS 0030-0150 A-7024	94752150	Graphite grey	For profile length 150 mm
AS 0030-0150 A-9006	94751150	Silver	For profile length 150 mm
AS 0030-0200 A-7024	94752200	Graphite grey	For profile length 200 mm
AS 0030-0200 A-9006	94751200	Silver	For profile length 200 mm

Scope of delivery: 1 tip-up foot or 2 tip-up feet with AS 0030-0025 A-...

Note: For 25 mm length, decor strips are needed to fill the grooves.



Alustyle accessories



Front panels, natural-coloured anodised aluminium

Model	Order no.	Note
ASPU 830-0100 FP2	94310100	For ASPU 830-0100
ASPU 830-0150 FP2	94310150	For ASPU 830-0150
ASPU 830-0200 FP2	94310200	For ASPU 830-0200
ASPU 830-1000 FP2	94310000	For ASPU 830-1000
ASPU 1030-0100 FP2	94320100	For ASPU 1030-0100
ASPU 1030-0150 FP2	94320150	For ASPU 1030-0150
ASPU 1030-0200 FP2	94320200	For ASPU 1030-0200
ASPU 1030-1000 FP2	94320000	For ASPU 1030-1000
ASPU 1230-0100 FP2	94330100	For ASPU 1230-0100
ASPU 1230-0150 FP2	94330150	For ASPU 1230-0150
ASPU 1230-0200 FP2	94330200	For ASPU 1230-0200
ASPU 1230-1000 FP2	94330000	For ASPU 1230-1000
ASPU 1850-0100 FP2,5	94340100	For ASPU 1850-0100
ASPU 1850-0150 FP2,5	94340150	For ASPU 1850-0150
ASPU 1850-0200 FP2,5	94340200	For ASPU 1850-0200
ASPU 1850-1000 FP2,5	94340000	For ASPU 1850-1000

Scope of delivery: 1 front panel



Battery compartments

Model	Order no.	Note
AS-BE-3 MN	94833000	For ASM 1030/1230
AS-BE-4 MN	94834000	For ASM 1030/1230
AS-BE-9V	94839000	For ASM 830/1030/1230

Scope of delivery: 5 battery compartments

Note: Processing of the ASM mounting lid is required if battery compartments are to be fitted.



Design lid for profile size 1230

Model	Order no.	Colour
ASD 1230 D-9006	94431600*	Silver
ASD 1230 D-7024	94432600*	Graphite grey

Scope of delivery: Lid including dark grey seal, screws, graphite grey screw covers

Note: * = Available on request

Application example

of our comprehensive range of services for Alustyle



Design and manufacture of customer-specific membrane keypads
Coordinated design of enclosure and membrane keypad

Mechanical processing:

Cutting / sawing of variable-length profile cuts
Milling, drilling, countersinking, thread-cutting, punching

Mounting work:

Mounting of connectors
Mounting of membrane keypads
Insertion of supplied components

**This is only a small selection
of our comprehensive range of services,
with which we manufacture individual
products of excellent quality.**

For more information, please see the introduction to the catalogue.



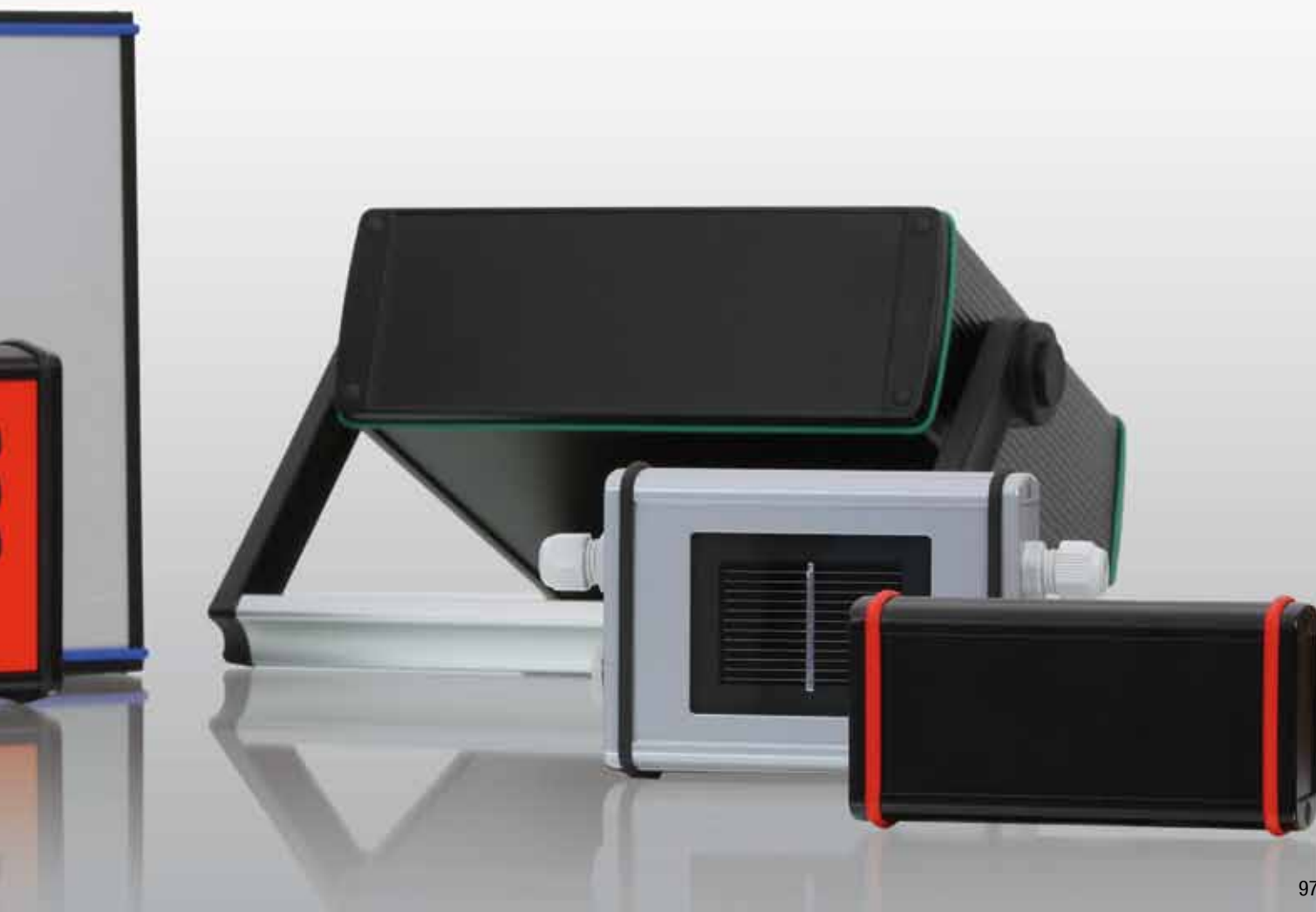
Alubos

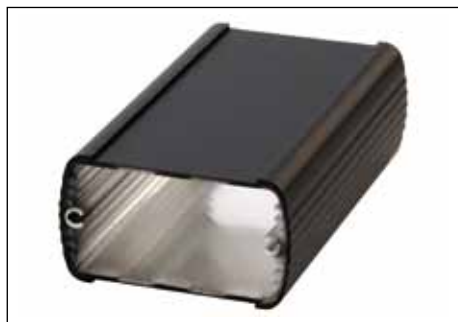
Universal aluminium profile enclosure, IP 65

- 3 profile variants
- 9 profile cross-sections
- Standard lengths ex warehouse
- Special lengths available at short notice
- Functional diecast zinc end covers
- Good EMC shielding
- EMC seal optional
- Design seals in 5 colours
- Wide range of accessories



Colour	Black, similar to RAL 9005; special colours on request
Protection class	ABP, ABPH: up to IP 65/DIN EN 60529; ABPU: IP 40/DIN EN 60529
Enclosure material	Extruded profiles: Al Mg Si 0.5 powder-coated; diecast lid: GD Al Si 12, powder-coated; seal: TPE; for details see Technical Information





ABP – closed profile



ABPH – Divided profile variant for easier mounting of electronic and other components



ABPU – Profile for easy insertion of front panels or operating and display units



The enclosure profiles are equipped with grooves to accommodate circuit boards or mounting panels. There are recessed areas on the upper or lower sides for the fitting of membrane keypads. The side surfaces are designed ergonomically, so they are easy to handle.



ABD – The end cover is equipped with a recessed area for fitting front membranes or membrane keypads. All lids are fitted with contact areas which contact the lid to the profile. This guarantees good EMC protection even for the standard enclosure. Black metal-filled EMC seals are available for increased EMC resistance.



ABM...AL – The mounting lid has a recessed mounting area for fitting various connectors and sockets. An aluminium cap with seal is snapped-on to achieve IP 65 protection of the assembly section.



ABM...SAL – The mounting lid is also available with a hinged aluminium flap



ABM...IR – The mounting lid has a recessed mounting area for fitting various connectors and sockets. An infrared-permissive plastic cap is snapped-on to achieve IP 65 protection of the assembly section.



DI... – A black seal is included with all lids as standard. We also supply coloured seals and an EMC seal. UL 94 V0 seals in black on request.

Alubos 600 enclosure profiles

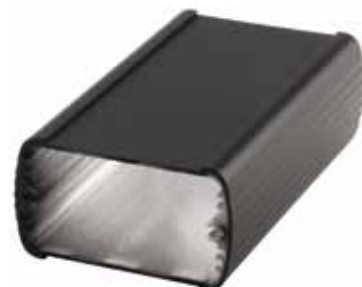
Enclosure profiles, closed

Model	Order no.	A	B	C
ABP 600-0100	84060100	57	32	100
ABP 600-0150	84060150	57	32	150
ABP 600-0200	84060200	57	32	200
ABP 600-1000	84060000	57	32	1000

Scope of delivery: Enclosure profile

Note: C = profile length, special lengths on request.

Accessories: See following pages.



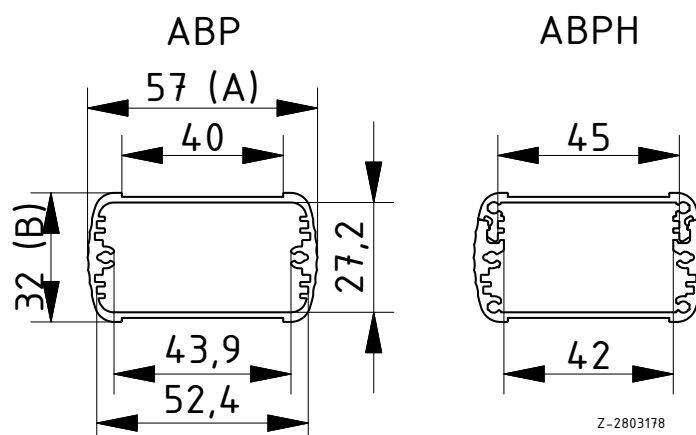
Enclosure profiles, horizontally-divided

Model	Order no.	A	B	C
ABPH 600-0100	84066100	57	32	100
ABPH 600-0150	84066150	57	32	150
ABPH 600-0200	84066200	57	32	200
ABPH 600-1000	84066001	57	32	1000

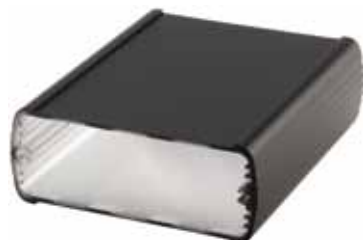
Scope of delivery: Enclosure profile, two parts including profile seal

Note: C = profile length, special lengths on request.

Accessories: See following pages.



Alubos 800 enclosure profiles



Enclosure profiles, closed

Model	Order no.	A	B	C
ABP 800-0100	84080100	82	32	100
ABP 800-0150	84080150	82	32	150
ABP 800-0200	84080200	82	32	200
ABP 800-1000	84080000	82	32	1000

Scope of delivery: Enclosure profile

Note: C = profile length, special lengths on request.

Accessories: See following pages.



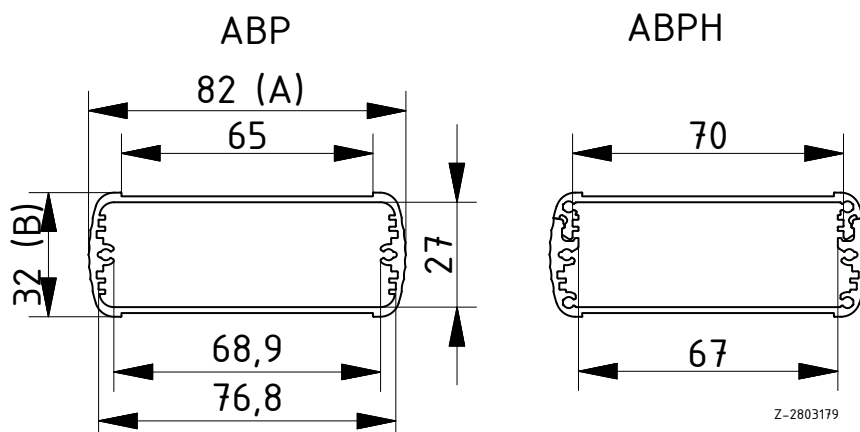
Enclosure profiles, horizontally-divided

Model	Order no.	A	B	C
ABPH 800-0100	84086100	82	32	100
ABPH 800-0150	84086150	82	32	150
ABPH 800-0200	84086200	82	32	200
ABPH 800-1000	84086001	82	32	1000

Scope of delivery: Enclosure profile, two parts including profile seal

Note: C = profile length, special lengths on request.

Accessories: See following pages.



Z-2803179

Alubos 820 enclosure profiles

Enclosure profiles, closed

Model	Order no.	A	B	C
ABP 820-0100	84820100	82	22	100
ABP 820-0150	84820150	82	22	150
ABP 820-0200	84820200	82	22	200
ABP 820-1000	84820000	82	22	1000

Scope of delivery: Enclosure profile

Note: C = profile length, special lengths on request.

Accessories: See following pages.



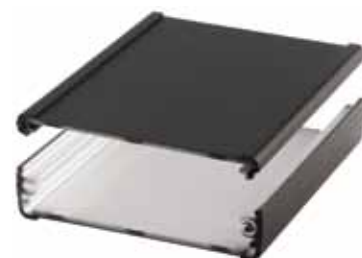
Enclosure profiles, horizontally-divided

Model	Order no.	A	B	C
ABPH 820-0100	84826100	82	22	100
ABPH 820-0150	84826150	82	22	150
ABPH 820-0200	84826200	82	22	200
ABPH 820-1000	84826000	82	22	1000

Scope of delivery: Enclosure profile, two parts including profile seal

Note: C = profile length, special lengths on request.

Accessories: See following pages.



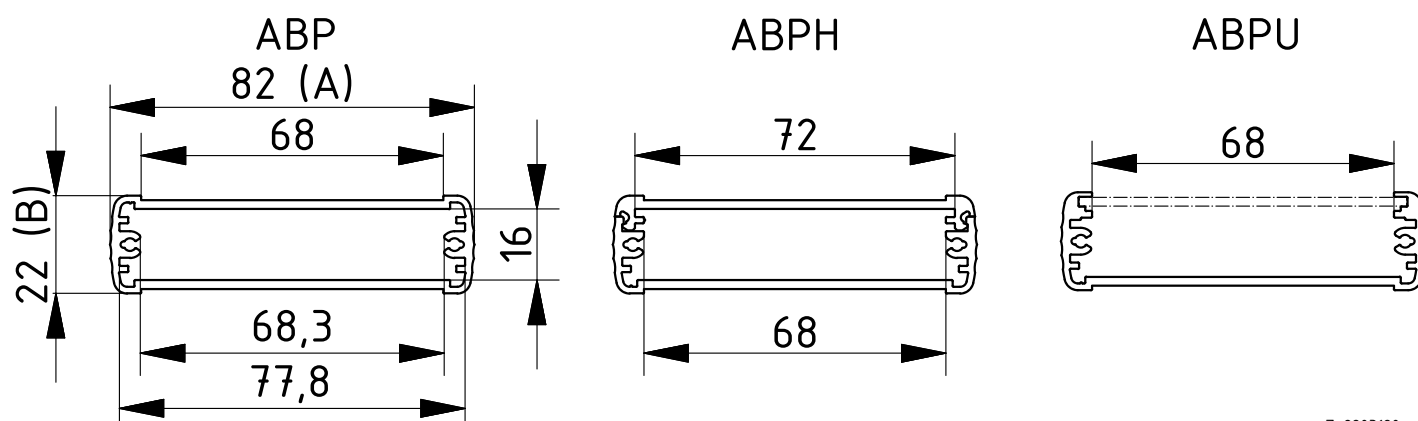
Enclosure profiles, open on one side

Model	Order no.	A	B	C
ABPU 820-0100	84827100	82	22	100
ABPU 820-0150	84827150	82	22	150
ABPU 820-0200	84827200	82	22	200
ABPU 820-1000	84827000	82	22	1000

Scope of delivery: Enclosure profile. Please order front panel for ABPU separately.

Note: C = profile length, special lengths on request.

Accessories: See following pages.



Alubos 1000 enclosure profiles



Enclosure profiles, closed

Model	Order no.	A	B	C
ABP 1000-0100	84100100	106	32	100
ABP 1000-0150	84100150	106	32	150
ABP 1000-0200	84100200	106	32	200
ABP 1000-1000	84100000	106	32	1000

Scope of delivery: Enclosure profile

Note: C = profile length, special lengths on request.

Accessories: See following pages.



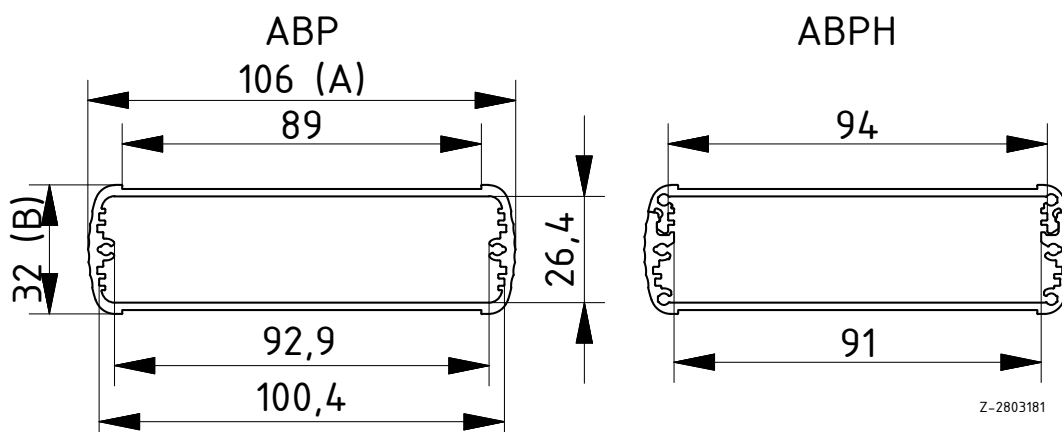
Enclosure profiles, horizontally-divided

Model	Order no.	A	B	C
ABPH 1000-0100	84106100	106	32	100
ABPH 1000-0150	84106150	106	32	150
ABPH 1000-0200	84106200	106	32	200
ABPH 1000-1000	84106001	106	32	1000

Scope of delivery: Enclosure profile, two parts including profile seal

Note: C = profile length, special lengths on request.

Accessories: See following pages.



Z-2803181

Alubos 1040 enclosure profiles

Enclosure profiles, closed

Model	Order no.	A	B	C
ABP 1040-0100	84040100	108	42	100
ABP 1040-0150	84040150	108	42	150
ABP 1040-0200	84040200	108	42	200
ABP 1040-1000	84040000	108	42	1000

Scope of delivery: Enclosure profile

Note: C = profile length, special lengths on request.

Accessories: See following pages.



Enclosure profiles, horizontally-divided

Model	Order no.	A	B	C
ABPH 1040-0100	84046100	108	42	100
ABPH 1040-0150	84046150	108	42	150
ABPH 1040-0200	84046200	108	42	200
ABPH 1040-1000	84046000	108	42	1000

Scope of delivery: Enclosure profile, two parts including profile seal

Note: C = profile length, special lengths on request.

Accessories: See following pages.



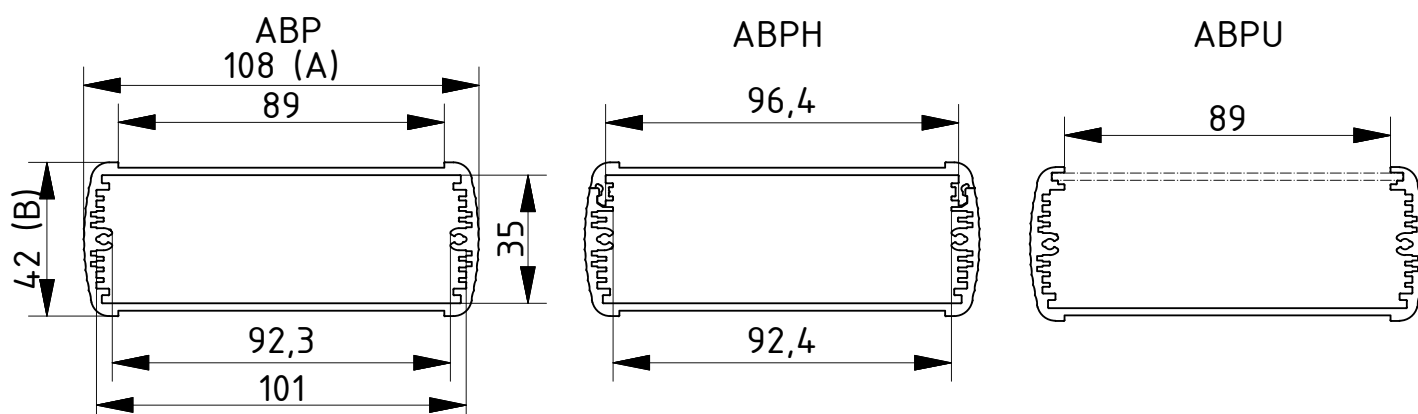
Enclosure profiles, open on one side

Model	Order no.	A	B	C
ABPU 1040-0100	84047100	108	42	100
ABPU 1040-0150	84047150	108	42	150
ABPU 1040-0200	84047200	108	42	200
ABPU 1040-1000	84047000	108	42	1000

Scope of delivery: Enclosure profile. Please order front panel for ABPU separately.

Note: C = profile length, special lengths on request.

Accessories: See following pages.



Alubos 1300 enclosure profiles



Enclosure profiles, closed

Model	Order no.	A	B	C
ABP 1300-0100	84130100	138	34	100
ABP 1300-0150	84130150	138	34	150
ABP 1300-0200	84130200	138	34	200
ABP 1300-1000	84130000	138	34	1000

Scope of delivery: Enclosure profile

Note: C = profile length, special lengths on request.

Accessories: See following pages.



Enclosure profiles, horizontally-divided

Model	Order no.	A	B	C
ABPH 1300-0100	84136100	138	34	100
ABPH 1300-0150	84136150	138	34	150
ABPH 1300-0200	84136200	138	34	200
ABPH 1300-1000	84136000	138	34	1000

Scope of delivery: Enclosure profile, two parts including profile seal

Note: C = profile length, special lengths on request.

Accessories: See following pages.



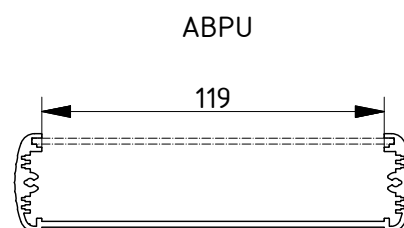
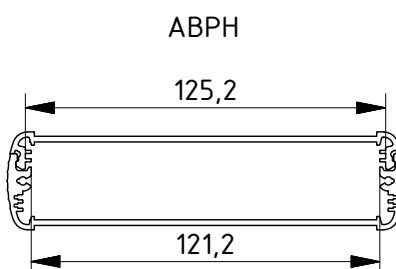
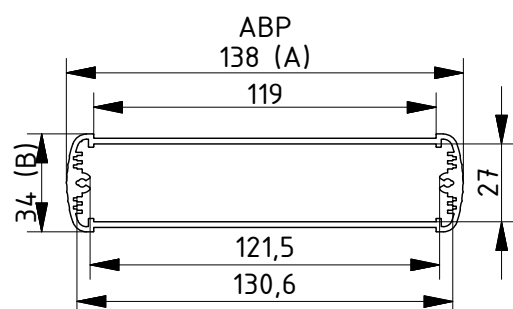
Enclosure profiles, open on one side

Model	Order no.	A	B	C
ABPU 1300-0100	84137100	138	34	100
ABPU 1300-0150	84137150	138	34	150
ABPU 1300-0200	84137200	138	34	200
ABPU 1300-1000	84137000	138	34	1000

Scope of delivery: Enclosure profile. Please order front panel for ABPU separately.

Note: C = profile length, special lengths on request.

Accessories: See following pages.



Alubos 1600 enclosure profiles

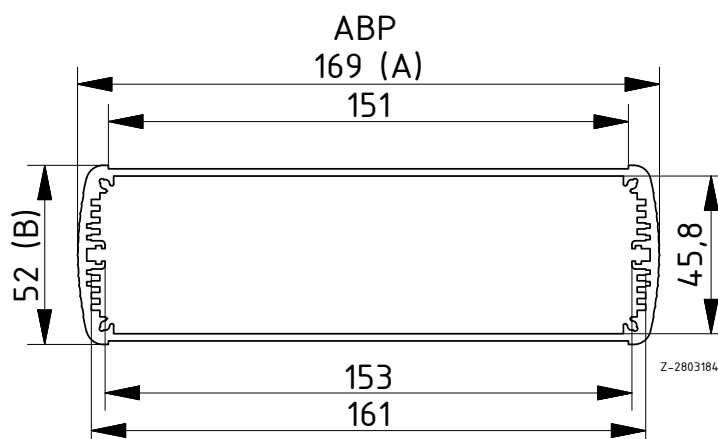
Enclosure profiles, closed

Model	Order no.	A	B	C
ABP 1600-0100	84160100	169	52	100
ABP 1600-0150	84160150	169	52	150
ABP 1600-0200	84160200	169	52	200
ABP 1600-1000	84160001	169	52	1000

Scope of delivery: Enclosure profile

Note: C = profile length, special lengths on request.

Accessories: See following pages.



Alubos 1680 enclosure profiles



Enclosure profiles, closed

Model	Order no.	A	B	C
ABP 1680-0100	84680100	169	82	100
ABP 1680-0150	84680150	169	82	150
ABP 1680-0200	84680200	169	82	200
ABP 1680-1000	84680000	169	82	1000

Scope of delivery: Enclosure profile

Note: C = profile length, special lengths on request.

Accessories: See following pages.



Enclosure profiles, horizontally-divided

Model	Order no.	A	B	C
ABPH 1680-0100	84686100	169	82	100
ABPH 1680-0150	84686150	169	82	150
ABPH 1680-0200	84686200	169	82	200
ABPH 1680-1000	84686000	169	82	1000

Scope of delivery: Enclosure profile, two parts including profile seal

Note: C = profile length, special lengths on request.

Accessories: See following pages.



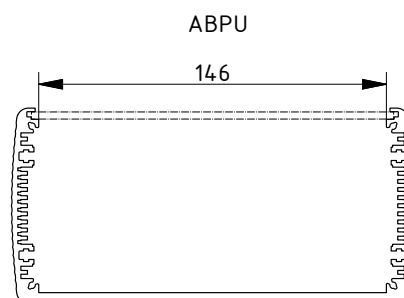
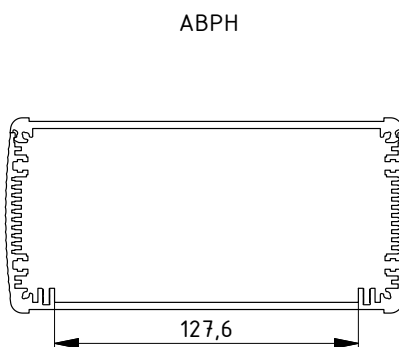
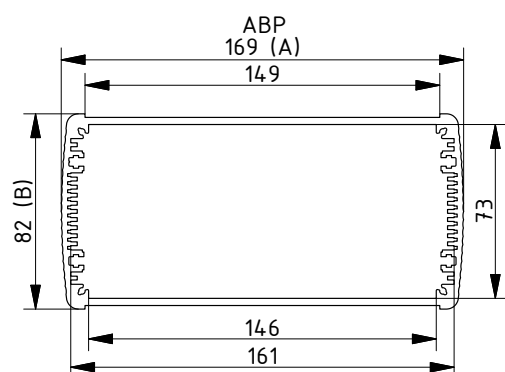
Enclosure profiles, open on one side

Model	Order no.	A	B	C
ABPU 1680-0100	84687100	169	82	100
ABPU 1680-0150	84687150	169	82	150
ABPU 1680-0200	84687200	169	82	200
ABPU 1680-1000	84687000	169	82	1000

Scope of delivery: Enclosure profile. Please order front panel for ABPU separately.

Note: C = profile length, special lengths on request.

Accessories: See following pages.



Alubos 2070 enclosure profiles

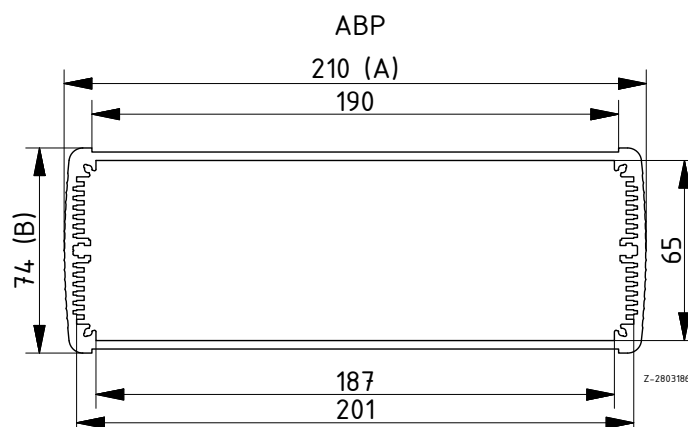
Enclosure profiles, closed

Model	Order no.	A	B	C
ABP 2070-0100	84207100	210	74	100
ABP 2070-0150	84207150	210	74	150
ABP 2070-0200	84207200	210	74	200
ABP 2070-1000	84207000	210	74	1000

Scope of delivery: Enclosure profile

Note: C = profile length, special lengths on request.

Accessories: See following pages.



Alubos accessories



End cover

Model	Order no.	Note
ABD 600	84061000	For AB 600
ABD 800	84081000	For AB 800
ABD 820	84821000	For AB 820
ABD 1000	84101000	For AB 1000
ABD 1040	84041000	For AB 1040
ABD 1300	84131000	For AB 1300
ABD 1600	84161000	For AB 1600
ABD 1680	84168100	For AB 1680
ABD 2070	84271000	For AB 2070

Scope of delivery: Lid, black seal, screws, black screw covers



Mounting lid with removable aluminium cap

Model	Order no.	Note
ABM 600 AL	84062000	For AB 600
ABM 800 AL	84082000	For AB 800
ABM 1000 AL	84102000	For AB 1000
ABM 1040 AL	84042000	For AB 1040
ABM 1300 AL	84132000	For AB 1300

Scope of delivery: Mounting lid, aluminium profile cap, black seal, screws, black screw covers



Mounting lid with hinged aluminium flap

Model	Order no.	Note
ABM 600 SAL	84064000	For AB 600
ABM 800 SAL	84084000	For AB 800
ABM 1000 SAL	84104000	For AB 1000
ABM 1040 SAL	84044000	For AB 1040
ABM 1300 SAL	84134000	For AB 1300

Scope of delivery: Mounting lid, hinged aluminium flap, black seal, screws, black screw covers



Mounting lid with removable aluminium cap and compartment for 9V block battery

Model	Order no.	Note
ABM 600 AL BE	84062100	For AB 600
ABM 800 AL BE	84082100	For AB 800
ABM 1000 AL BE	84102100	For AB 1000

Scope of delivery: Mounting lid, aluminium profile cap, compartment for 9V block battery, black seal, screws, black screw covers

Note: More BE designs available on request

Alubos accessories

Mounting lid with hinged aluminium flap and compartment for 9V block battery

Model	Order no.	Note
ABM 600 SAL-BE	84064100	For AB 600
ABM 800 SAL-BE	84084100	For AB 800
ABM 1000 SAL-BE	84104100	For AB 1000

Scope of delivery: Mounting lid, hinged aluminium flap, compartment for 9V block battery, black seal, screws, black screw covers

Note: More BE designs available on request



Mounting lid with infrared-permissive plastic cap

Model	Order no.	Note
ABM 600 IR	84063000	For AB 600
ABM 800 IR	84083000	For AB 800
ABM 1000 IR	84103000	For AB 1000

Scope of delivery: Mounting lid, infrared-permissive plastic cap, black seal, screws, black screw covers

Note: More BE designs available on request



Mounting lid with infrared-permissive plastic cap and compartment for 9V block battery

Model	Order no.	Note
ABM 600 IR BE	84063100	For AB 600
ABM 800 IR BE	84083100	For AB 800
ABM 1000 IR BE	84103100	For AB 1000

Scope of delivery: Mounting lid, infrared-permissive plastic cap, compartment for 9V block battery, black seal, screws, black screw covers

Note: More BE designs available on request



EMC seals

Model	Order no.	Note
DI 600-EMV	84200615	For AB 600
DI 800-EMV	84200815	For AB 800
DI 820-EMV	84208215	For AB 820
DI 1000-EMV	84201015	For AB 1000
DI 1040-EMV	84200415	For AB 1040
DI 1300-EMV	84201315	For AB 1300
DI 1600-EMV	84201615	For AB 1600
DI 1680-EMV	84206815	For AB 1680
DI 2070-EMV	84202715	For AB 2070

Scope of delivery: 10 seals



Alubos accessories



Seals, ultramarine

Model	Order no.	Note
DI 600-5002	84200614	For AB 600
DI 800-5002	84200814	For AB 800
DI 820-5002	84208214	For AB 820
DI 1000-5002	84201014	For AB 1000
DI 1040-5002	84200414	For AB 1040
DI 1300-5002	84201314	For AB 1300
DI 1600-5002	84201614	For AB 1600
DI 1680-5002	84206814	For AB 1680
DI 2070-5002	84202714	For AB 2070

Scope of delivery: 10 seals



Seals, fire red

Model	Order no.	Note
DI 600-3000	84200611	For AB 600
DI 800-3000	84200811	For AB 800
DI 820-3000	84208211	For AB 820
DI 1000-3000	84201011	For AB 1000
DI 1040-3000	84200411	For AB 1040
DI 1300-3000	84201311	For AB 1300
DI 1600-3000	84201616	For AB 1600
DI 1680-3000	84206811	For AB 1680
DI 2070-3000	84202711	For AB 2070

Scope of delivery: 10 seals



Seals, rape yellow

Model	Order no.	Note
DI 600-1021	84200612	For AB 600
DI 800-1021	84200812	For AB 800
DI 820-1021	84208212	For AB 820
DI 1000-1021	84201012	For AB 1000
DI 1040-1021	84200412	For AB 1040
DI 1300-1021	84201312	For AB 1300
DI 1600-1021	84201612	For AB 1600
DI 1680-1021	84206812	For AB 1680
DI 2070-1021	84202712	For AB 2070

Scope of delivery: 10 seals

Alubos accessories

Seals, patina green

Model	Order no.	Note
DI 600-6000	84200613	For AB 600
DI 800-6000	84200813	For AB 800
DI 820-6000	84208213	For AB 820
DI 1000-6000	84201013	For AB 1000
DI 1040-6000	84200413	For AB 1040
DI 1300-6000	84201313	For AB 1300
DI 1600-6000	84201613	For AB 1600
DI 1680-6000	84206813	For AB 1680
DI 2070-6000	84202713	For AB 2070

Scope of delivery: 10 seals



Seals UL 94 V0

Model	Order no.	Note
DI 600-V0	84200619*	For AB 600
DI 800-V0	84200819*	For AB 800
DI 820-V0	84208219*	For AB 820
DI 1000-V0	84201019*	For AB 1000
DI 1040-V0	84200419*	For AB 1040
DI 1300-V0	84201319*	For AB 1300
DI 1600-V0	84201619*	For AB 1600
DI 1680-V0	84206819*	For AB 1680
DI 2070-V0	84202719*	For AB 2070

Scope of delivery: 10 seals

Note: * = Available on request



Wall brackets

Model	Order no.	Note
AB-WL	84005000	For AB 600/800/1000/1300
AB-WL1	84006001	For AB 820
AB-WL2	84007000	For AB 1040
AB-WL 3	84008000	For AB 1600/1680/2070

Scope of delivery: Wall brackets, sealing rings, screws



Alubos accessories



Wall brackets, adjustable

Model	Order no.	Note
AB-600 WLV	84065000	For AB 600
AB-800 WLV	84085000	For AB 800/820
AB-1000 WLV	84105000	For AB 1000/1040

Scope of delivery: Wall brackets (2 top parts, 2 bottom parts), 2 metric screws, 2 serrated lock washers, 4 sealing rings, 4 screws (18 mm long for ABD lid), 4 screws (22 mm long for ABM lid)

Note: The enclosures can be tilted at angles between 0° and 90° (80° with AB 1040).

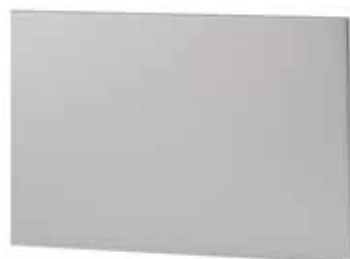


Handle / tip-up bow, hinged

Model	Order no.	Note
AB 1600 HS	84162000	For AB 1600/1680
AB 2000 HS	84200000	For AB 2070

Scope of delivery: 1 handle, fixing material

Note: Fixed 30° handle locking position. Versions for fitting to the lids on request.



Front panels, natural-coloured anodised aluminium

Model	Order no.	Note
ABPU 820-0100 FP2	84828100	For ABPU 820-0100
ABPU 820-0150 FP2	84828150	For ABPU 820-0150
ABPU 820-0200 FP2	84828200	For ABPU 820-0200
ABPU 820-1000 FP2	84828000	For ABPU 820-1000
ABPU 1040-0100 FP2	84048100	For ABPU 1040-0100
ABPU 1040-0150 FP2	84048150	For ABPU 1040-0150
ABPU 1040-0200 FP2	84048200	For ABPU 1040-0200
ABPU 1040-1000 FP2	84048000	For ABPU 1040-1000
ABPU 1300-0100 FP2	84138100	For ABPU 1300-0100
ABPU 1300-0150 FP2	84138150	For ABPU 1300-0150
ABPU 1300-0200 FP2	84138200	For ABPU 1300-0200
ABPU 1300-1000 FP2	84138000	For ABPU 1300-1000
ABPU 1680-0100 FP3	84689100	For ABPU 1680-0100
ABPU 1680-0150 FP3	84689150	For ABPU 1680-0150
ABPU 1680-0200 FP3	84689200	For ABPU 1680-0200
ABPU 1680-1000 FP3	84689000	For ABPU 1680-1000

Scope of delivery: 1 front panel

Alubos accessories

Mounting clamps

Model	Order no.	Note
AB 600 MKL	84006600	For AB 600
AB 800 MKL	84006400	For AB 800
AB 1000 MKL	84006500	For AB 1000
AB-MKL	84006300	For AB 600/800/1000

Scope of delivery: 1 mounting clamp, stainless spring steel

Note: We recommend using two clamps for profile lengths of 150 mm and over. Direct wall mounting of the clamps is possible with all versions. On request, the mounting clamps can also be supplied coated.



Self-adhesive rubber feet, black

Model	Order no.	Colour	Note
AB – GF	84006700	Black	Polyurethane, 65-75 Shore

Scope of delivery: 4 rubber feet





BOS-Ecoline

Clear lines and natural-coloured anodised aluminium characterise this profile enclosure

- 3 profile variants
- 4 profile cross-sections
- 3 standard lengths ex warehouse
- Special lengths available at short notice
- End covers made of ABS, similar to RAL 7037
- End covers also available with moulded-on wall fitting
- Console type on request



Colour	Profile natural-coloured anodised aluminium; plastic lid dust grey, similar to RAL 7037; special colours on request
Protection class	IP 40/DIN EN 60529; ELP with optional seal, upgradable to IP 54/DIN EN 605294; ELPH with IP 54/DIN EN 60529 on request
Enclosure material	Extruded profiles: Al Mg Si 0.5 anodised; plastic lid: ABS; for details see Technical Information





ELP – Closed profile



ELPH – Divided profile variant for easier mounting of electronic and other components



ELPU – U-profile for easy insertion of front panels or operating and display units



ELP...D – End cover without wall fitting



ELP...DW – End cover with integrated wall fitting



All end covers have a 1.5 mm deep recessed area for fitting membrane keypads. On the inside there are screw-on bosses (except for EL 620) for the fitting of circuit boards parallel to the front surface and which are designed to match the height of short-stroke keys.



The profiles are fitted with grooves to hold PCBs or mounting panels. There are recessed surfaces on the top and bottom profile sides for fitting membrane keypads. The side surfaces also have smooth areas so that USB interfaces, Sub-D plugs or similar can be placed on the sides.



The enclosure system provides ingress protection IP 40/DIN EN 60529 as standard; this can be increased to a maximum of IP 54 in the ELP profile type by using seal EL...DI. For the ELPH profile type, ingress protection can be increased on request.

BOS-Ecoline 620

Closed enclosure with plastic lids

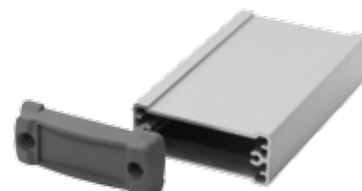
Model	Order no.	A	B	C
ELP 620-0100 D	83062100.S1	57,5	22	100
ELP 620-0150 D	83062150.S1	57,5	22	150
ELP 620-0200 D	83062200.S1	57,5	22	200
ELP 620-0100 DW	83062100.S2	57,5	22	100
ELP 620-0150 DW	83062150.S2	57,5	22	150
ELP 620-0200 DW	83062200.S2	57,5	22	200

Scope of delivery: 1 enclosure profile, 2 plastic end covers, 4 screws, 4 screw covers

Note: C = profile length, special lengths on request.

D = end cover without wall bracket; DW = end cover with wall bracket

Accessories: See following pages.



Enclosure, horizontally-divided, with plastic lids

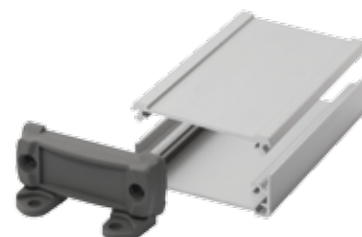
Model	Order no.	A	B	C
ELPH 620-0100 D	83626100.S1	57,5	22	100
ELPH 620-0150 D	83626150.S1	57,5	22	150
ELPH 620-0200 D	83626200.S1	57,5	22	200
ELPH 620-0100 DW	83626100.S2	57,5	22	100
ELPH 620-0150 DW	83626150.S2	57,5	22	150
ELPH 620-0200 DW	83626200.S2	57,5	22	200

Scope of delivery: 1 enclosure profile (2 parts), 2 plastic end covers, 4 screws, 4 screw covers

Note: C = profile length, special lengths on request.

D = end cover without wall bracket; DW = end cover with wall bracket

Accessories: See following pages.



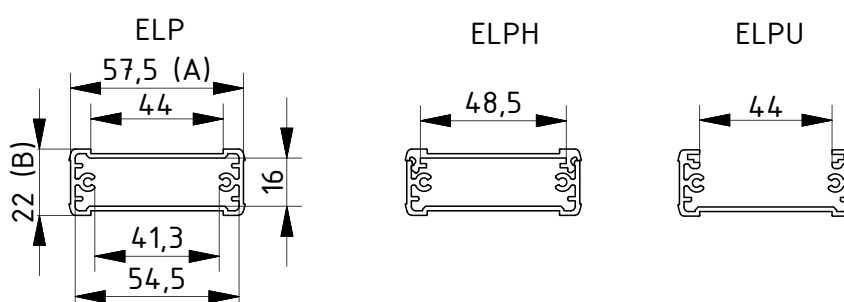
Enclosure, open on one side, with plastic lids

Model	Order no.	A	B	C
ELPU 620-0100 D	83627100.S1	57,5	22	100
ELPU 620-0150 D	83627150.S1	57,5	22	150
ELPU 620-0200 D	83627200.S1	57,5	22	200
ELPU 620-0100 DW	83627100.S2	57,5	22	100
ELPU 620-0150 DW	83627150.S2	57,5	22	150
ELPU 620-0200 DW	83627200.S2	57,5	22	200

Scope of delivery: 1 enclosure profile, 2 plastic end covers, 4 screws, 4 screw covers

Front panels for ELP available as accessories

Note: C = profile length, special lengths on request. D = end cover without wall bracket; DW = end cover with wall bracket Accessories: See following pages.



Z-2803210

BOS-Ecoline 840



Closed enclosure with plastic lids

Model	Order no.	A	B	C
ELP 840-0100 D	83084100.S1	80	42	100
ELP 840-0150 D	83084150.S1	80	42	150
ELP 840-0200 D	83084200.S1	80	42	200
ELP 840-0100 DW	83084100.S2	80	42	100
ELP 840-0150 DW	83084150.S2	80	42	150
ELP 840-0200 DW	83084200.S2	80	42	200

Scope of delivery: 1 enclosure profile, 2 plastic end covers, 4 screws, 4 screw covers

Note: C = profile length, special lengths on request.

D = end cover without wall bracket; DW = end cover with wall bracket

Accessories: See following pages.



Enclosure, horizontally-divided, with plastic lids

Model	Order no.	A	B	C
ELPH 840-0100 D	83846100.S1	80	42	100
ELPH 840-0150 D	83846150.S1	80	42	150
ELPH 840-0200 D	83846200.S1	80	42	200
ELPH 840-0100 DW	83846100.S2	80	42	100
ELPH 840-0150 DW	83846150.S2	80	42	150
ELPH 840-0200 DW	83846200.S2	80	42	200

Scope of delivery: 1 enclosure profile (2 parts), 2 plastic end covers, 4 screws, 4 screw covers

Note: C = profile length, special lengths on request.

D = end cover without wall bracket; DW = end cover with wall bracket

Accessories: See following pages.



Enclosure, open on one side, with plastic lids

Model	Order no.	A	B	C
ELPU 840-0100 D	83847100.S1	80	42	100
ELPU 840-0150 D	83847150.S1	80	42	150
ELPU 840-0200 D	83847200.S1	80	42	200
ELPU 840-0100 DW	83847100.S2	80	42	100
ELPU 840-0150 DW	83847150.S2	80	42	150
ELPU 840-0200 DW	83847200.S2	80	42	200

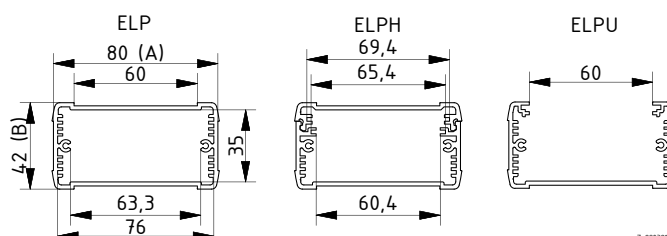
Scope of delivery: 1 enclosure profile, 2 plastic end covers, 4 screws, 4 screw covers

Front panels for ELP available as accessories

Note: C = profile length, special lengths on request.

D = end cover without wall bracket; DW = end cover with wall bracket

Accessories: See following pages.



BOS-Ecoline

ELPH-EU 1050 Euro card format

Enclosure, horizontally-divided, with plastic lids

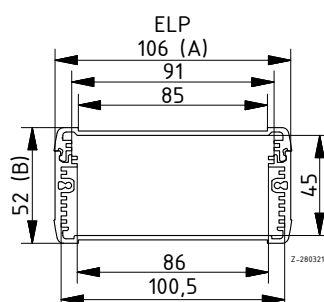
Model	Order no.	A	B	C
ELPH-EU 1050-0100 D	83055100.S1	106	52	100
ELPH-EU 1050-0150 D	83055150.S1	106	52	150
ELPH-EU 1050-0200 D	83055200.S1	106	52	200
ELPH-EU 1050-0100 DW	83055100.S2	106	52	100
ELPH-EU 1050-0150 DW	83055150.S2	106	52	150
ELPH-EU 1050-0200 DW	83055200.S2	106	52	200

Scope of delivery: 1 enclosure profile (2 parts), 2 plastic end covers, 4 screws, 4 screw covers

Note: C = profile length, special lengths on request.

D = end cover without wall bracket; DW = end cover with wall bracket

Accessories: See following pages.



BOS-Ecoline 1050



Closed enclosure with plastic lids

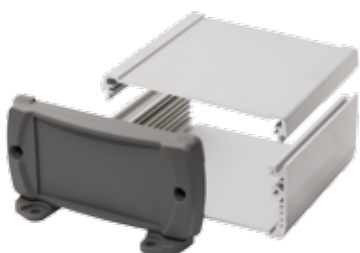
Model	Order no.	A	B	C
ELP 1050-0100 D	83105100.S1	106	52	100
ELP 1050-0150 D	83105150.S1	106	52	150
ELP 1050-0200 D	83105200.S1	106	52	200
ELP 1050-0100 DW	83105100.S2	106	52	100
ELP 1050-0150 DW	83105150.S2	106	52	150
ELP 1050-0200 DW	83105200.S2	106	52	200

Scope of delivery: 1 enclosure profile, 2 plastic end covers, 4 screws, 4 screw covers

Note: C = profile length, special lengths on request.

D = end cover without wall bracket; DW = end cover with wall bracket

Accessories: See following pages.



Enclosure, horizontally-divided, with plastic lids

Model	Order no.	A	B	C
ELPH 1050-0100 D	83056100.S1	106	52	100
ELPH 1050-0150 D	83056150.S1	106	52	150
ELPH 1050-0200 D	83056200.S1	106	52	200
ELPH 1050-0100 DW	83056100.S2	106	52	100
ELPH 1050-0150 DW	83056150.S2	106	52	150
ELPH 1050-0200 DW	83056200.S2	106	52	200

Scope of delivery: 1 enclosure profile (2 parts), 2 plastic end covers, 4 screws, 4 screw covers

Note: C = profile length, special lengths on request.

D = end cover without wall bracket; DW = end cover with wall bracket

Accessories: See following pages.



Enclosure, open on one side, with plastic lids

Model	Order no.	A	B	C
ELPU 1050-0100 D	83057100.S1	106	52	100
ELPU 1050-0150 D	83057150.S1	106	52	150
ELPU 1050-0200 D	83057200.S1	106	52	200
ELPU 1050-0100 DW	83057100.S2	106	52	100
ELPU 1050-0150 DW	83057150.S2	106	52	150
ELPU 1050-0200 DW	83057200.S2	106	52	200

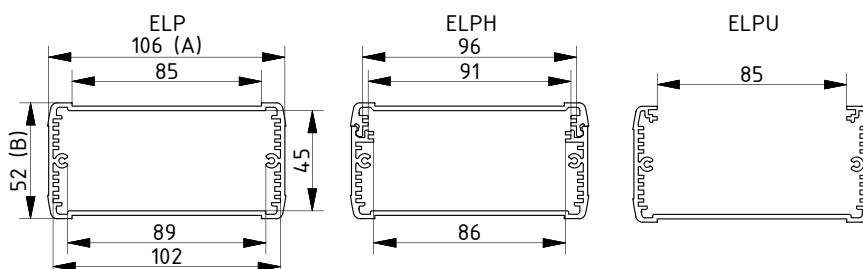
Scope of delivery: 1 enclosure profile, 2 plastic end covers, 4 screws, 4 screw covers

Front panels for ELPD available as accessories

Note: C = profile length, special lengths on request.

D = end cover without wall bracket; DW = end cover with wall bracket

Accessories: See following pages.



Z-2803212

BOS-Ecoline 1240

Closed enclosure with plastic lids

Model	Order no.	A	B	C
ELP 1240-0100 D	83124100.S1	120	42	100
ELP 1240-0150 D	83124150.S1	120	42	150
ELP 1240-0200 D	83124200.S1	120	42	200
ELP 1240-0100 DW	83124100.S2	120	42	100
ELP 1240-0150 DW	83124150.S2	120	42	150
ELP 1240-0200 DW	83124200.S2	120	42	200

Scope of delivery: 1 enclosure profile, 2 plastic end covers, 4 screws, 4 screw covers

Note: C = profile length, special lengths on request.

D = end cover without wall bracket; DW = end cover with wall bracket

Accessories: See following pages.



Enclosure, horizontally-divided, with plastic lids

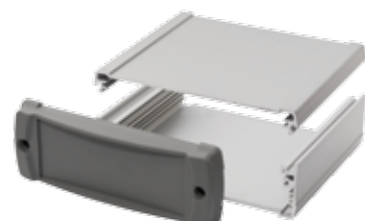
Model	Order no.	A	B	C
ELPH 1240-0100 D	83246100.S1	120	42	100
ELPH 1240-0150 D	83246150.S1	120	42	150
ELPH 1240-0200 D	83246200.S1	120	42	200
ELPH 1240-0100 DW	83246100.S2	120	42	100
ELPH 1240-0150 DW	83246150.S2	120	42	150
ELPH 1240-0200 DW	83246200.S2	120	42	200

Scope of delivery: 1 enclosure profile (2 parts), 2 plastic end covers, 4 screws, 4 screw covers

Note: C = profile length, special lengths on request.

D = end cover without wall bracket; DW = end cover with wall bracket

Accessories: See following pages.



Enclosure, open on one side, with plastic lids

Model	Order no.	A	B	C
ELPU 1240-0100 D	83247100.S1	120	42	100
ELPU 1240-0150 D	83247150.S1	120	42	150
ELPU 1240-0200 D	83247200.S1	120	42	200
ELPU 1240-0100 DW	83247100.S2	120	42	100
ELPU 1240-0150 DW	83247150.S2	120	42	150
ELPU 1240-0200 DW	83247200.S2	120	42	200

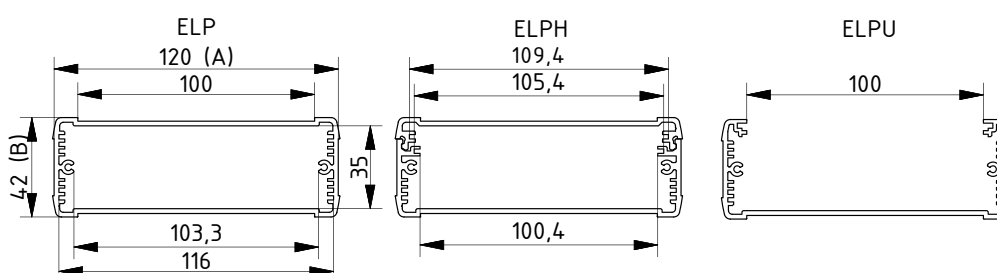
Scope of delivery: 1 enclosure profile, 2 plastic end covers, 4 screws, 4 screw covers

Front panels for ELP available as accessories

Note: C = profile length, special lengths on request.

D = end cover without wall bracket; DW = end cover with wall bracket

Accessories: See following pages.



Z-2803214

BOS-Ecoline accessories



Seals for ingress protection IP 54

Model	Order no.	Note
EL 620 DI	83206210	For ELP(H) 620
EL 840 DI	83208410	For ELP(H) 840
EL 1050 DI	83210510	For ELP(H) 1050
EL 1240 DI	83212410	For ELP(H) 1240

Scope of delivery: 10 seals

Note: Not with ELPU; IP 54 protection with ELPH on request



Front panels, natural-coloured anodised aluminium

Model	Order no.	Note
ELPU 620-0100 FP1,5	83628100	For ELP(U) 620
ELPU 620-0150 FP1,5	83628150	For ELP(U) 620
ELPU 620-0200 FP1,5	83628200	For ELP(U) 620
ELPU 840-0100 FP2	83848100	For ELP(U) 840
ELPU 840-0150 FP2	83848150	For ELP(U) 840
ELPU 840-0200 FP2	83848200	For ELP(U) 840
ELPU 1050-0100 FP2	83058100	For ELP(U) 1050
ELPU 1050-0150 FP2	83058150	For ELP(U) 1050
ELPU 1050-0200 FP2	83058200	For ELP(U) 1050
ELPU 1240-0100 FP2	83248100	For ELP(U) 1240
ELPU 1240-0150 FP2	83248150	For ELP(U) 1240
ELPU 1240-0200 FP2	83248200	For ELP(U) 1240

Scope of delivery: 1 front panel

Application example

of our comprehensive range of services for BOS-Ecoline

**Improvements:**

Special colours / Lacquering / EMC coatings

Mechanical processing:

Cutting / sawing of variable-length profile cuts

**This is only a small selection
of our comprehensive range of services,
with which we manufacture individual
products of excellent quality.**

For more information, please see the introduction to the catalogue.



BOS-Streamline

Ergonomic ABS hand-held enclosure with optional impact protection seal

- 6 basic sizes
- 2 colours
- Flat or inclined design by turning the enclosure half-shells
- Lid optionally with display screen (DIS) or continuous membrane area (F)
- Versions with or without battery compartment
- Optional impact protection/decor seal in 5 colours



Colour	Graphite grey, similar to RAL 7024 or light grey, similar to RAL 7035; special colours on request
Protection class	Up to IP 65/DIN EN 60529, depending on the model
Enclosure material	ABS, decor seal made of TPE; for details see Technical Information

The half-shells can be assembled in parallel or inclined form, which allows variable enclosure designs and dimensions. Smooth areas for fitting different interfaces (e.g. Sub-D connectors etc.) are provided on the front.

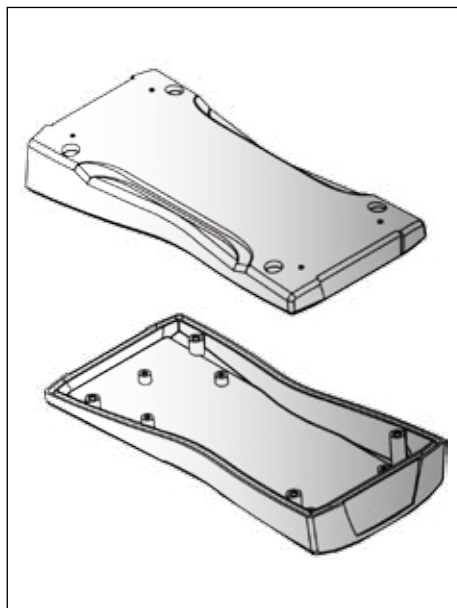
DIS variant: Ergonomic hand-held enclosure with display screen and separate membrane keypad area. The display screen is not printed and can be glued in position by means of the adhesive film (included) which provides IP 65 protection. Printing of the display screen is required in order to cover the adhesive film. Of course, we can supply the enclosures with an individually printed and fitted display screen.

F variant: Ergonomic hand-held enclosure with continuous membrane keypad area. The symmetric geometry also allows optimal crossways use of the enclosure.

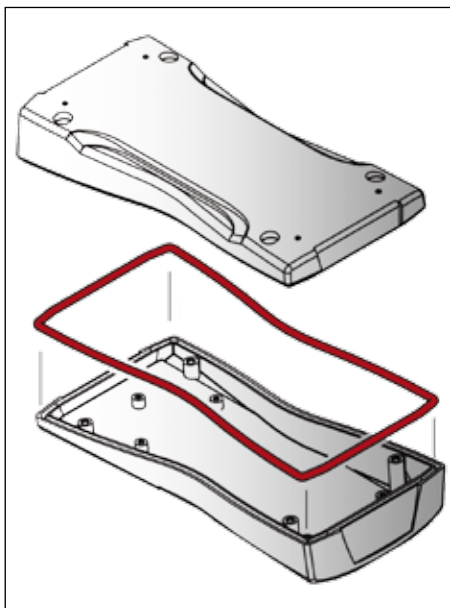
Important: All BS 202 F versions only have protection class IP 54/DIN EN 60529

Details of a mountable tip-up clip and a universal docking station (UDS) can be found in the "General Accessories" and "UDS" chapters.

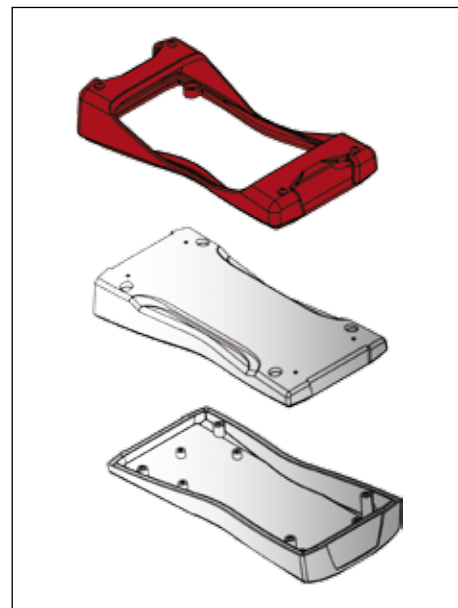




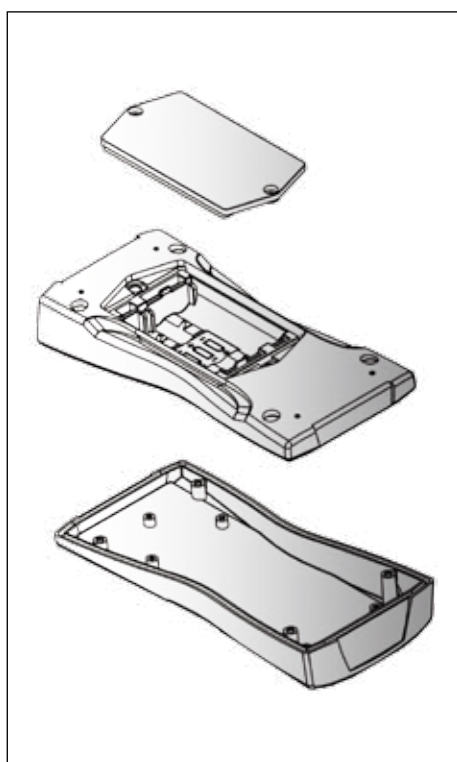
BS .00, without battery compartment, IP 40



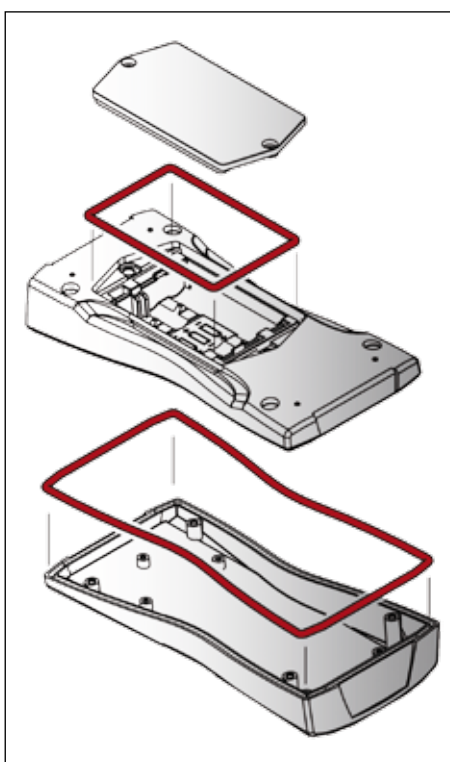
BS .02, without battery compartment, IP 65



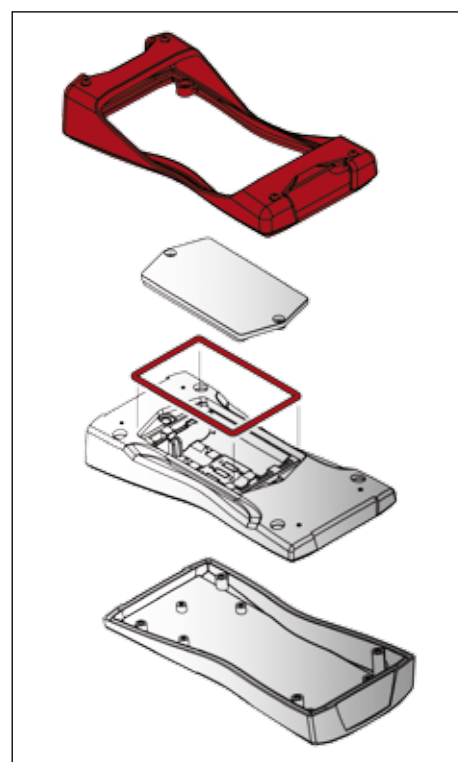
BS .00, without battery compartment, with decor seal, IP 65



BS .01, with battery compartment, IP 40



BS .04, with battery compartment, IP 65



BS .03, with battery compartment, including decor seal, IP 65

Model **Max. possible display sizes**
(for version with display lid)

BS 400	graphic display 1.8"
BS 500	graphic display 2.4"
BS 600	graphic display 2" und 2.2"
BS 700	graphic display 3.5"
BS 800	graphic display 3.5"

126

Model **Possible power supply**
(for version with battery compartment)

BS 400	3 x micro (LR03, R03, AM4, E92, AAA)
BS 500	3 x micro (LR03, R03, AM4, E92, AAA)
BS 600	3 x mignon (LR6, R06, AM3, E91, AA)
BS 700	4 x mignon (LR6, R06, AM3, E91, AA)
BS 800	4 x mignon (LR6, R06, AM3, E91, AA)

BOS-Streamline 2..F

with continuous membrane keypad area

BS 200 F, IP 40 (IP 54), with loop for attaching lanyard

Model	Order no.	A	B	C	Colour
BS 200 F-7024	82200124	79,4	44,1	22,2	Graphite grey
BS 200 F-7035	82200135	79,4	44,1	22,2	Light grey
BS 200 F-S	82200100*	79,4	44,1	22,2	Silver

Scope of delivery: Lid and base, 1 screw

Note: * = Available on request. Upgradable to IP 54 by fitting DI-D.

Accessories: See following pages.



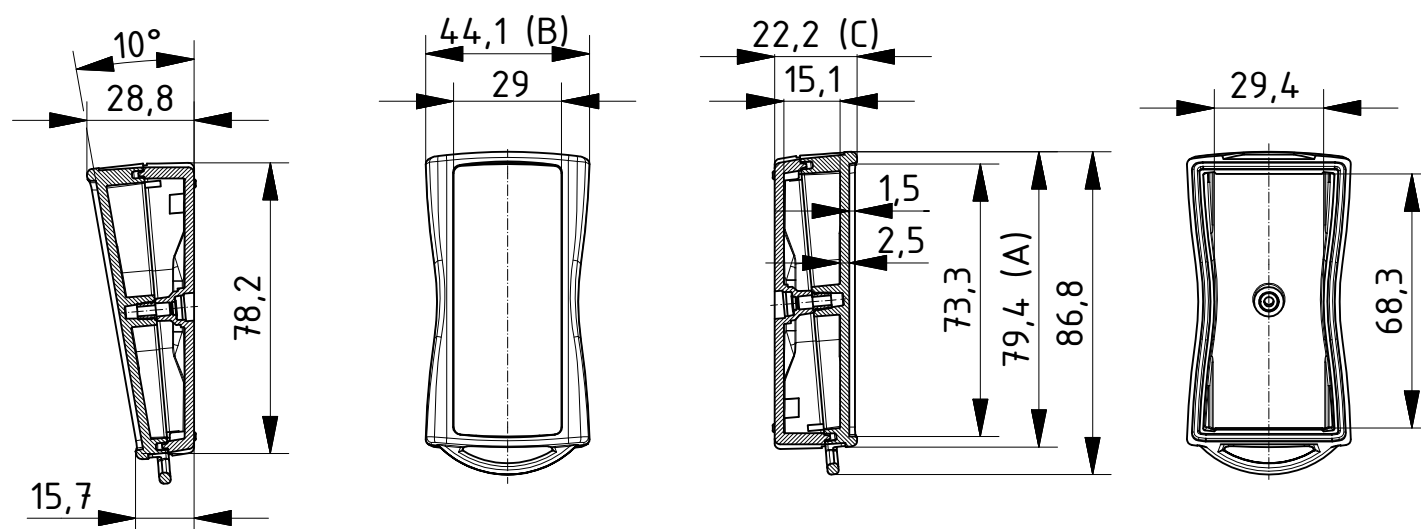
BS 202 F, IP 54, with loop for attaching lanyard

Model	Order no.	A	B	C	Colour
BS 202 F-7024	82202124	79,4	44,1	22,2	Graphite grey
BS 202 F-7035	82202135	79,4	44,1	22,2	Light grey
BS 202 F-S	82202100*	79,4	44,1	22,2	Silver

Scope of delivery: Lid and base including seal, 1 screw

Note: * = Available on request.

Accessories: See following pages.



Z-2803266

Power is supplied by means of button cell connectors fitted directly to the PCB. The central screw is screwed into a threaded insert for multiple opening.

BOS-Streamline 4..F

with continuous membrane keypad area



BS 400 F, IP 40 (IP 65)

Model	Order no.	A	B	C	Colour
BS 400 F-7024	82400124	119,3	64,9	26,5	Graphite grey
BS 400 F-7035	82400135	119,3	64,9	26,5	Light grey
BS 400 F-S	82400100*	119,3	64,9	26,5	Silver

Scope of delivery: Lid and base, 4 screws

Note: * = Available on request. Upgradable to IP 65 by fitting DI-D.

Accessories: See following pages.

BS 402 F, IP 65

Model	Order no.	A	B	C	Colour
BS 402 F-7024	82402124	119,3	64,9	26,5	Graphite grey
BS 402 F-7035	82402135	119,3	64,9	26,5	Light grey
BS 402 F-S	82402100*	119,3	64,9	26,5	Silver

Scope of delivery: Lid and base including seal, 4 screws

Note: * = Available on request.

Accessories: See following pages.



BS 401 with compartment for 3 micro (AAA) batteries, IP 40

Model	Order no.	A	B	C	Colour
BS 401 F-7024	82401124	119,3	64,9	26,5	Graphite grey
BS 401 F-7035	82401135	119,3	64,9	26,5	Light grey
BS 401 F-S	82401100*	119,3	64,9	26,5	Silver

Scope of delivery: Lid and base, 4 screws, battery compartment lid, screws, battery contacts

Note: * = Available on request.

Accessories: See following pages.

BS 403 F with compartment for 3 micro (AAA) batteries, IP 40 (IP 65)

Model	Order no.	A	B	C	Colour
BS 403 F-7024	82403124	119,3	64,9	26,5	Graphite grey
BS 403 F-7035	82403135	119,3	64,9	26,5	Light grey
BS 403 F-S	82403100*	119,3	64,9	26,5	Silver

Scope of delivery: Lid and base, 4 screws, battery compartment lid, battery compartment seal, screws, battery contacts

Note: * = Available on request. Upgradable to IP 65 by fitting DI-D.

Accessories: See following pages.

BOS-Streamline 4..F

with continuous membrane keypad area

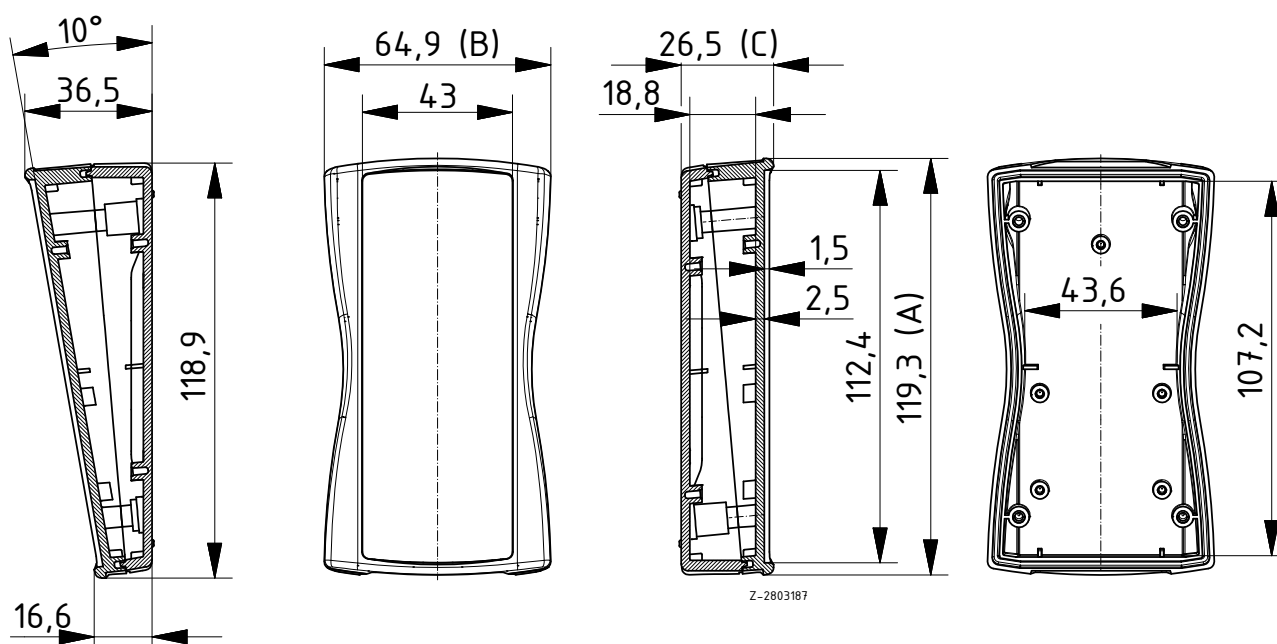
BS 404 F with compartment for 3 micro (AAA) batteries, IP 65

Model	Order no.	A	B	C	Colour
BS 404 F-7024	82404124	119,3	64,9	26,5	Graphite grey
BS 404 F-7035	82404135	119,3	64,9	26,5	Light grey
BS 404 F-S	82404100*	119,3	64,9	26,5	Silver

Scope of delivery: Lid and base including seal, 4 screws, battery compartment lid, battery compartment seal, screws, battery contacts

Note: * = Available on request.

Accessories: See following pages.



BOS-Streamline 4..DIS

with display screen and membrane keypad area



BS 400 DIS without battery compartment, IP 40 (IP 65)

Model	Order no.	A	B	C	Colour
BS 400 DIS-7024	82400224	119,3	64,9	26,5	Graphite grey
BS 400 DIS-7035	82400235	119,3	64,9	26,5	Light grey
BS 400 DIS-S	82400200*	119,3	64,9	26,5	Silver

Scope of delivery: Lid and base, display screen, adhesive film, 4 screws

Note: * = Available on request. Upgradable to IP 65 by fitting DI-D.

Accessories: See following pages.

BS 402 DIS without battery compartment, IP 65

Model	Order no.	A	B	C	Colour
BS 402 DIS-7024	82402224	119,3	64,9	26,5	Graphite grey
BS 402 DIS-7035	82402235	119,3	64,9	26,5	Light grey
BS 402 DIS-S	82402200*	119,3	64,9	26,5	Silver

Scope of delivery: Lid and base including seal, display screen, adhesive film, 4 screws

Note: * = Available on request.

Accessories: See following pages.



BS 401 DIS with compartment for 3 micro (AAA) batteries, IP 40

Model	Order no.	A	B	C	Colour
BS 401 DIS-7024	82401224	119,3	64,9	26,5	Graphite grey
BS 401 DIS-7035	82401235	119,3	64,9	26,5	Light grey
BS 401 DIS-S	82401200*	119,3	64,9	26,5	Silver

Scope of delivery: Lid and base, display screen, adhesive film, 4 screws, battery compartment lid, screws, battery contacts

Note: * = Available on request.

Accessories: See following pages.

BS 403 DIS with compartment for 3 micro (AAA) batteries, IP 40 (IP 65)

Model	Order no.	A	B	C	Colour
BS 403 DIS-7024	82403224	119,3	64,9	26,5	Graphite grey
BS 403 DIS-7035	82403235	119,3	64,9	26,5	Light grey
BS 403 DIS-S	82403200*	119,3	64,9	26,5	Silver

Scope of delivery: Lid and base, display screen, adhesive film, 4 screws, battery compartment lid, battery compartment seal, screws, battery contacts

Note: * = Available on request. Upgradable to IP 65 by fitting DI-D.

Accessories: See following pages.

BOS-Streamline 4..DIS

with display screen and membrane keypad area

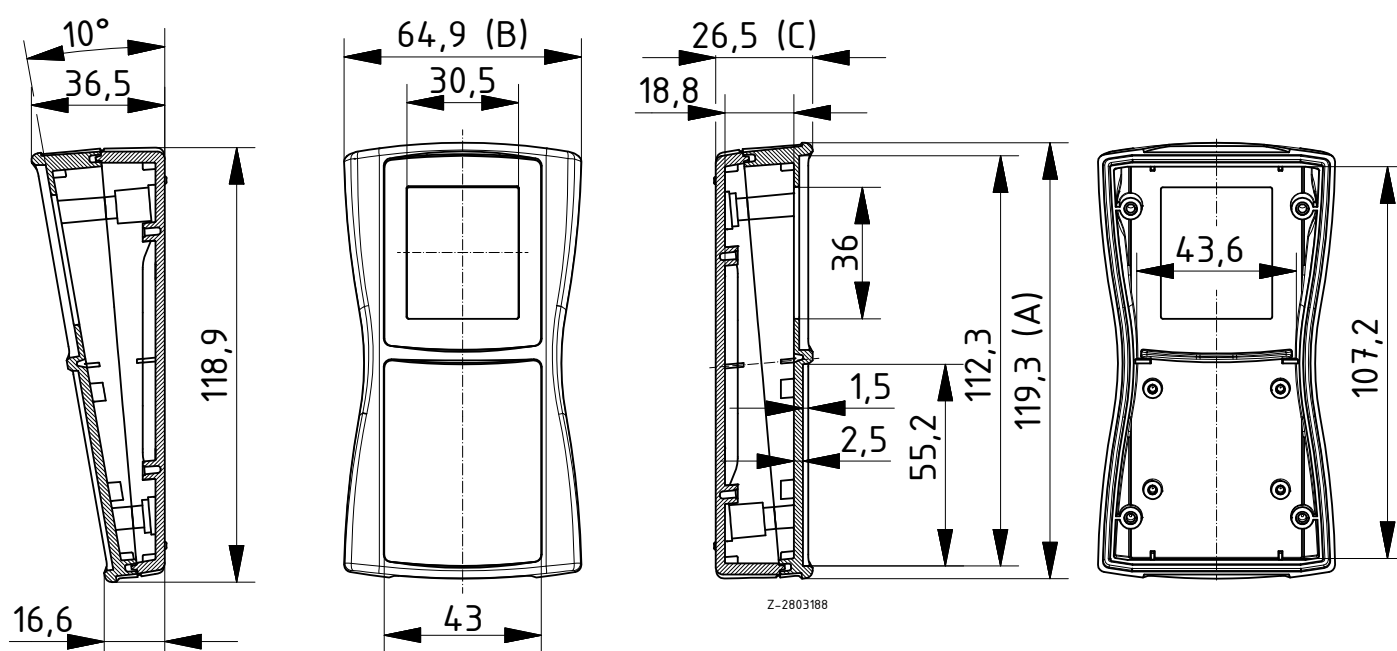
BS 404 DIS with compartment for 3 micro (AAA) batteries, IP 65

Model	Order no.	A	B	C	Colour
BS 404 DIS-7024	82404224	119,3	64,9	26,5	Graphite grey
BS 404 DIS-7035	82404235	119,3	64,9	26,5	Light grey
BS 404 DIS-S	82404200*	119,3	64,9	26,5	Silver

Scope of delivery: Lid and base including seal, display screen, adhesive film, 4 screws, battery compartment lid, battery compartment seal, screws, battery contacts

Note: * = Available on request.

Accessories: See following pages.



BOS-Streamline 5..F

with continuous membrane keypad area



BS 500 F without battery compartment, IP 40 (IP 65)

Model	Order no.	A	B	C	Colour
BS 500 F-7024	82500124	140,3	72,9	31,3	Graphite grey
BS 500 F-7035	82500135	140,3	72,9	31,3	Light grey
BS 500 F-S	82500100*	140,3	72,9	31,3	Silver

Scope of delivery: Lid and base, 4 screws

Note: * = Available on request. Upgradable to IP 65 by fitting DI-D.

Accessories: See following pages.

BS 502 F without battery compartment, IP 65

Model	Order no.	A	B	C	Colour
BS 502 F-7024	82502124	140,3	72,9	31,3	Graphite grey
BS 502 F-7035	82502135	140,3	72,9	31,3	Light grey
BS 502 F-S	82502100*	140,3	72,9	31,3	Silver

Scope of delivery: Lid and base including seal, 4 screws

Note: * = Available on request.

Accessories: See following pages.



BS 501 F with compartment for 3 micro (AAA) batteries, IP 40

Model	Order no.	A	B	C	Colour
BS 501 F-7024	82501124	140,3	72,9	31,3	Graphite grey
BS 501 F-7035	82501135	140,3	72,9	31,3	Light grey
BS 501 F-S	82501100*	140,3	72,9	31,3	Silver

Scope of delivery: Lid and base, 4 screws, battery compartment lid, screws, battery contacts

Note: * = Available on request.

Accessories: See following pages.

BS 503 F with compartment for 3 micro (AAA) batteries, IP 40 (IP 65)

Model	Order no.	A	B	C	Colour
BS 503 F-7024	82503124	140,3	72,9	31,3	Graphite grey
BS 503 F-7035	82503135	140,3	72,9	31,3	Light grey
BS 503 F-S	82503100*	140,3	72,9	31,3	Silver

Scope of delivery: Lid and base, 4 screws, battery compartment lid, battery compartment seal, screws, battery contacts

Note: * = Available on request. Upgradable to IP 65 by fitting DI-D.

Accessories: See following pages.

BOS-Streamline 5..F

with continuous membrane keypad area

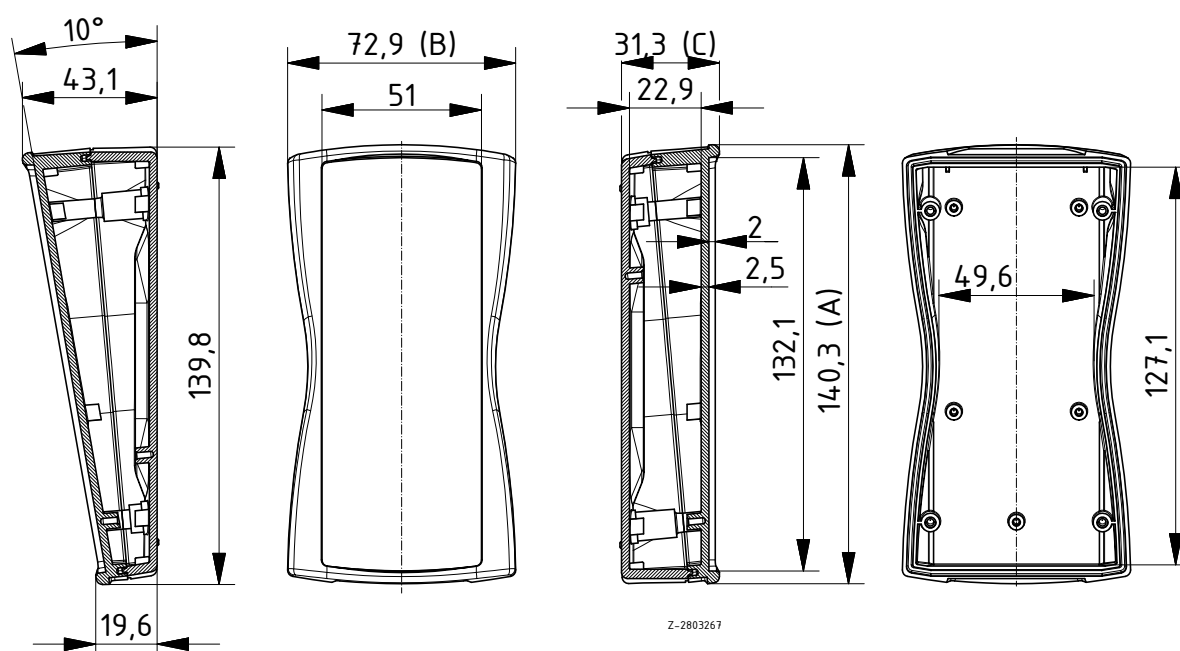
BS 504 F with compartment for 3 micro (AAA) batteries, IP 65

Model	Order no.	A	B	C	Colour
BS 504 F-7024	82504124	140,3	72,9	31,3	Graphite grey
BS 504 F-7035	82504135	140,3	72,9	31,3	Light grey
BS 504 F-S	82504100*	140,3	72,9	31,3	Silver

Scope of delivery: Lid and base including seal, 4 screws, battery compartment lid, battery compartment seal, screws, battery contacts

Note: * = Available on request.

Accessories: See following pages.



BOS-Streamline 5..DIS

with display screen and membrane keypad area



BS 500 DIS without battery compartment, IP 40 (IP 65)

Model	Order no.	A	B	C	Colour
BS 500 DIS-7024	82500224	140,3	72,9	31,3	Graphite grey
BS 500 DIS-7035	82500235	140,3	72,9	31,3	Light grey
BS 500 DIS-S	82500200*	140,3	72,9	31,3	Silver

Scope of delivery: Lid and base, display screen, adhesive film, 4 screws

Note: * = Available on request. Upgradable to IP 65 by fitting DI-D.

Accessories: See following pages.

BS 502 DIS without battery compartment, IP 65

Model	Order no.	A	B	C	Colour
BS 502 DIS-7024	82502224	140,3	72,9	31,3	Graphite grey
BS 502 DIS-7035	82502235	140,3	72,9	31,3	Light grey
BS 502 DIS-S	82502200*	140,3	72,9	31,3	Silver

Scope of delivery: Lid and base including seal, display screen, adhesive film, 4 screws

Note: * = Available on request.

Accessories: See following pages.



BS 501 DIS with compartment for 3 micro (AAA) batteries, IP 40

Model	Order no.	A	B	C	Colour
BS 501 DIS-7024	82501224	140,3	72,9	31,3	Graphite grey
BS 501 DIS-7035	82501235	140,3	72,9	31,3	Light grey
BS 501 DIS-S	82501200*	140,3	72,9	31,3	Silver

Scope of delivery: Lid and base, display screen, adhesive film, 4 screws, battery compartment lid, screws, battery contacts

Note: * = Available on request.

Accessories: See following pages.

BS 503 DIS with compartment for 3 micro (AAA) batteries, IP 40 (IP 65)

Model	Order no.	A	B	C	Colour
BS 503 DIS-7024	82503224	140,3	72,9	31,3	Graphite grey
BS 503 DIS-7035	82503235	140,3	72,9	31,3	Light grey
BS 503 DIS-S	82503200*	140,3	72,9	31,3	Silver

Scope of delivery: Lid and base, display screen, adhesive film, 4 screws, battery compartment lid, battery compartment seal, screws, battery contacts

Note: * = Available on request. Upgradable to IP 65 by fitting DI-D.

Accessories: See following pages.

BOS-Streamline 5..DIS

with display screen and membrane keypad area

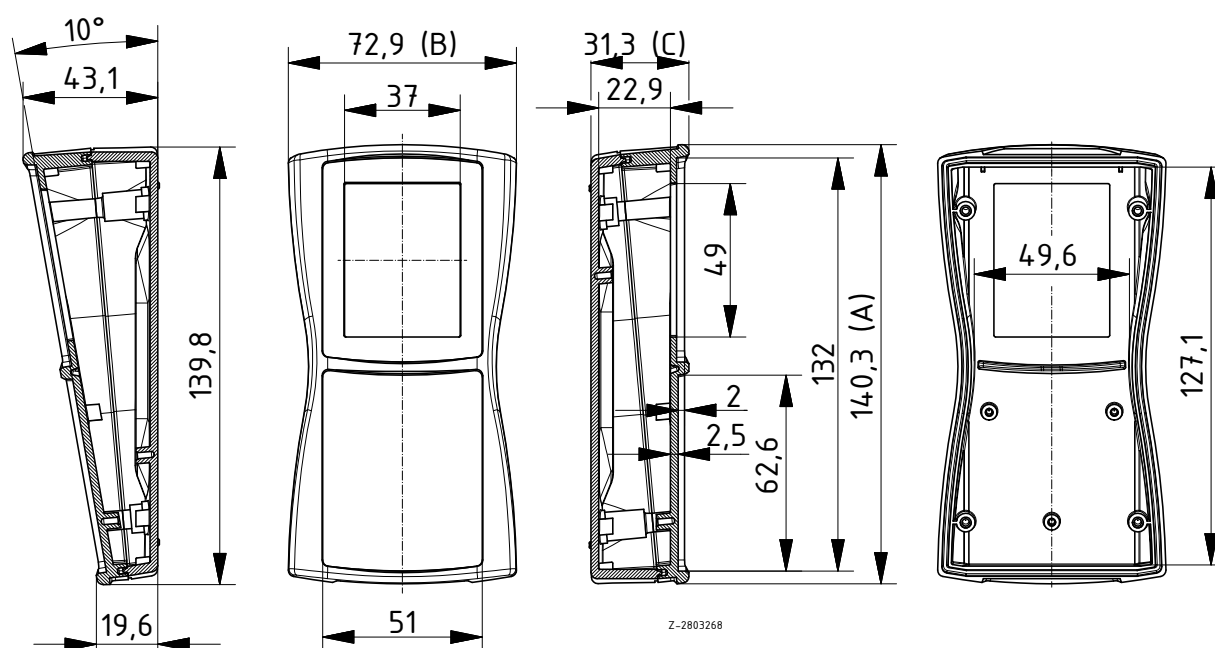
BS 504 DIS with compartment for 3 micro (AAA) batteries, IP 65

Model	Order no.	A	B	C	Colour
BS 504 DIS-7024	82504224	140,3	72,9	31,3	Graphite grey
BS 504 DIS-7035	82504235	140,3	72,9	31,3	Light grey
BS 504 DIS-S	82504200*	140,3	72,9	31,3	Silver

Scope of delivery: Lid and base including seal, display screen, adhesive film, 4 screws, battery compartment lid, battery compartment seal, screws, battery contacts

Note: * = Available on request.

Accessories: See following pages.



BOS-Streamline 6..F

with continuous membrane keypad area



BS 600 F without battery compartment, IP 40 (IP 65)

Model	Order no.	A	B	C	Colour
BS 600 F-7024	82600124	159,4	77,9	33,5	Graphite grey
BS 600 F-7035	82600135	159,4	77,9	33,5	Light grey
BS 600 F-S	82600100*	159,4	77,9	33,5	Silver

Scope of delivery: Lid and base, 4 screws

Note: * = Available on request. Upgradable to IP 65 by fitting DI-D.

Accessories: See following pages.

BS 602 F without battery compartment, IP 65

Model	Order no.	A	B	C	Colour
BS 602 F-7024	82602124	159,4	77,9	33,5	Graphite grey
BS 602 F-7035	82602135	159,4	77,9	33,5	Light grey
BS 602 F-S	82602100*	159,4	77,9	33,5	Silver

Scope of delivery: Lid and base including seal, 4 screws

Note: * = Available on request.

Accessories: See following pages.



BS 601 F with compartment for 3 mignon (AA) batteries, IP 40

Model	Order no.	A	B	C	Colour
BS 601 F-7024	82601124	159,4	77,9	33,5	Graphite grey
BS 601 F-7035	82601135	159,4	77,9	33,5	Light grey
BS 601 F-S	82601100*	159,4	77,9	33,5	Silver

Scope of delivery: Lid and base, 4 screws, battery compartment lid, screws, battery contacts

Note: * = Available on request.

Accessories: See following pages.

BS 603 F with compartment for 3 mignon (AA) batteries, IP 40 (IP 65)

Model	Order no.	A	B	C	Colour
BS 603 F-7024	82603124	159,4	77,9	33,5	Graphite grey
BS 603 F-7035	82603135	159,4	77,9	33,5	Light grey
BS 603 F-S	82603100*	159,4	77,9	33,5	Silver

Scope of delivery: Lid and base, 4 screws, battery compartment lid, battery compartment seal, screws, battery contacts

Note: * = Available on request. Upgradable to IP 65 by fitting DI-D.

Accessories: See following pages.

BOS-Streamline 6..F

with continuous membrane keypad area

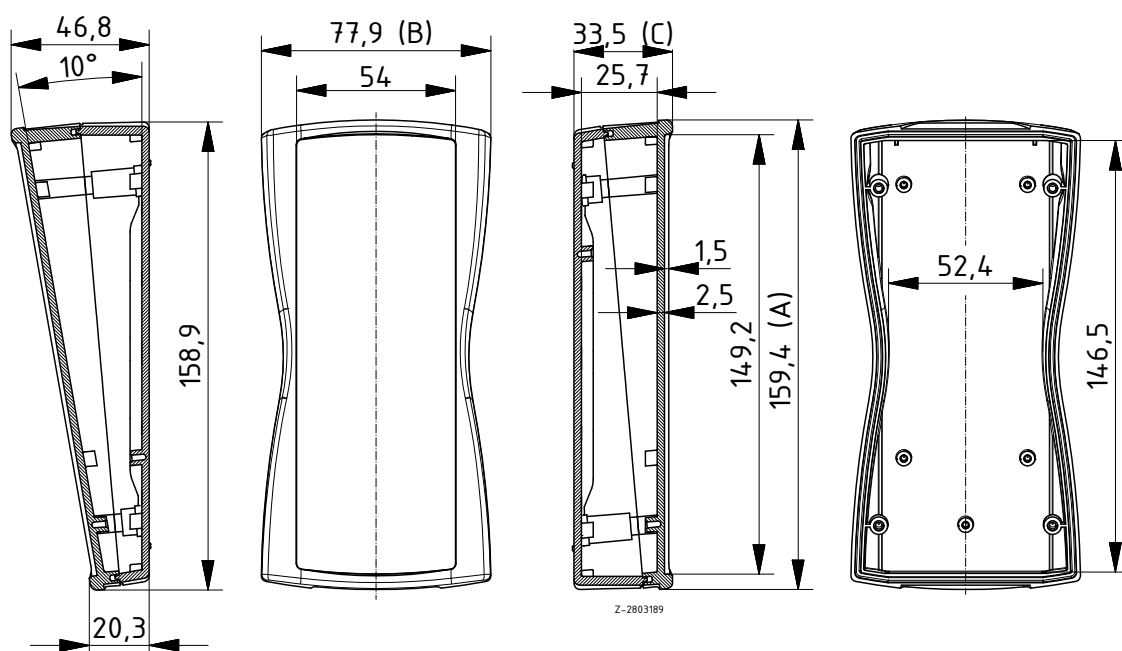
BS 604 F with compartment for 3 mignon (AA) batteries, IP 65

Model	Order no.	A	B	C	Colour
BS 604 F-7024	82604124	159,4	77,9	35,5	Graphite grey
BS 604 F-7035	82604135	159,4	77,9	33,5	Light grey
BS 604 F-S	82604100*	159,4	77,9	33,5	Silver

Scope of delivery: Lid and base including seal, 4 screws, battery compartment lid, battery compartment seal, screws, battery contacts

Note: * = Available on request.

Accessories: See following pages.



BOS-Streamline 6..DIS

with display screen and membrane keypad area



BS 600 DIS without battery compartment, IP 40 (IP 65)

Model	Order no.	A	B	C	Colour
BS 600 DIS-7024	82600224	159,4	77,9	33,5	Graphite grey
BS 600 DIS-7035	82600235	159,4	77,9	33,5	Light grey
BS 600 DIS-S	82600200*	159,4	77,9	33,5	Silver

Scope of delivery: Lid and base, display screen, adhesive film, 4 screws

Note: * = Available on request. Upgradable to IP 65 by fitting DI-D.

Accessories: See following pages.

BS 602 DIS without battery compartment, IP 65

Model	Order no.	A	B	C	Colour
BS 602 DIS-7024	82602224	159,4	77,9	33,5	Graphite grey
BS 602 DIS-7035	82602235	159,4	77,9	33,5	Light grey
BS 602 DIS-S	82602200*	159,4	77,9	33,5	Silver

Scope of delivery: Lid and base including seal, display screen, adhesive film, 4 screws

Note: * = Available on request.

Accessories: See following pages.



BS 601 DIS with compartment for 3 mignon (AA) batteries, IP 40

Model	Order no.	A	B	C	Colour
BS 601 DIS-7024	82601224	159,4	77,9	33,5	Graphite grey
BS 601 DIS-7035	82601235	159,4	77,9	33,5	Light grey
BS 601 DIS-S	82601200*	159,4	77,9	33,5	Silver

Scope of delivery: Lid and base, display screen, adhesive film, 4 screws, battery compartment lid, screws, battery contacts

Note: * = Available on request.

Accessories: See following pages.

BS 603 DIS with compartment for 3 mignon (AA) batteries, IP 40 (IP 65)

Model	Order no.	A	B	C	Colour
BS 603 DIS-7024	82603224	159,4	77,9	33,5	Graphite grey
BS 603 DIS-7035	82603235	159,4	77,9	33,5	Light grey
BS 603 DIS-S	82603200*	159,4	77,9	33,5	Silver

Scope of delivery: Lid and base, display screen, adhesive film, 4 screws, battery compartment lid, battery compartment seal, screws, battery contacts

Note: * = Available on request. Upgradable to IP 65 by fitting DI-D.

Accessories: See following pages.

BOS-Streamline 6..DIS

with display screen and membrane keypad area

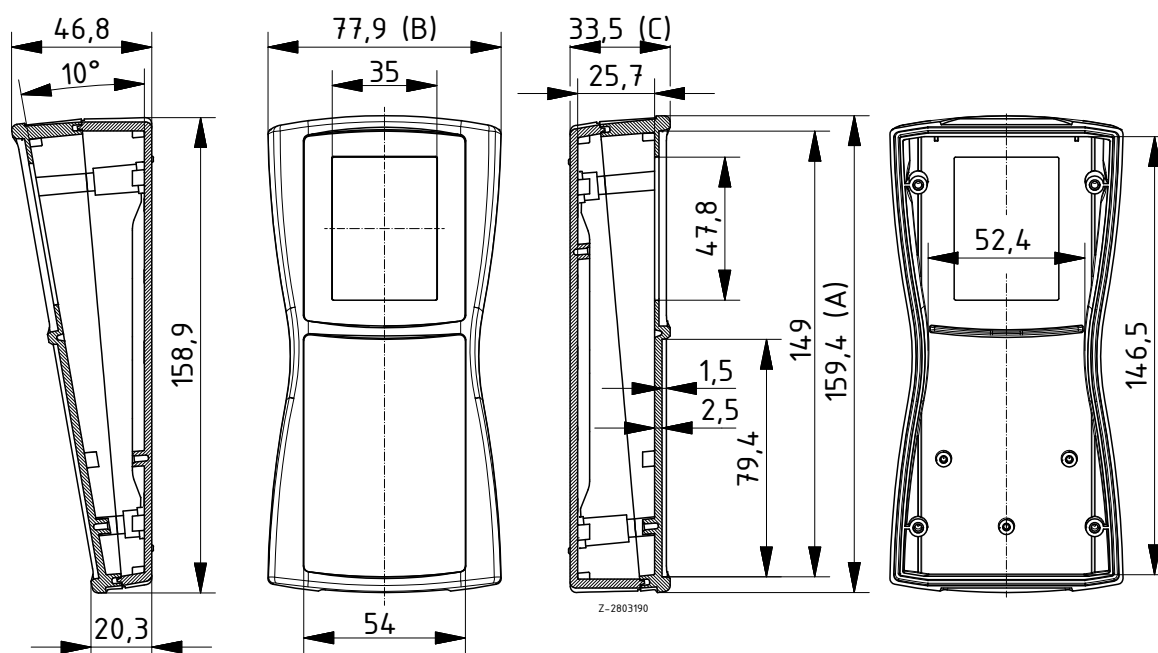
BS 604 DIS with compartment for 3 mignon (AA) batteries, IP 65

Model	Order no.	A	B	C	Colour
BS 604 DIS-7024	82604224	159,4	77,9	33,5	Graphite grey
BS 604 DIS-7035	82604235	159,4	77,9	33,5	Light grey
BS 604 DIS-S	82604200*	159,4	77,9	33,5	Silver

Scope of delivery: Lid and base including seal, display screen, adhesive film, 4 screws, battery compartment lid, battery compartment seal, screws, battery contacts

Note: * = Available on request.

Accessories: See following pages.



BOS-Streamline 7..F

with continuous membrane keypad area



BS 700 F without battery compartment, IP 40 (IP 65)

Model	Order no.	A	B	C	Colour
BS 700 F-7024	82700124	184,3	93	35,4	Graphite grey
BS 700 F-7035	82700135	184,3	93	35,4	Light grey
BS 700 F-S	82700100*	184,3	93	35,4	Silver

Scope of delivery: Lid and base, 4 screws

Note: * = Available on request. Upgradable to IP 65 by fitting DI-D.

Accessories: See following pages.

BS 702 F without battery compartment, IP 65

Model	Order no.	A	B	C	Colour
BS 702 F-7024	82702124	184,3	93	35,4	Graphite grey
BS 702 F-7035	82702135	184,3	93	35,4	Light grey
BS 702 F-S	82702100*	184,3	93	35,4	Silver

Scope of delivery: Lid and base including seal, 4 screws

Note: * = Available on request.

Accessories: See following pages.



BS 701 F with compartment for 4 mignon (AA) batteries, IP 40

Model	Order no.	A	B	C	Colour
BS 701 F-7024	82701124	184,3	93	35,4	Graphite grey
BS 701 F-7035	82701135	184,3	93	35,4	Light grey
BS 701 F-S	82701100*	184,3	93	35,4	Silver

Scope of delivery: Lid and base, 4 screws, battery compartment lid, screws, battery contacts

Note: * = Available on request.

Accessories: See following pages.

BS 703 F with compartment for 4 mignon (AA) batteries, IP 40 (IP 65)

Model	Order no.	A	B	C	Colour
BS 703 F-7024	82703124	184,3	93	35,4	Graphite grey
BS 703 F-7035	82703135	184,3	93	35,4	Light grey
BS 703 F-S	82703100*	184,3	93	35,4	Silver

Scope of delivery: Lid and base, 4 screws, battery compartment lid, battery compartment seal, screws, battery contacts

Note: * = Available on request. Upgradable to IP 65 by fitting DI-D.

Accessories: See following pages.

BOS-Streamline 7..F

with continuous membrane keypad area

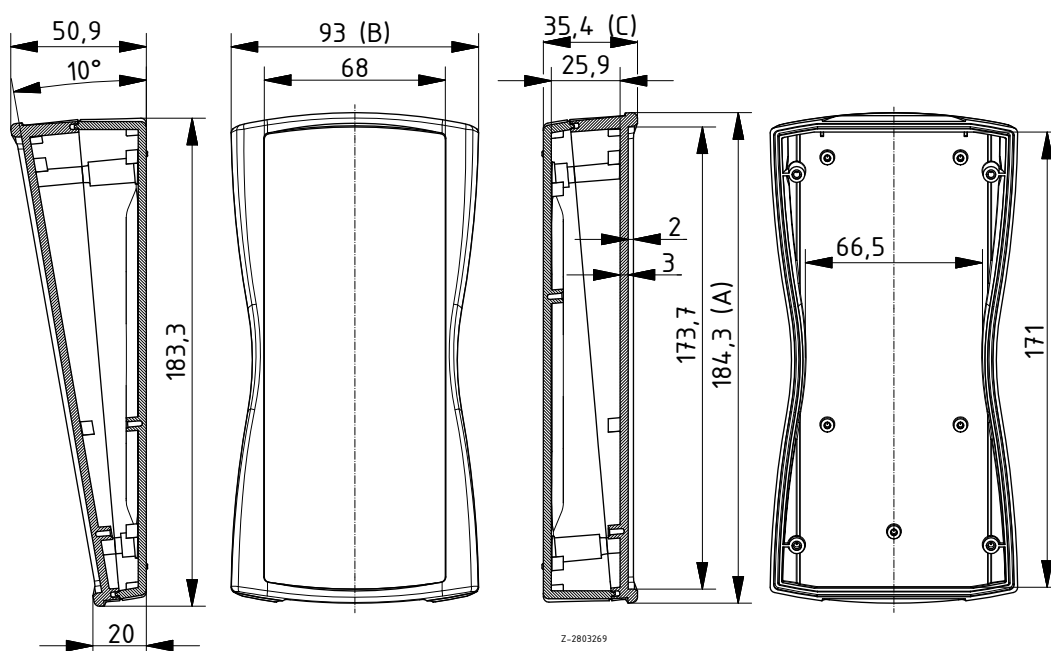
BS 704 F with compartment for 4 mignon (AA) batteries, IP 65

Model	Order no.	A	B	C	Colour
BS 704 F-7024	82704124	184,3	93	35,4	Graphite grey
BS 704 F-7035	82704135	184,3	93	35,4	Light grey
BS 704 F-S	82704100*	184,3	93	35,4	Silver

Scope of delivery: Lid and base including seal, 4 screws, battery compartment lid, battery compartment seal, screws, battery contacts

Note: * = Available on request.

Accessories: See following pages.



BOS-Streamline 7..DIS

with display screen and membrane keypad area



BS 700 DIS without battery compartment, IP 40 (IP 65)

Model	Order no.	A	B	C	Colour
BS 700 DIS-7024	82700224	184,3	93	35,4	Graphite grey
BS 700 DIS-7035	82700235	184,3	93	35,4	Light grey
BS 700 DIS-S	82700200*	184,3	93	35,4	Silver

Scope of delivery: Lid and base, display screen, adhesive film, 4 screws

Note: * = Available on request. Upgradable to IP 65 by fitting DI-D.

Accessories: See following pages.

BS 702 DIS without battery compartment, IP 65

Model	Order no.	A	B	C	Colour
BS 702 DIS-7024	82702224	184,3	93	35,4	Graphite grey
BS 702 DIS-7035	82702235	184,3	93	35,4	Light grey
BS 702 DIS-S	82702200*	184,3	93	35,4	Silver

Scope of delivery: Lid and base including seal, display screen, adhesive film, 4 screws

Note: * = Available on request.

Accessories: See following pages.



BS 701 DIS with compartment for 4 mignon (AA) batteries, IP 40

Model	Order no.	A	B	C	Colour
BS 701 DIS-7024	82701224	184,3	93	35,4	Graphite grey
BS 701 DIS-7035	82701235	184,3	93	35,4	Light grey
BS 701 DIS-S	82701200*	184,3	93	35,4	Silver

Scope of delivery: Lid and base, display screen, adhesive film, 4 screws, battery compartment lid, screws, battery contacts

Note: * = Available on request.

Accessories: See following pages.

BS 703 DIS with compartment for 4 mignon (AA) batteries, IP 40 (IP 65)

Model	Order no.	A	B	C	Colour
BS 703 DIS-7024	82703224	184,3	93	35,4	Graphite grey
BS 703 DIS-7035	82703235	184,3	93	35,4	Light grey
BS 703 DIS-S	82703200*	184,3	93	35,4	Silver

Scope of delivery: Lid and base, display screen, adhesive film, 4 screws, battery compartment lid, battery compartment seal, screws, battery contacts

Note: * = Available on request. Upgradable to IP 65 by fitting DI-D.

Accessories: See following pages.

BOS-Streamline 7..DIS

with display screen and membrane keypad area

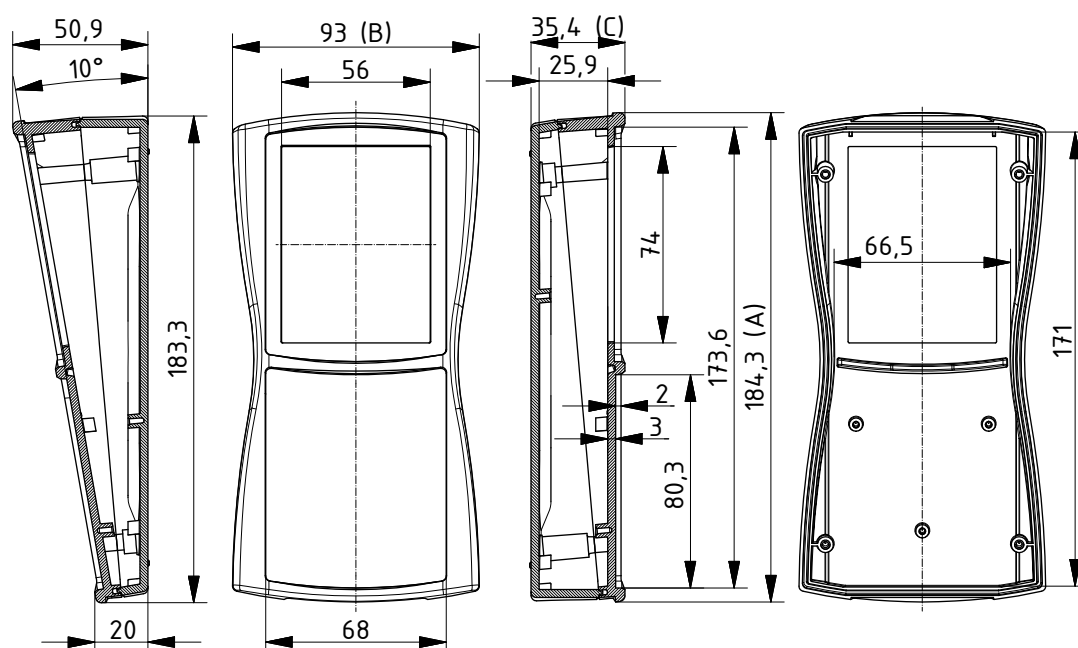
BS 704 DIS with compartment for 4 mignon (AA) batteries, IP 65

Model	Order no.	A	B	C	Colour
BS 704 DIS-7024	82704224	184,3	93	35,4	Graphite grey
BS 704 DIS-7035	82704235	184,3	93	35,4	Light grey
BS 704 DIS-S	82704200*	184,3	93	35,4	Silver

Scope of delivery: Lid and base including seal, display screen, adhesive film, 4 screws, battery compartment lid, battery compartment seal, screws, battery contacts

Note: * = Available on request.

Accessories: See following pages.



Z-2803270

BOS-Streamline 8..F

with continuous membrane keypad area



BS 800 F without battery compartment, IP 40 (IP 65)

Model	Order no.	A	B	C	Colour
BS 800 F-7024	82800124	209,3	98	34,8	Graphite grey
BS 800 F-7035	82800135	209,3	98	34,8	Light grey
BS 800 F-S	82800100*	209,3	98	34,8	Silver

Scope of delivery: Lid and base, 4 screws

Note: * = Available on request. Upgradable to IP 65 by fitting DI-D.

Accessories: See following pages.

BS 802 F without battery compartment, IP 65

Model	Order no.	A	B	C	Colour
BS 802 F-7024	82802124	209,3	98	34,8	Graphite grey
BS 802 F-7035	82802135	209,3	98	34,8	Light grey
BS 802 F-S	82802100*	209,3	98	34,8	Silver

Scope of delivery: Lid and base including seal, 4 screws

Note: * = Available on request.

Accessories: See following pages.



BS 801 F with compartment for 4 mignon (AA) batteries, IP 40

Model	Order no.	A	B	C	Colour
BS 801 F-7024	82801124	209,3	98	34,8	Graphite grey
BS 801 F-7035	82801135	209,3	98	34,8	Light grey
BS 801 F-S	82801100*	209,3	98	34,8	Silver

Scope of delivery: Lid and base, 4 screws, battery compartment lid, screws, battery contacts

Note: * = Available on request.

Accessories: See following pages.

BS 803 F with compartment for 4 mignon (AA) batteries, IP 40 (IP 65)

Model	Order no.	A	B	C	Colour
BS 803 F-7024	82803124	209,3	98	34,8	Graphite grey
BS 803 F-7035	82803135	209,3	98	34,8	Light grey
BS 803 F-S	82803100*	209,3	98	34,8	Silver

Scope of delivery: Lid and base, 4 screws, battery compartment lid, battery compartment seal, screws, battery contacts

Note: * = Available on request. Upgradable to IP 65 by fitting DI-D.

Accessories: See following pages.

BOS-Streamline 8..F

with continuous membrane keypad area

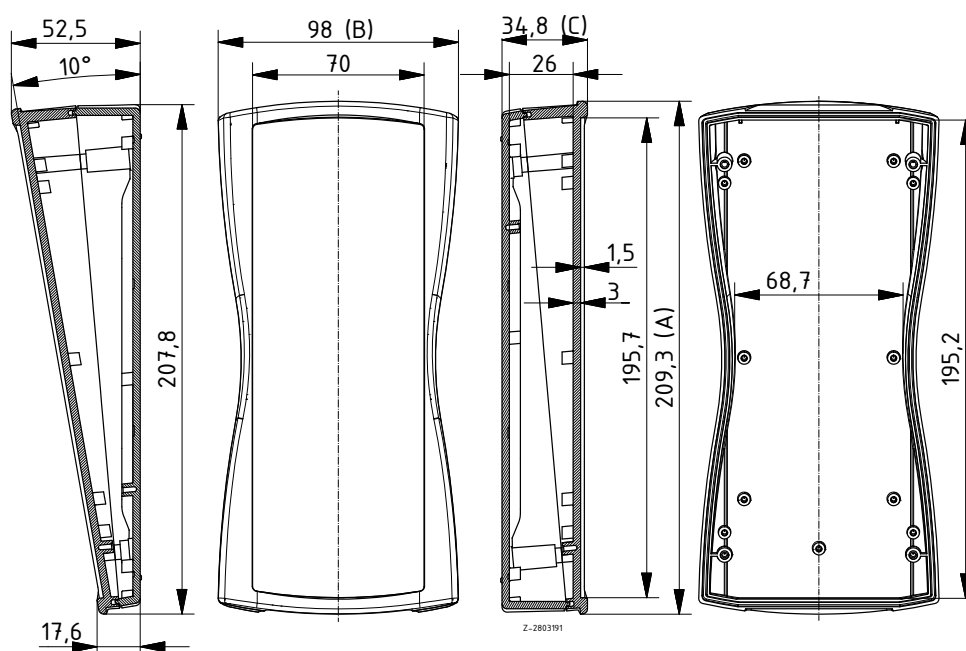
BS 804 F with compartment for 4 mignon (AA) batteries, IP 65

Model	Order no.	A	B	C	Colour
BS 804 F-7024	82804124	209,3	98	34,8	Graphite grey
BS 804 F-7035	82804135	209,3	98	34,8	Light grey
BS 804 F-S	82804100*	209,3	98	34,8	Silver

Scope of delivery: Lid and base including seal, 4 screws, battery compartment lid, battery compartment seal, screws, battery contacts

Note: * = Available on request.

Accessories: See following pages.



BOS-Streamline 8..DIS

with display screen and membrane keypad area



BS 800 DIS without battery compartment, IP 40 (IP 65)

Model	Order no.	A	B	C	Colour
BS 800 DIS-7024	82800224	209,3	98	34,8	Graphite grey
BS 800 DIS-7035	82800235	209,3	98	34,8	Light grey
BS 800 DIS-S	82800200*	209,3	98	34,8	Silver

Scope of delivery: Lid and base, display screen, adhesive film, 4 screws

Note: * = Available on request. Upgradable to IP 65 by fitting DI-D.

Accessories: See following pages.

BS 802 DIS without battery compartment, IP 65

Model	Order no.	A	B	C	Colour
BS 802 DIS-7024	82802224	209,3	98	34,8	Graphite grey
BS 802 DIS-7035	82802235	209,3	98	34,8	Light grey
BS 802 DIS-S	82802200*	209,3	98	34,8	Silver

Scope of delivery: Lid and base including seal, display screen, adhesive film, 4 screws

Note: * = Available on request.

Accessories: See following pages.



BS 801 DIS with compartment for 4 mignon (AA) batteries, IP 40

Model	Order no.	A	B	C	Colour
BS 801 DIS-7024	82801224	209,3	98	34,8	Graphite grey
BS 801 DIS-7035	82801235	209,3	98	34,8	Light grey
BS 801 DIS-S	82801200*	209,3	98	34,8	Silver

Scope of delivery: Lid and base, display screen, adhesive film, 4 screws, battery compartment lid, screws, battery contacts

Note: * = Available on request.

Accessories: See following pages.

BS 803 DIS with compartment for 4 mignon (AA) batteries, IP 40 (IP 65)

Model	Order no.	A	B	C	Colour
BS 803 DIS-7024	82803224	209,3	98	34,8	Graphite grey
BS 803 DIS-7035	82803235	209,3	98	34,8	Light grey
BS 803 DIS-S	82803200*	209,3	98	34,8	Silver

Scope of delivery: Lid and base, display screen, adhesive film, 4 screws, battery compartment lid, battery compartment seal, screws, battery contacts

Note: * = Available on request. Upgradable to IP 65 by fitting DI-D.

Accessories: See following pages.

BOS-Streamline 8..DIS

with display screen and membrane keypad area

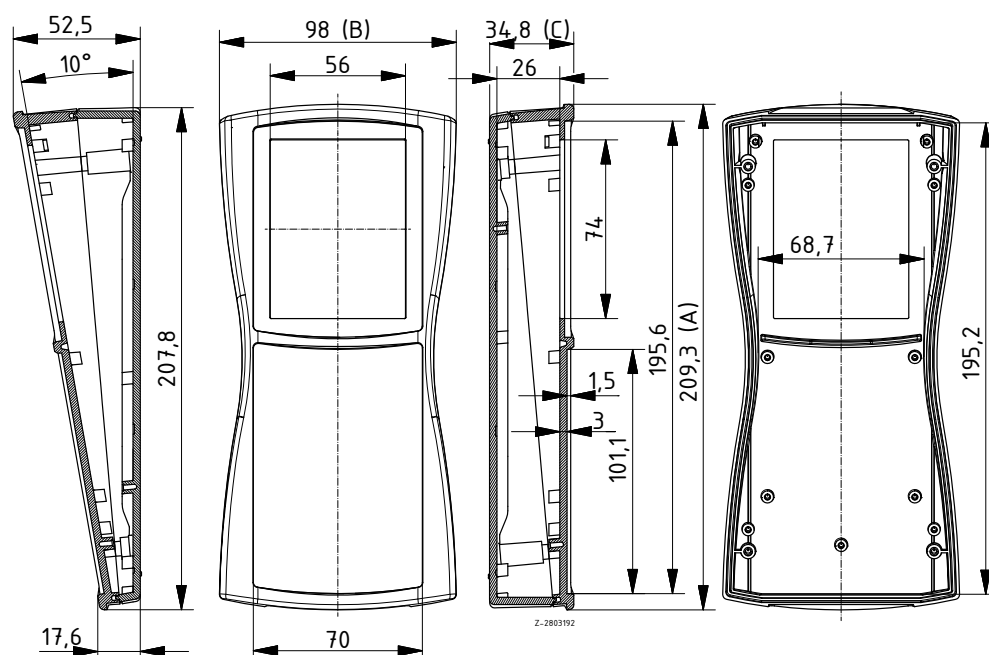
BS 804 DIS with compartment for 4 mignon (AA) batteries, IP 65

Model	Order no.	A	B	C	Colour
BS 804 DIS-7024	82804224	209,3	98	34,8	Graphite grey
BS 804 DIS-7035	82804235	209,3	98	34,8	Light grey
BS 804 DIS-S	82804200*	209,3	98	34,8	Silver

Scope of delivery: Lid and base including seal, display screen, adhesive film, 4 screws, battery compartment lid, battery compartment seal, screws, battery contacts

Note: * = Available on request.

Accessories: See following pages.



BOS-Streamline accessories



Decor seals

Model	Order no.	Colour	Note
BS 200 DI-D-1003	82821003	Signal yellow	For BS 200
BS 200 DI-D-3001	82823001	Signal red	For BS 200
BS 200 DI-D-5005	82825005	Signal blue	For BS 200
BS 200 DI-D-6032	82826032	Signal green	For BS 200
BS 200 DI-D-7024	82827024	Graphite grey	For BS 200
BS 400 DI-D-1003	82841003	Signal yellow	For BS 400
BS 400 DI-D-3001	82843001	Signal red	For BS 400
BS 400 DI-D-5005	82845005	Signal blue	For BS 400
BS 400 DI-D-6032	82846032	Signal green	For BS 400
BS 400 DI-D-7024	82847024	Graphite grey	For BS 400
BS 500 DI-D-1003	82851003	Signal yellow	For BS 500
BS 500 DI-D-3001	82853001	Signal red	For BS 500
BS 500 DI-D-5005	82855005	Signal blue	For BS 500
BS 500 DI-D-6032	82856032	Signal green	For BS 500
BS 500 DI-D-7024	82857024	Graphite grey	For BS 500
BS 600 DI-D-1003	82861003	Signal yellow	For BS 600
BS 600 DI-D-3001	82863001	Signal red	For BS 600
BS 600 DI-D-5005	82865005	Signal blue	For BS 600
BS 600 DI-D-6032	82866032	Signal green	For BS 600
BS 600 DI-D-7024	82867024	Graphite grey	For BS 600
BS 700 DI-D-1003	82871003	Signal yellow	For BS 700
BS 700 DI-D-3001	82873001	Signal red	For BS 700
BS 700 DI-D-5005	82875005	Signal blue	For BS 700
BS 700 DI-D-6032	82876032	Signal green	For BS 700
BS 700 DI-D-7024	82877024	Graphite grey	For BS 700
BS 800 DI-D-1003	82881003	Signal yellow	For BS 800
BS 800 DI-D-3001	82883001	Signal red	For BS 800
BS 800 DI-D-5005	82885005	Signal blue	For BS 800
BS 800 DI-D-6032	82886032	Signal green	For BS 800
BS 800 DI-D-7024	82887024	Graphite grey	For BS 800

Scope of delivery: Decor seal, 4 screws

Note: Not for use with BS .02 and BS .04.



Decor seals for loop for attaching lanyard

Model	Order no.	Colour	Note
BS 500 DI-D-1003-LO	82851103	Signal yellow	For BS 500
BS 500 DI-D-3001-LO	82853101	Signal red	For BS 500
BS 500 DI-D-5005-LO	82855105	Signal blue	For BS 500
BS 500 DI-D-6032-LO	82856132	Signal green	For BS 500
BS 500 DI-D-7024-LO	82857124	Graphite grey	For BS 500
BS 500 DI-D-1003-LU	82851203	Signal yellow	For BS 500
BS 500 DI-D-3001-LU	82853201	Signal red	For BS 500
BS 500 DI-D-5005-LU	82855205	Signal blue	For BS 500
BS 500 DI-D-6032-LU	82856232	Signal green	For BS 500
BS 500 DI-D-7024-LU	82857224	Graphite grey	For BS 500

Scope of delivery: Seal with bracket up or down, 4 screws

Note: LO = bracket up, LU = bracket down. Not for use with BS .02 and BS .04.

BOS-Streamline accessories

Screw covers for enclosure screws

Model	Order no.	Colour
BS SA-7024	82800011	Graphite grey
BS SA-7035	82800010	Light grey

Scope of delivery: 20 pieces

Note: The screw covers are not required if decor seal DI-D is fitted.



Screw-on lanyard loop

Model	Order no.	Colour
OE-7035	59907035	Light grey
OE-7024	59907024	Graphite grey
OE-7038	59907038	Agate grey
OE-9005	59909005	Black

Scope of delivery: 5 screw-on lanyard loops including fixing material

Note: Enclosure must be processed.





BOPLA-Arteb

The special feature of this hand-held enclosure series is its high level of flexibility

- 6 sizes
- End caps in six colours
- Caps made of infrared-permissible material
- Various battery compartments
- Definable access protection
- Versions with display cut-out or continuous membrane keypad area
- Comprehensive range of accessories



Colour	Agate grey, similar to RAL 7038; special colours on request.
Protection class	IP 40/DIN EN 60529; ART 225 to 865: use seal set to upgrade to IP 65/DIN EN 60529
Enclosure material	ABS, seal made of TPE; for details see Technical Information

The top and bottom sides have different designs and can be used alternatively as an operating and display surface. Depending on the size, snap-on caps are available as standard in 6 different colours and an infrared-permissive variant. With sizes 555, 655 and 865, definable access protection can be achieved by use of the cap: tool opening (standard scope of delivery), push-button or blocking. The blocking snap lock provides access protection; fast, easy battery changing can take place by means of the push-button. These cap functions can be set separately for top and bottom.

Power supply to the electronics is variable according to the size: 2-4 micro batteries, 2-6 mignon batteries and 1-2 9V block batteries. The batteries are inserted behind the caps. This design permits standard ingress protection IP 40 to be increased to IP 65 if necessary (not with BOPLA-Arteb 115). Versions with fitted battery compartments BE 30 (9V block or 2x mignon batteries) or BE 60 (2x 9V block or 4x mignon batteries) are available on request for sizes 555, 655 and 865. Ingress protection cannot be increased to IP 65 for the BE versions.

On the cap sides a plug-in groove is provided between the base and the lid for front panels or mounting plates. For example, this makes it possible to use adapter connectors during field use with IP 65 protection. Up to 3 installation levels are available in the enclosure for circuit boards or mounting panels.

All sizes are available with a continuous membrane keypad area; 4 sizes additionally with display opening including a non-scratch window and stick-on frame which also contains mounting bosses for standard displays. The display screens can be adapted to the display area by means of printing.

Depending on the model, for dismantling the enclosure parts we recommend using our dismantling tool.





Welcome to BOPLA City!

Enclosure	Continuous membrane keypad area	Display opening	Ingress protection IP 40	Upgradable to IP 65	Possible power supply
ART 115	x	—	x	—	2x micro (LR03, R03, AM4, E92, AAA)
ART 225	x	—	x	x	2x micro (LR03, R03, AM4, E92, AAA)
ART 335	x	x	x	x	4x micro (LR03, R03, AM4, E92, AAA) 2x or 3x mignon (LR6, R06, AM3, E91, AA) 1x 9V block battery (6LR61, 6AM6, 522)
ART 555	x	x	x	x	2x or 3x mignon (LR6, R06, AM3, E91, AA) 1x or 2x 9V block battery (6LR61, 6AM6, 522)
ART 655	x	x	x	x	2x, 4x or 6x mignon (LR6, R06, AM3, E91, AA) 1x or 2x 9V block battery (6LR61, 6AM6, 522)
ART 865	x	x	x	x	2x, 4x or 6x mignon (LR6, R06, AM3, E91, AA) 1x or 2x 9V block battery (6LR61, 6AM6, 522)

For data and power transfer, the Universal Docking Station chapter contains details of enclosures in two sizes, suitable for all Arteb enclosures of size 225 and higher.

BOPLA-Arteb 115

Enclosure with continuous membrane keypad area

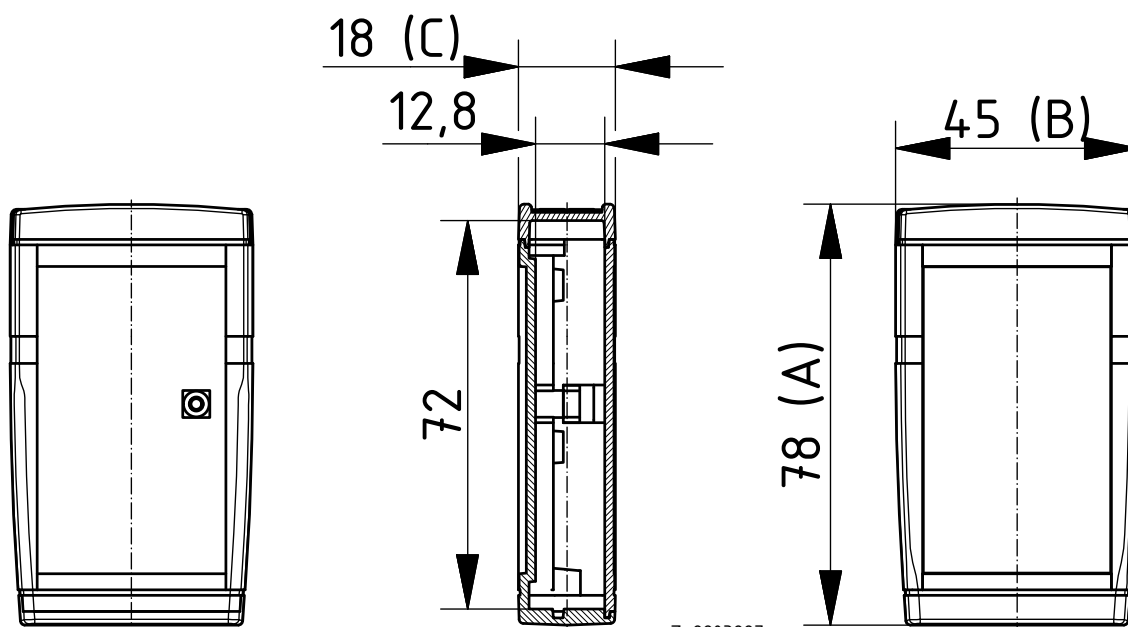
Model	Order no.	A	B	C	Note
ART 115 F	34111511	78	45	18	Membrane keypad area 34.8 x 56.9 x 1.5 mm deep

Scope of delivery: Lid and base, screw cover, screw

PU = 5 pieces

Note: Please order caps separately. See following pages for accessories.

If you wish to leave the enclosure completely accessible, there is no need for the screws, and only the screw covers provide a flush close for the base.



Z-2803227

BOPLA-Arteb 225

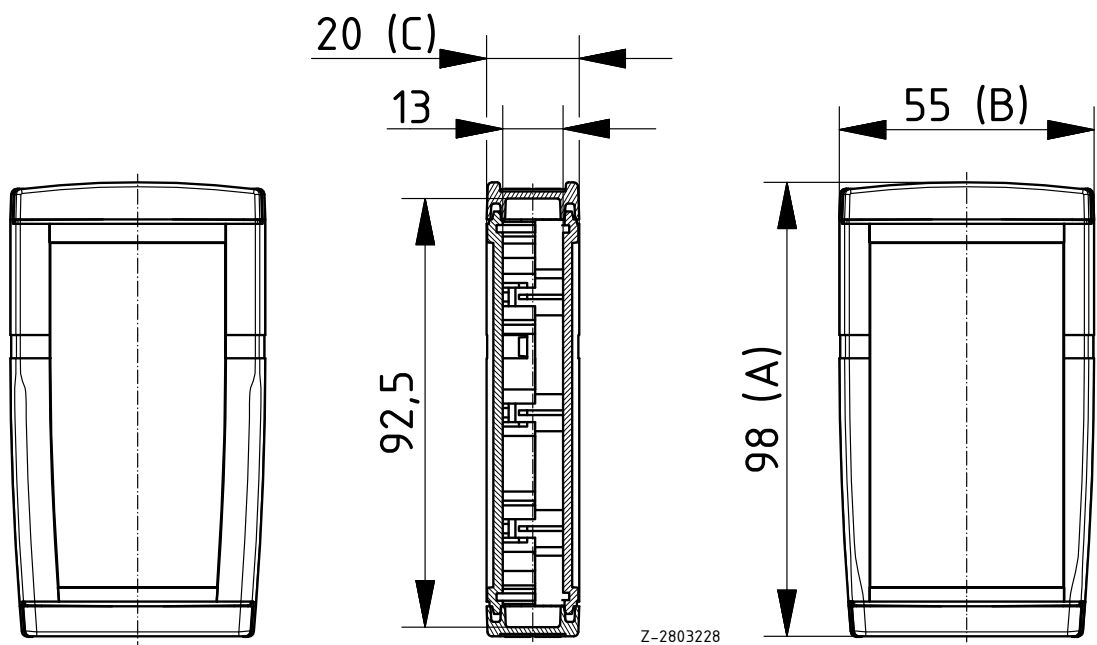


Enclosure with continuous membrane keypad area

Model	Order no.	A	B	C	Note
ART 225 F	34122511	98	55	20	Membrane keypad area lid 42 x 74.4 x 1.5 mm deep

Scope of delivery: Lid and base
PU = 5 pieces

Note: Please order caps separately. See following pages for accessories.



Z-2803228

BOPLA-Arteb 555



Enclosure with continuous membrane keypad area

Model	Order no.	A	B	C	Note
ART 555 F	34155511	165	92	30	Membrane keypad area 69.9 x 137.4 x 1.5 mm deep
ART 555 F mit BE 30	34155581*	165	92	30	Membrane keypad area 69.9 x 137.4 x 1.5 mm deep
ART 555 F mit BE 60	34155591*	165	92	30	Membrane keypad area 69.9 x 137.4 x 1.5 mm deep

Scope of delivery: Lid and base including fitted, tool-operated snap locks for caps. Versions BE... with additional battery compartment BE 30 or BE 60
PU = 5 pieces

Note: * = Available on request.

Please order caps separately. See following pages for accessories.



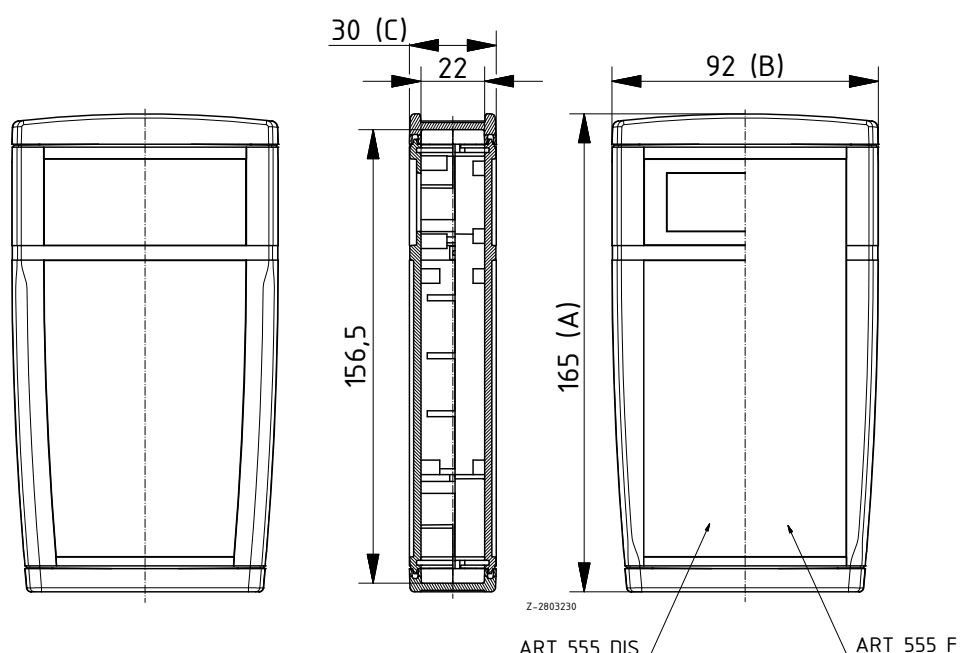
Enclosure with display opening and membrane keypad area

Model	Order no.	A	B	C	Note
ART 555 DIS	34155512	165	92	30	Membrane keypad area 69.9 x 102.4 x 1.5 mm deep
ART 555 DIS mit BE 30	34155582*	165	92	30	Membrane keypad area 69.9 x 102.4 x 1.5 mm deep
ART 555 DIS mit BE 60	34155592*	165	92	30	Membrane keypad area 69.9 x 102.4 x 1.5 mm deep

Scope of delivery: Lid and base including fitted, tool-operated snap locks for caps. Versions BE... with additional battery compartment BE 30 or BE 60
PU = 5 pieces

Note: * = Available on request.

Please order caps separately. See following pages for accessories.



BOPLA-Arteb 655

Enclosure with continuous membrane keypad area

Model	Order no.	A	B	C	Note
ART 655 F	34165511	204	110	41	Membrane keypad area 69.9 x 173.9 x 1.5 mm deep
ART 655 F mit BE 30	34165581*	204	110	41	Membrane keypad area 69.9 x 173.9 x 1.5 mm deep
ART 655 F mit BE 60	34165591*	204	110	41	Membrane keypad area 69.9 x 173.9 x 1.5 mm deep

Scope of delivery: Lid and base including fitted, tool-operated snap locks for caps. Versions BE... with additional battery compartment BE 30 or BE 60

PU = 5 pieces

Note: * = Available on request.

Please order caps separately. See following pages for accessories.



Enclosure with display opening and membrane keypad area

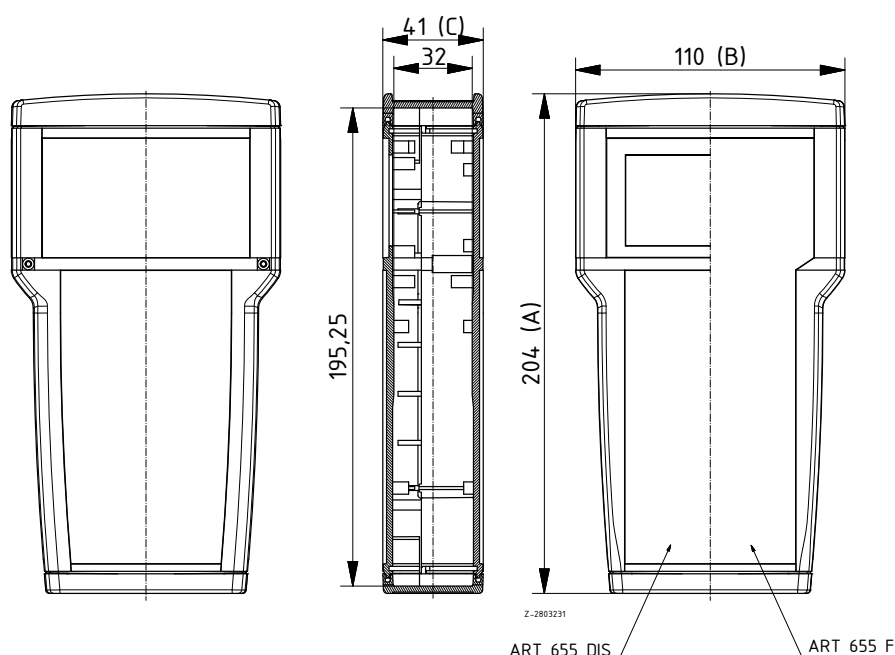
Model	Order no.	A	B	C	Note
ART 655 DIS	34165512	204	110	41	Membrane keypad area 69.9 x 119.9 x 1.5 mm deep
ART 655 DIS mit BE 30	34165582*	204	110	42	Membrane keypad area 69.9 x 119.9 x 1.5 mm deep
ART 655 DIS mit BE 60	34165592*	204	110	42	Membrane keypad area 69.9 x 119.9 x 1.5 mm deep

Scope of delivery: Lid and base including fitted, tool-operated snap locks for caps. Versions BE... with additional battery compartment BE 30 or BE 60

PU = 5 pieces

Note: * = Available on request. For displays 128 x 64 dots and 4 x 16 characters.

Please order caps and display screens separately. See following pages for accessories.



BOPLA-Arteb 865



Enclosure with continuous membrane keypad area

Model	Order no.	A	B	C	Note
ART 865 F	34186511	236	125	41	Membrane keypad area 84.9 x 201.9 x 1.5 mm deep
ART 865 F mit BE 30	34186581*	236	125	41	Membrane keypad area 84.9 x 201.9 x 1.5 mm deep
ART 865 F mit BE 60	34186591*	236	125	41	Membrane keypad area 84.9 x 201.9 x 1.5 mm deep

Scope of delivery: Lid and base including fitted, tool-operated snap locks for caps. Versions BE... with additional battery compartment BE 30 or BE 60
PU = 5 pieces

Note: * = Available on request.

Please order caps separately. See following pages for accessories.



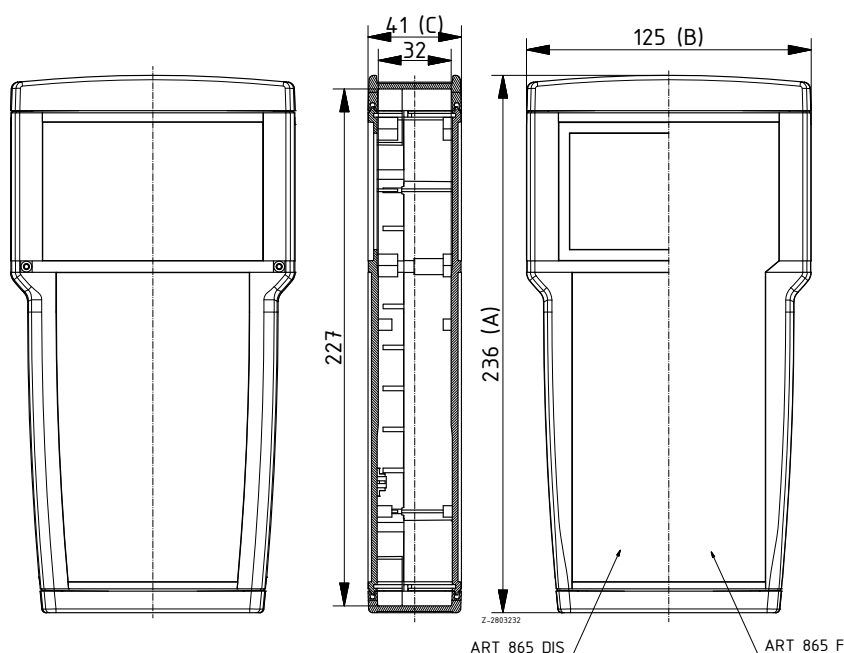
Enclosure with display opening and membrane keypad area

Model	Order no.	A	B	C	Note
ART 865 DIS	34186512	236	125	41	Membrane keypad area 84.9 x 135.9 x 1.5 mm deep
ART 865 DIS mit BE 30	34186582*	236	125	42	Membrane keypad area 84.9 x 135.9 x 1.5 mm deep
ART 865 DIS mit BE 60	34186592*	236	125	42	Membrane keypad area 84.9 x 135.9 x 1.5 mm deep

Scope of delivery: Lid and base including fitted, tool-operated snap locks for caps. Versions BE... with additional battery compartment BE 30 or BE 60
PU = 5 pieces

Note: * = Available on request. For displays 128 x 64 dots and 4 x 20 characters.

Please order caps and display screens separately. See following pages for accessories.



BOPLA-Arteb accessories

Caps for ART 115

Model	Order no.	Colour
ART 115 K0-7038	34111521	Agate grey
ART 115 K0-6027	34111522	Light green
ART 115 K0-1016	34111523	Sulphur yellow
ART 115 K0-7037	34111524	Dust grey
ART 115 K0-3000	34111525	Flame red
ART 115 K0-5015	34111527	Sky blue
ART 115 K0-IR	34111526	Black, infrared-permissive

Scope of delivery: PU = 5 pieces

Note: K0 = cap at top



Caps for ART 225

Model	Order no.	Colour
ART 225 K0-7038	34122521	Agate grey
ART 225 KU-7038	34122531	Agate grey
ART 225 K0-6027	34122522	Light green
ART 225 KU-6027	34122532	Light green
ART 225 K0-1016	34122523	Sulphur yellow
ART 225 KU-1016	34122533	Sulphur yellow
ART 225 K0-7037	34122524	Dust grey
ART 225 KU-7037	34122534	Dust grey
ART 225 K0-3000	34122525	Flame red
ART 225 KU-3000	34122535	Flame red
ART 225 K0-5015	34122527	Sky blue
ART 225 KU-5015	34122537	Sky blue
ART 225 K0-IR	34122526	Black, infrared-permissive

Scope of delivery: PU = 5 pieces

Note: K0 = cap at top, KU = cap at bottom



Caps for ART 335

Model	Order no.	Colour
ART 335 K0-7038	34133521	Agate grey
ART 335 KU-7038	34133531	Agate grey
ART 335 K0-6027	34133522	Light green
ART 335 KU-6027	34133532	Light green
ART 335 K0-1016	34133523	Sulphur yellow
ART 335 KU-1016	34133533	Sulphur yellow
ART 335 K0-7037	34133524	Dust grey
ART 335 KU-7037	34133534	Dust grey
ART 335 K0-3000	34133525	Flame red
ART 335 KU-3000	34133535	Flame red
ART 335 K0-5015	34133527	Sky blue
ART 335 KU-5015	34133537	Sky blue
ART 335 K0-IR	34133526	Black, infrared-permissive

Scope of delivery: PU = 5 pieces

Note: K0 = cap at top, KU = cap at bottom



BOPLA-Arteb accessories



Caps for ART 555

Model	Order no.	Colour
ART 555 KO-7038	34155521	Agate grey
ART 555 KU-7038	34155531	Agate grey
ART 555 KO-6027	34155522	Light green
ART 555 KU-6027	34155532	Light green
ART 555 KO-1016	34155523	Sulphur yellow
ART 555 KU-1016	34155533	Sulphur yellow
ART 555 KO-7037	34155524	Dust grey
ART 555 KU-7037	34155534	Dust grey
ART 555 KO-3000	34155525	Flame red
ART 555 KU-3000	34155535	Flame red
ART 555 KO-5015	34155527	Sky blue
ART 555 KU-5015	34155537	Sky blue
ART 555 KO-IR	34155526	Black, infrared-permissive

Scope of delivery: PU = 5 pieces

Note: KO = cap at top, KU = cap at bottom



Caps for ART 665

Model	Order no.	Colour
ART 655 KO-7038	34165521	Agate grey
ART 655 KU-7038	34165531	Agate grey
ART 655 KO-6027	34165522	Light green
ART 655 KU-6027	34165532	Light green
ART 655 KO-1016	34165523	Sulphur yellow
ART 655 KU-1016	34165533	Sulphur yellow
ART 655 KO-7037	34165524	Dust grey
ART 655 KU-7037	34165534	Dust grey
ART 655 KO-3000	34165525	Flame red
ART 655 KU-3000	34165535	Flame red
ART 655 KO-5015	34165527	Sky blue
ART 655 KU-5015	34165537	Sky blue
ART 655 KO-IR	34165526	Black, infrared-permissive

Scope of delivery: PU = 5 pieces

Note: KO = cap at top, KU = cap at bottom



Caps for ART 865

Model	Order no.	Colour
ART 865 KO-7038	34186521	Agate grey
ART 865 KU-7038	34186531	Agate grey
ART 865 KO-6027	34186522	Light green
ART 865 KU-6027	34186532	Light green
ART 865 KO-1016	34186523	Sulphur yellow
ART 865 KU-1016	34186533	Sulphur yellow
ART 865 KO-7037	34186524	Dust grey
ART 865 KU-7037	34186534	Dust grey
ART 865 KO-3000	34186525	Flame red
ART 865 KU-3000	34186535	Flame red

BOPLA-Arteb accessories

Caps for ART 865

Model	Order no.	Colour
ART 865 KO-5015	34186527	Sky blue
ART 865 KU-5015	34186537	Sky blue
ART 865 KO-IR	34186526	Black, infrared-permissive

Scope of delivery: PU = 5 pieces

Note: KO = cap at top, KU = cap at bottom

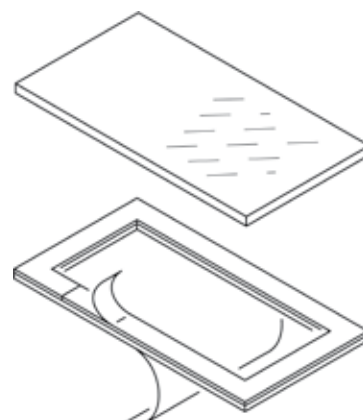


Display screens with stick-on frame

Model	Order no.	Note
ART 300 DIS	34130041	For ART 335 DIS
ART 500 DIS	34150041	For ART 555 DIS
ART 600 DIS	34160041	For ART 655 DIS
ART 800 DIS	34180041	For ART 865 DIS

Scope of delivery: PU = 5 pieces

Note: The windows are not printed, non-scratch-coated on one side, and with a stick-on frame. The non-scratch side cannot be printed or glued. Printing is necessary to cover the stick-on frame. Printing and mounting on request.



Partitions for battery compartments

Model	Order no.	Note
ART 335 BTU 1	34133541*	For 9V block battery in ART 335
ART 335 BTU 2	34133542*	For battery holder BH 2 MN (2 mignon batteries) in ART 335
ART 555 BTU 1	34155541*	For battery holder BH 3 MN (3 mignon batteries) in ART 555
ART 655 BTU 1	34165541*	For battery holder BH 4 MN-BL (4 mignon / 2 9V block batteries) in ART 655
ART 655 BTU 2	34165542*	For battery holder BH 6 MN-BL (6 mignon batteries) in ART 655
ART 865 BTU 1	34186541*	For battery holder BH 4 MN-BL (4 mignon / 2 9V block batteries) in ART 865
ART 865 BTU 2	34186542*	For battery holder BH 6 MN-BL (6 mignon batteries) in ART 865
ART 865 BTU 3	34186543*	For battery holder BH 4 MN-BL (4 mignon batteries) or BH 6 MN-BL (6 mignon batteries) in ART 865

Scope of delivery: Partitions, adhesive stickers, sponge buffers

PU = 5 pieces

Note: * = Available on request.

Battery holder as accessories. In ART 865 BTU 3, the battery holder is fitted crosswise, which provides more space in the upper enclosure area. All partitions are equipped with cable penetration.



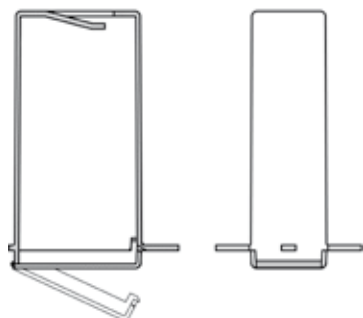
BOPLA-Arteb accessories



Battery holders

Model	Order no.	Note
BH 2 MC	34165572	For 2 micro batteries (LR03, R03, AM4, E92, AAA), connection with soldering tags
BH 4 MC	34165573	For 4 micro batteries (LR03, R03, AM4, E92, AAA), connection with soldering tags
BH 2 MN	34165574	For 2 mignon batteries (LR6, R06, AM3, E91, AA), connection clip included in scope of delivery
BH 3 MN	34165575	For 3 x mignon (LR6, R06, AM3, E91, AA), connection clip included in scope of delivery
BH 4 MN-BL	34165576	For 4 mignon batteries (LR6, R06, AM3, E91, AA), connection clip included in scope of delivery
BH 6 MN-BL	34165577	For 6 mignon batteries (LR6, R06, AM3, E91, AA), connection clip included in scope of delivery
BH 9V-CLIP	34165578	Clip for 9 V block (6LR61, 6AM6, 522)

Scope of delivery: PU = 5 pieces

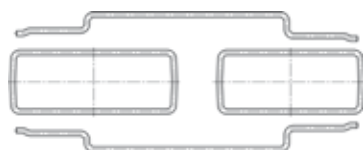


Battery shafts with integrated front panels

Model	Order no.	Note
ART 555 BEU-2 MN	34155561	For battery holder BH 2 MN (2 mignon batteries) or for 9V block battery in ART 555
ART 655 BEU-2 MN	34165561	For battery holder BH 2 MN (2 mignon batteries) or for 9V block battery in ART 655
ART 865 BEU-2 MN	34186561	For battery holder BH 2 MN (2 mignon batteries) or for 9V block battery in ART 865

Scope of delivery: PU = 5 pieces

Note: For mounting, insert the front panel in the enclosure behind the caps.



IP 65 seal set

Model	Order no.	Note
ART 225-DI	34122551	For ART 225
ART 335-DI	34133551	For ART 335
ART 555-DI	34155551	For ART 555
ART 655 DI	34165551	For ART 655
ART 865 DI	34186551	For ART 865

Scope of delivery: PU = 5 pieces

Note: Not for use with BE versions

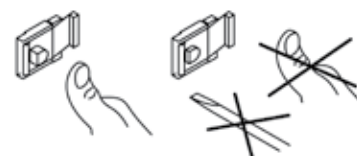
BOPLA-Arteb accessories

Snap locks for ART 555, 655 and 865

Model	Order no.	Note
ART SV-HB-7038	34155573	Hand operation
ART SV-SR-7038	34155572	Snap lock, blocking

Scope of delivery: PU = 10 pieces

Tool-operated snap locks are included with enclosures 555-865. Snap locks for manual operation or completely locking can also be fitted.



Dismantling tool for ART 555-865

Model	Order no.
Demontage Werkzeug	34333574

Scope of delivery: 1 dismantling tool



Universal clip and tip-up clip, polyamide

Model	Order no.	Colour
ASC 1	34090010	Agate grey
ASC 1	34090000	Black

Scope of delivery: 1 clip including screws

Note: Can be fitted subsequently to all enclosure. Processing of the enclosures is necessary. For use as a wall hanging unit when in closed position. Unlock the tip-up bow to swivel it by 90°.



Wall fitting for ASC 1

Model	Order no.	Colour
WH-ASC 1-7038	34090011	Agate grey
WH-ASC 1-9005	34090001	Black

Scope of delivery: 1 wall fitting



BOPLA-Arteb table drawer

Model	Order no.
ART SL 225	34122515*

Scope of delivery: Drawer, drawer support, 4 screws

PU = 5 pieces

Note: * = Available on request





BOS

Hand-held enclosure series for a range of uses in a classic design

- 8 sizes
- Various designs
- Enclosure with display cut-out or continuous membrane keypad area
- Various battery compartments
- With matching desktop and charging station, depending on model



Colour	Depending on the model: black, similar to RAL 9005, or agate grey, similar to RAL 7038; special colours on request
Protection class	Depending on the model: IP 40 / IP 65/DIN EN 60529
Enclosure material	ABS, seal made of CR; for details see Technical Information

These classic, tried-and-tested hand-held enclosures provide a range of features and accessory elements. The table on the following page contains information on selecting the ideal enclosure.





	Display opening	Battery comp. for	Ingress protect.	Slide switch	Panoramic display scr.	Display screen	UDS application
BOS 400	-	9V block	IP 40	-	-	-	-
BOS 400 ASC	-	9V block	IP 40	-	-	-	-
BOS 401	-	-	IP 40	-	-	-	-
BOS 401 ASC	-	-	IP 40	-	-	-	-
BOS 500	x	9V block	IP 40	-	x	-	x
BOS 501	x	9V block	IP 40	-	-	x	x
BOS 502	-	9V block	IP 40	-	-	-	x
BOS 503	-	9V block	IP 40	-	-	-	x
BOS 600	x	9V block	IP 40	-	-	x	-
BOS 601	-	9V block	IP 40	-	-	-	-
BOS 602	-	3 mignons	IP 40	-	-	-	-
BOS 700	x	9V block	IP 40	-	-	x	x
BOS 701	x	9V block	IP 40	-	-	x	x
BOS 704	x	9V block	IP 40	x	-	x	x
BOS 705	x	9V block	IP 40	x	-	x	x
BOS 750	x	9V block	IP 40	-	x	-	x
BOS 751	x	9V block	IP 40	-	-	x	x
BOS 752	-	9V block	IP 40	-	-	-	x
BOS 753	x	-	IP 40	-	x	-	x
BOS 754	x	-	IP 40	-	-	x	x
BOS 755	-	-	IP 40	-	-	-	x
BOS 756	x	9V block	IP 40	x	x	-	x
BOS 757	x	9V block	IP 40	x	-	x	x
BOS 758	-	9V block	IP 40	x	-	-	x
BOS 759	x	-	IP 40	x	x	-	x
BOS 760	x	-	IP 40	x	-	x	x
BOS 761	-	-	IP 40	x	-	-	x
BOS 800	x	4 mignons	IP 40	-	x	-	x
BOS 801	x	4 mignons	IP 40	-	-	x	x
BOS 802	-	4 mignons	IP 40	-	-	-	x
BOS 803	x	-	IP 40	-	x	-	x
BOS 804	x	-	IP 40	-	-	x	x
BOS 805	-	-	IP 40	-	-	-	x
BOS 807	-	4 mignons	IP 40	-	-	-	x
BOS 808	-	-	IP 40	-	-	-	x
BOS 900	x	-	IP 65	-	-	x	x
BOS 901	x	-	IP 65	-	-	x	-
BOS 902	x	4 mignons	IP 65	-	-	x	-
BOS 903	x	2 x 9V block	IP 65	-	-	x	-
BOS 910	x	-	IP 65	-	-	x	x
BOS 911	x	-	IP 65	-	-	x	-
BOS 912	x	4 mignons	IP 65	-	-	x	-
BOS 913	x	2 x 9V block	IP 65	-	-	x	-



Panoramic display screen



Display screen



Slide for switch

BOS 400 / 400 ASC / 401 / 401 ASC

BOS 400/400 ASC with compartment for 9V block battery

Model	Order no.	A	B	C	Colour
BOS 400	34400000	100	65	24	Black
BOS 400 ASC	34400500	100	65	24	Black

Scope of delivery: Lid, base, battery compartment lid, battery compartment side, screws

For BOS 400 ASC, plus integrated clip bearing and bow

Note: As an option, 2 micro batteries can be inserted in the enclosure by using battery holder BH 2 MC (order no.: 34165572). Wall fitting for ASC types: see general accessories.



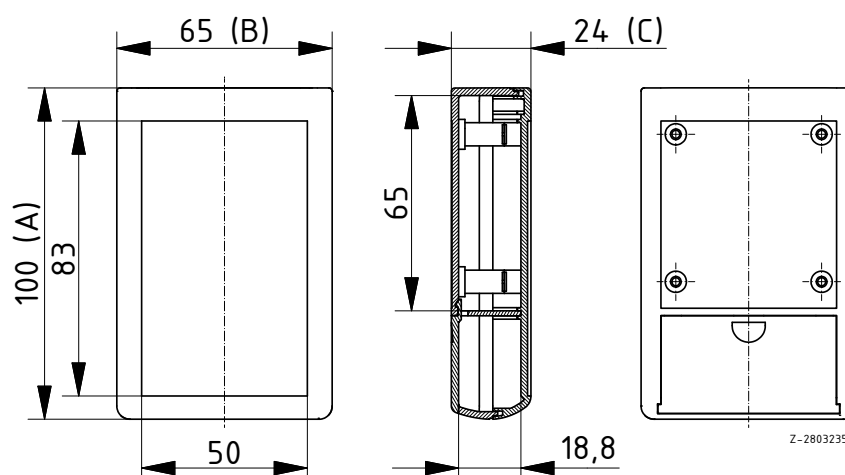
BOS 401/401 ASC

Model	Order no.	A	B	C	Colour
BOS 401	34401000	100	65	24	Black
BOS 401 ASC	34401500	100	65	24	Black

Scope of delivery: Lid, base, screws

For BOS 400 ASC, plus integrated clip bearing and bow

Note: As an option, 2 micro batteries can be inserted in the enclosure by using battery holder BH 2 MC (order no.: 34165572). Wall fitting for ASC types: see general accessories.



BOS 500 / 501 / 502 / 503



BOS 500 with panoramic display screen and compartment for 9V block battery

Model	Order no.	A	B	C	Colour
BOS 500	34500000	120	60	25	Black
BOS 500	34500003	120	60	25	Agate grey

Scope of delivery: Lid, base, front panel, battery compartment lid, screw, panoramic display screen

Note: See following pages for accessories.



BOS 501 with display screen and compartment for 9V block battery

Model	Order no.	A	B	C	Colour
BOS 501	34501000	120	60	25	Black
BOS 501	34501002	120	60	25	Agate grey

Scope of delivery: Lid, base, front panel, battery compartment lid, screw, display screen

Note: See following pages for accessories.



BOS 502 without display cut-out, with compartment for 9V block battery

Model	Order no.	A	B	C	Colour
BOS 502	34502000	120	60	25	Black
BOS 502	34502002	120	60	25	Agate grey

Scope of delivery: Lid, base, front panel, battery compartment lid, screws

Note: See following pages for accessories.

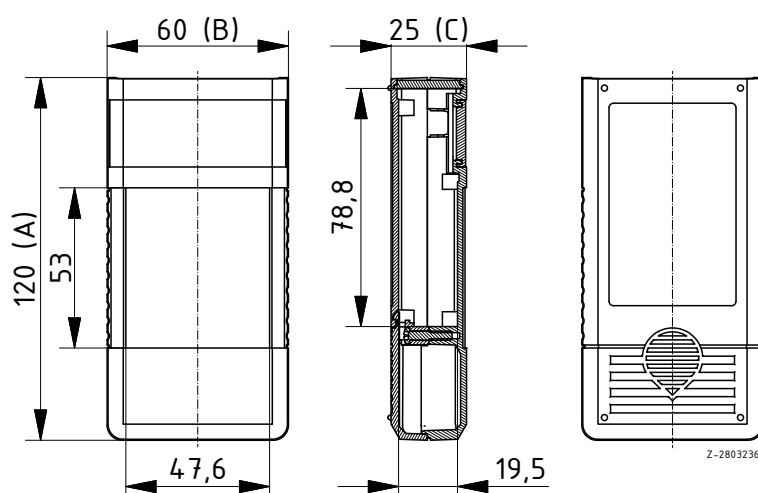
BOS 500 / 501 / 502 / 503

BOS 503 with continuous membrane keypad area and compartment for 9V block battery

Model	Order no.	A	B	C	Colour
BOS 503	34503000	120	60	25	Black
BOS 503	34503001	120	60	25	Agate grey

Scope of delivery: Lid, base, front panel, battery compartment lid, screws

Note: See following pages for accessories.



BOS 600 / 601 / 602



BOS 600 with display screen and compartment for 9V block battery

Model	Order no.	A	B	C	Colour
BOS 600	34600000	172	77	25	Black

Scope of delivery: Lid, base, 2 front panels, screws, battery compartment lid, display screen



BOS 601 with continuous membrane keypad area and compartment for 9V block battery

Model	Order no.	A	B	C	Colour
BOS 601	34601000	172	77	25	Black

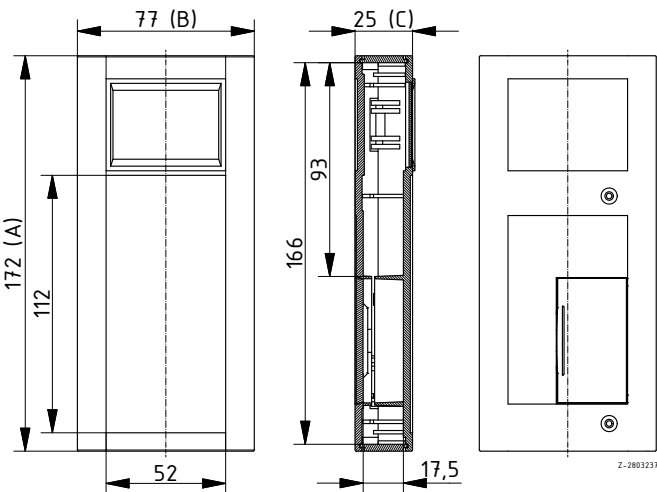
Scope of delivery: Lid, base, 2 front panels, screws, battery compartment lid



BOS 602 with loudspeaker grille and compartment for 3x 1.5 V mignon batteries

Model	Order no.	A	B	C
BOS 602	34602000	172	77	25

Scope of delivery: Lid, base, 2 plastic front panels, screws



BOS 700 / 701 / 704 / 705

BOS 700 / 701 with display opening and compartment for 9V block battery

Model	Order no.	A	B	C	Colour	Note
BOS 700	34700000	150	80	30	Black	Display opening: 23 x 58 mm
BOS 701	34701000	150	80	30	Black	Display opening: 18 x 48 mm

Scope of delivery: Lid, base, front panel, battery compartment lid, screws, threaded inserts

Please order display screen separately.

Note: See following pages for accessories.



BOS 704/705 with display opening, side-fitted slide for switch and compartment for 9V block battery

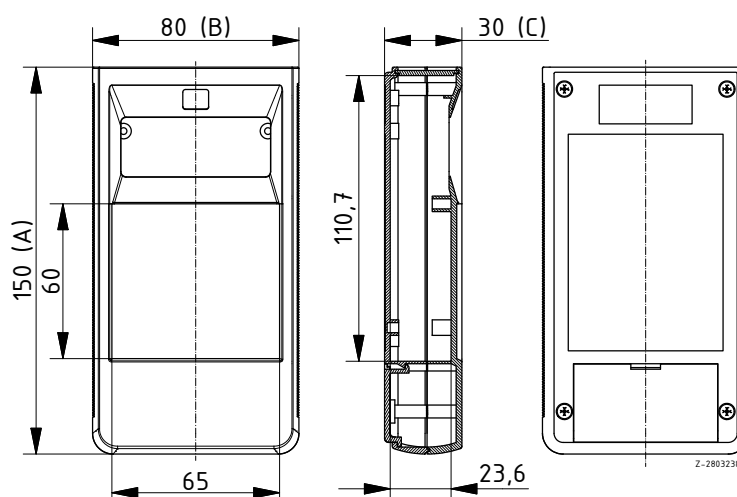
Model	Order no.	A	B	C	Colour	Note
BOS 704	34704000*	150	80	30	Black	Display opening: 23 x 58 mm
BOS 705	34705000	150	80	30	Black	Display opening: 18 x 48 mm

Scope of delivery: Lid, base, front panel, battery compartment lid, screws, threaded inserts

Please order display screen separately.

Note: * = Available on request.

Accessories: See following pages.



BOS 750 – BOS 761



BOS 750 with panoramic display screen and compartment for 9V block battery

Model	Order no.	A	B	C	Colour
BOS 750	34750000	157	84	30	Black
BOS 750	34750001	157	84	30	Agate grey

Scope of delivery: Lid, base, front panel, battery compartment lid, screws, panoramic display screen



BOS 751 with display screen and compartment for 9V block battery

Model	Order no.	A	B	C	Colour
BOS 751	34751000	157	84	30	Black
BOS 751	34751001	157	84	30	Agate grey

Scope of delivery: Lid, base, front panel, battery compartment lid, screws, display screen, slide



BOS 752 with continuous membrane keypad area and compartment for 9V block battery

Model	Order no.	A	B	C	Colour
BOS 752	34752000	157	84	30	Black
BOS 752	34752001	157	84	30	Agate grey

Scope of delivery: Lid, base, front panel, battery compartment lid, screws



BOS 753 with panoramic display screen

Model	Order no.	A	B	C	Colour
BOS 753	34753000	157	84	30	Black

Scope of delivery: Lid, base, front panel, screws, panoramic display screen

BOS 750 – BOS 761

BOS 754 with display screen

Model	Order no.	A	B	C	Colour
BOS 754	34754000	157	84	30	Black
BOS 754	34754001	157	84	30	Agate grey

Scope of delivery: Lid, base, front panel, screws, display screen



BOS 755 with continuous membrane keypad area

Model	Order no.	A	B	C	Colour
BOS 755	34755000	157	84	30	Black
BOS 755	34755001	157	84	30	Agate grey

Scope of delivery: Lid, base, front panel, screws



BOS 756 with panoramic display screen, side-fitted slide for switch and compartment for 9V block battery

Model	Order no.	A	B	C	Colour
BOS 756	34756000	157	84	30	Black

Scope of delivery: Lid, base, front panel, battery compartment lid, screws, panoramic display screen, slide



BOS 757 with display screen, side-fitted slide for switch and compartment for 9V block battery

Model	Order no.	A	B	C	Colour
BOS 757	34757000	157	84	30	Black

Scope of delivery: Lid, base, front panel, battery compartment lid, screws, display screen, slide



BOS 750 – BOS 761



BOS 758 with continuous membrane keypad area and side-fitted slide for switch and compartment for 9V block battery

Model	Order no.	A	B	C	Colour
BOS 758	34758000	157	84	30	Black

Scope of delivery: Lid, base, front panel, battery compartment lid, screws, slide



BOS 759 with panoramic display screen and side-fitted slide for switch

Model	Order no.	A	B	C	Colour
BOS 759	34759000	157	84	30	Black

Scope of delivery: Lid, base, front panel, battery compartment lid, screws, panoramic display screen, slide



BOS 760 with display screen, side-fitted slide for switch

Model	Order no.	A	B	C	Colour
BOS 760	34760000	157	84	30	Black

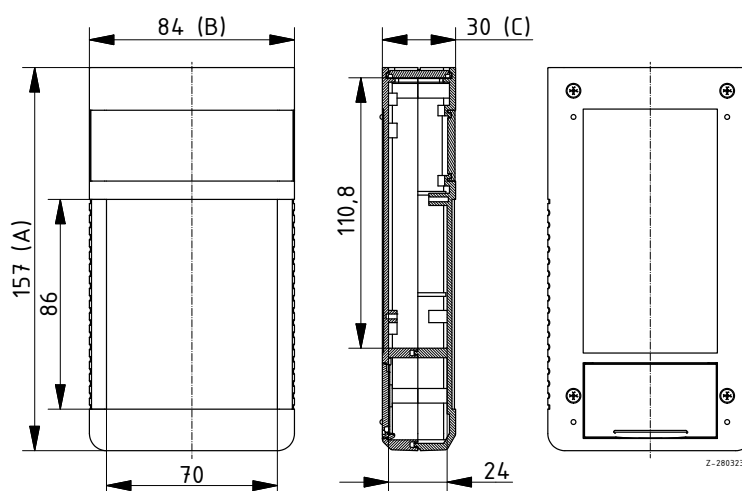
Scope of delivery: Lid, base, front panel, battery compartment lid, screws, display screen, slide

BOS 750 – BOS 761

BOS 761 with continuous membrane keypad area and side-fitted slide for switch

Model	Order no.	A	B	C	Colour
BOS 761	34761000	157	84	30	Black

Scope of delivery: Lid, base, front panel, battery compartment lid, screws, slide



BOS 800 – BOS 808



BOS 800 with panoramic display screen and compartment for 4 x 1.5 mignon batteries

Model	Order no.	A	B	C	Colour
BOS 800	34800000	196	100	40	Black
BOS 800	34800001	196	100	40	Agate grey

Scope of delivery: Lid, base, front panel, screws, battery compartment lid, contacts, panoramic display screen

Note: * = Available on request



BOS 801 with display screen and compartment for 4 x 1.5 mignon batteries

Model	Order no.	A	B	C	Colour
BOS 801	34801000	196	100	40	Black
BOS 801	34801001*	196	100	40	Agate grey

Scope of delivery: Lid, base, front panel, screws, battery compartment lid, contacts, display screen

Note: * = Available on request



BOS 802 without display cut-out, with compartment for 4 x 1.5 V mignon batteries

Model	Order no.	A	B	C	Colour
BOS 802	34802000	196	100	40	Black
BOS 802	34802001*	196	100	40	Agate grey

Scope of delivery: Lid, base, front panel, screws, battery compartment lid, contacts

Note: * = Available on request

BOS 800 – BOS 808

BOS 803 with panoramic display screen

Model	Order no.	A	B	C	Colour
BOS 803	34803000	196	100	40	Black
BOS 803	34803001*	196	100	40	Agate grey

Scope of delivery: Lid, base, front panel, screws, panoramic display screen

Note: * = Available on request



BOS 804 with display screen

Model	Order no.	A	B	C	Colour
BOS 804	34804000	196	100	40	Black
BOS 804	34804001	196	100	40	Agate grey

Scope of delivery: Lid, base, front panel, screws, display screen



BOS 805, without display cut-out

Model	Order no.	A	B	C	Colour
BOS 805	34805000	196	100	40	Black
BOS 803	34805001*	196	100	40	Agate grey

Scope of delivery: Lid, base, front panel, screws

Note: * = Available on request



BOS 800 – BOS 808



BOS 807 with continuous membrane keypad area and compartment for 4 x 1.5 V mignon batteries

Model	Order no.	A	B	C	Colour
BOS 807	34807000	196	100	40	Black
BOS 807	34807001	196	100	40	Agate grey

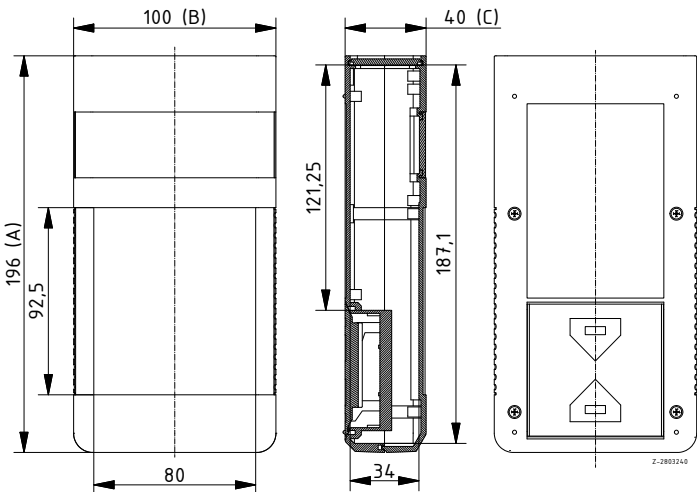
Scope of delivery: Lid, base, front panel, screws, battery compartment lid, contacts



BOS 808 with continuous membrane keypad area

Model	Order no.	A	B	C	Colour
BOS 808	34808000	196	100	40	Black
BOS 808	34808001	196	100	40	Agate grey

Scope of delivery: Lid, base, front panel, screws, battery compartment lid, contacts



BOS 900 – BOS 903

BOS 900

Model	Order no.	A	B	C	Colour
BOS 900	34900009	211	100	26	Black
BOS 900	34900000	211	100	26	Agate grey

Scope of delivery: Lid with seal, base, screws, display screen (enclosed unfitted)

Note: See following pages for accessories

Fitting of display screen on request



BOS 901 with carrying strap and tip-up foot

Model	Order no.	A	B	C	Colour
BOS 901	34901009*	211	100	26	Black
BOS 901	34901000	211	100	26	Agate grey

Scope of delivery: Lid with seal, base, carrying strap, tip-up foot, screws, display screen (enclosed unfitted)

Note * = Available on request

See following pages for accessories

Fitting of display screen on request



BOS 902 with carrying strap and compartment for 4 x 1.5 V mignon batteries

Model	Order no.	A	B	C	Colour
BOS 902	34902009	211	100	26	Black
BOS 902	34902000	211	100	26	Agate grey

Scope of delivery: Lid with seal, base with battery compartment including contacts, carrying strap, screws, display screen (enclosed unfitted)

Note: See following pages for accessories

Fitting of display screen on request



BOS 900 – BOS 903

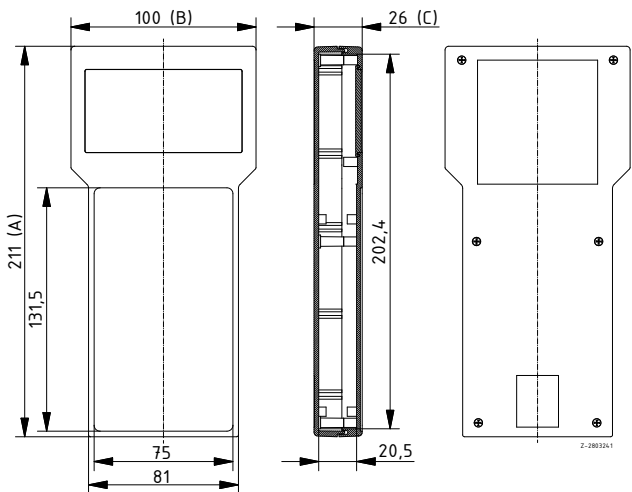


BOS 903 with carrying strap and compartment for 2 x 9V block batteries

Model	Order no.	A	B	C	Colour
BOS 903	34903009*	211	100	26	Black
BOS 903	34903000	211	100	26	Agate grey

Scope of delivery: Lid with seal, base with battery compartment, carrying strap, screws, display screen (enclosed unfitted)

Note * = Available on request
 See following pages for accessories
 Fitting of display screen on request



BOS 910 – 913

BOS 910

Model	Order no.	A	B	C	Colour
BOS 910	34910009	224	106	40	Black
BOS 910	34910002	224	106	40	Agate grey

Scope of delivery: Lid with seal, base, screws, display screen (enclosed unfitted)

Note: See following pages for accessories

Fitting of display screen on request



BOS 911 with tip-up foot

Model	Order no.	A	B	C	Colour
BOS 911	34911009	224	106	40	Black
BOS 911	34911000	224	106	40	Agate grey

Scope of delivery: Lid with seal, base, self-tapping screws, tip-up foot, display screen

Note: See following pages for accessories

Fitting of display screen on request



BOS 912 with compartment for 4 x 1.5 V mignon batteries

Model	Order no.	A	B	C	Colour
BOS 912	34912009	224	106	40	Black
BOS 912	34912000	224	106	40	Agate grey

Scope of delivery: Lid with seal, base with battery compartment including contacts, screws, display screen (enclosed unfitted)

Note: See following pages for accessories

Fitting of display screen on request



BOS 910 – 913

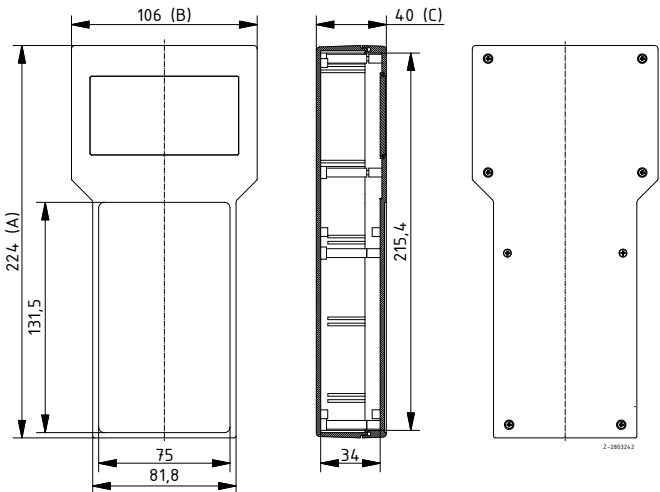


BOS 913 with compartment for 2 x 9V block batteries

Model	Order no.	A	B	C	Colour
BOS 913	34913000	224	106	40	Black
BOS 913	34913009*	224	106	40	Agate grey

Scope of delivery: Lid with seal, base with battery compartment, screws, display screen (enclosed unfitted)

Note * = Available on request
 See following pages for accessories
 Fitting of display screen on request



BOS 500 – 913 accessories

Front panels BOS 500-503

Model	Order no.	Note
Front panels IR	34955006	For BOS 500/501/502/503
Front panels Alu	34055000	For BOS 500/501/502/503

Scope of delivery: 1 front panel

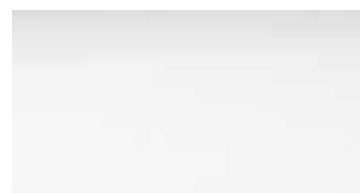
Note: IR = Infrared-permissive



Display screens BOS 700-705

Model	Order no.	Note
Display screen	26000800	For BOS 700/701/704/705

Scope of delivery: 1 display screen



Intermediate frame BOS 900-903

Model	Order no.	Colour	Note
ZR 900	34900909	Black	For BOS 900/901/902/903
ZR 900	34900900	Agate grey	For BOS 900/901/902/903

Scope of delivery: Intermediate frame, mounted seal, 6 screws



Table stand BOS 900-903 / BOS 910-913

Model	Order no.	Colour	Note
STD 900	34900029*	Black	For BOS 900/901/902/903/910/911/912/913
STD 900	34900002	Agate grey	For BOS 900/901/902/903/910/911/912/913

Scope of delivery: Lid, base, screws

Note: * = Available on request



Display adapter BOS 910-913

Model	Order no.
ADS 910-I	34913001
ADS 910-II	34913002
ADS 910-III	34913003

Scope of delivery: 2 plastic parts, 4 screws

Note:

Model	Type	Display fitting dimensions
ADS 910-I	Adapter for graphic-type displays, 128 x 64 dots	77 x 60
ADS 910-II	Adapter for graphic-type displays, 128 x 64 dots	68 x 64.92
ADS 910-III	Adapter for graphic-type displays, 16 characters, 4 lines	82 x 55





Tastomat

The polyamide hand-held enclosure for heavy duty use, ingress protection IP 65

- 2 sizes
- Glassbead-reinforced polyamide ensures high level of stability
- Continuous protective collar



Colour	Light grey, similar to RAL 7035; special colours on request
Protection class	IP 65/DIN EN 60529
Enclosure material	PA-GB, Neoprene CR seal; see Technical Information for details

Its material thicknesses, the design and the material used make this sturdy enclosure ideal for heavy-duty use. Even under extreme environmental conditions, this enclosure provides the fitted electronics with optimal protection.

Note: In case of prolonged heat (e.g. at 75 °C for 3 hours) an after-shrinkage of the material by up to 0.8 % is possible. To a similar extent, absorption of humidity may affect dimensions.



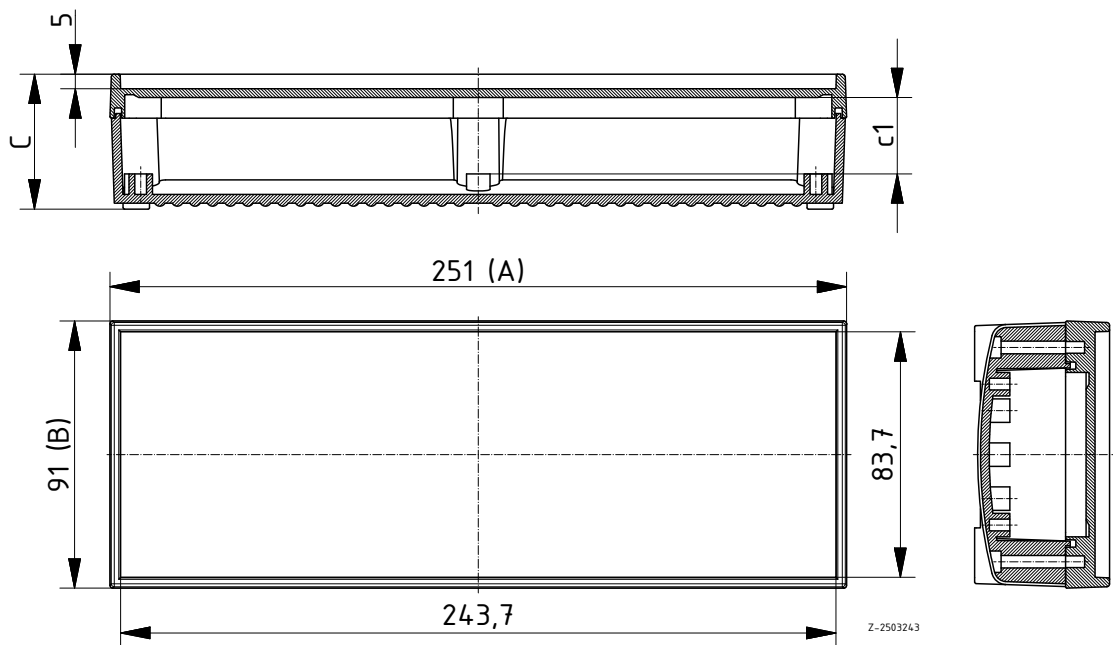
Tastomat



Tastomat 100 – 200

Model	Order no.	A	B	C	c1
TAS 100	08100000	251	91	46	26
TAS 200	08200000	251	91	80,4	60,4

Scope of delivery: Base, lid, 6 enclosure screws, 4 mounting screws



Application example

of our comprehensive range of services for Tastomat



Mechanical processing:

Milling, drilling, countersinking, thread-cutting, punching
Ultrasonic welding of individual mounting points

Mounting work:

Mounting of cable glands, battery compartments,
Mounting of threaded bushings, bolts and conductive seals

Gluing work:

Mounting of membrane keypads, wiring

Soldering and assembly work

**This is only a small selection
of our comprehensive range of services,
with which we manufacture individual
products of excellent quality.**

For more information, please see the introduction to the catalogue.



Circum

The new electronics enclosure for table, wall, desktop and control panel mounting applications

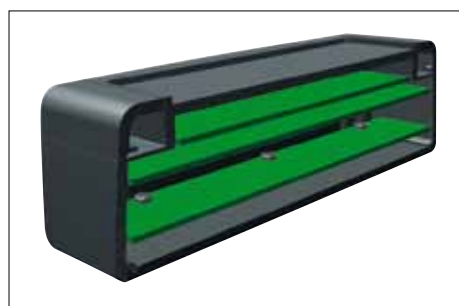
- 3 basic sizes
- 3 variant versions
- 2 colours
- Consistent design and screwing system concept
- Enclosure screwing system concealed by cover panel
- Cover panels in different colours
- Lids available with moulded-on front panels or plug-in front panels
- Up to 3 PCB levels possible
- Wall brackets as an accessory
- Frame for wall fitting of the control panel mounting types



Colour	Graphit grey, similar to RAL 7024 or agate grey, similar to RAL 7038; special colours on request
Protection class	IP 40/DIN EN 60529
Enclosure material	ABS; for details see Technical Information

All enclosure types have an area in the lid recessed by 2 mm for mounting membrane keypads. Interfaces such as micro-USBs or an SD card reader can be fitted optimally in a protected position under the covers. Using the control panel mounting type with the matching wall frame allows different mounting possibilities.





Multiple PCB levels possible



Optional card reader slot in a protected position under the cover panel.



Use the wall brackets for easy fitting of the F and F-FP types to the wall. The wall brackets can be mounted lengthwise or crosswise.



The wall frame for the control panel mounting version allows choice of mounting without opening the enclosure.



Coloured cover panels are available as accessories.

Circum C 1435

Enclosure with integrated front panel

Model	Order no.	A	B	C	Colour
C 1435 F-7038	93143511	145,3	74,7	34	Agate grey
C 1435 F-7024	93143521	145,3	74,7	34	Graphite grey

Scope of delivery: Lid with integrated front panels, base, 2 cover panels, 4 screws

Note: See following pages for accessories.

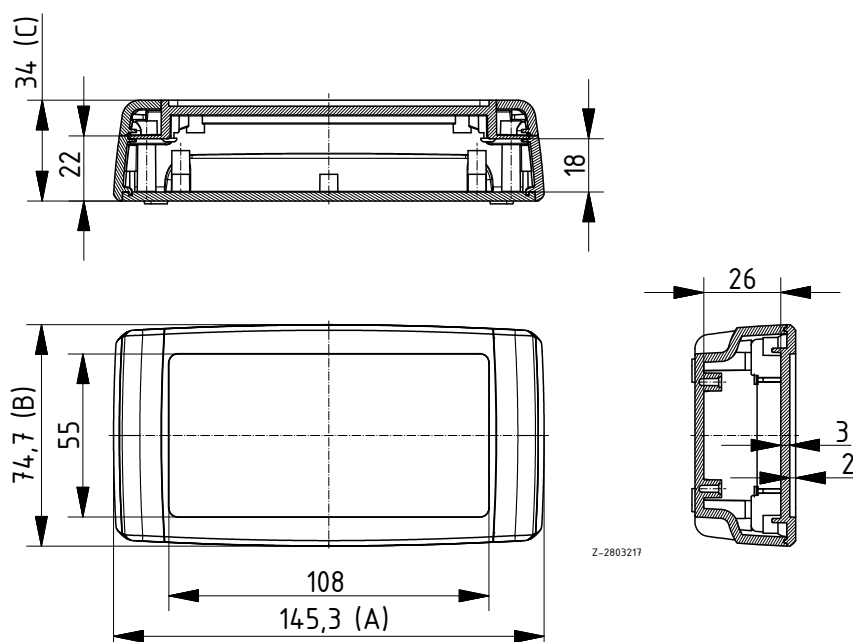


Enclosure with plug-in front panel

Model	Order no.	A	B	C	Colour
C 1435 F-FP-7038	93143512	145,3	74,7	34	Agate grey
C 1435 F-FP-7024	93143522	145,3	74,7	34	Graphite grey

Scope of delivery: Lid, base, 2 plug-in front panels, 2 cover panels, 4 screws

Note: See following pages for accessories.



Circum C 1435



Console enclosure with integrated front panel

Model	Order no.	A	B	C	Colour
C 1435 P-7038	93143513	145,3	74,7	34	Agate grey
C 1435 P-7024	93143523	145,3	74,7	34	Graphite grey

Lid with integrated front panels, console base, 2 cover panels, 4 screws, 4 rubber feet

Note: See following pages for accessories.

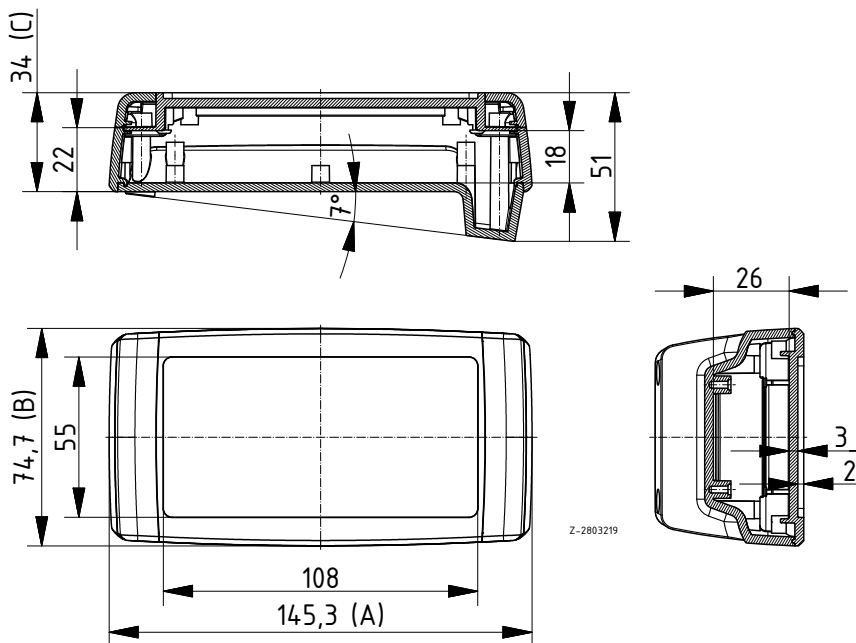


Console enclosure with plug-in front panel

Model	Order no.	A	B	C	Colour
C 1435 P-FP-7038	93143514	145,3	74,7	34	Agate grey
C 1435 P-FP-7024	93143524	145,3	74,7	34	Graphite grey

Scope of delivery: Lid, console base, 2 plug-in front panels, 2 cover panels, 4 screws, 4 rubber feet

Note: See following pages for accessories.



Circum C 1435

Control panel mounting enclosure

Model	Order no.	A	B	C	Colour
C 1435 F-NG-7038	93143515	141,4	74,7	15	Agate grey
C 1435 F-NG-7024	93143525	141,4	74,7	15	Graphite grey

Scope of delivery: Lid, control panel mounting base, 2 cover panels, 4 screws

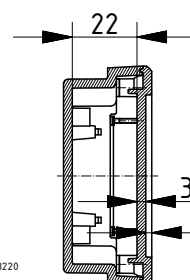
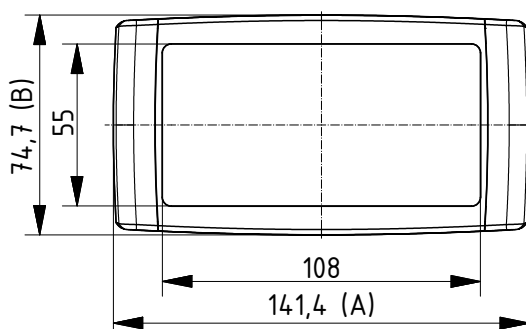
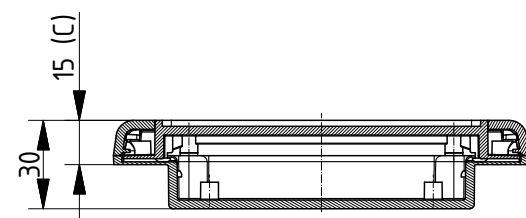
Note: See following pages for accessories.



Wall frame for C 1435 F-NG

Model	Order no.	Colour
C 1435 WR-7038	93143516	Agate grey
C 1435 WR-7024	93143526	Graphite grey

Scope of delivery: Wall frame, 4 screws



Z-2803220

Circum C 1440



Enclosure with integrated front panel

Model	Order no.	A	B	C	Colour
C 1440 F-7038	93144011	147	74,7	42	Agate grey
C 1440 F-7024	93144021	147	74,7	42	Graphite grey

Scope of delivery: Lid with integrated front panels, base, 2 cover panels, 4 screws

Note: See following pages for accessories.

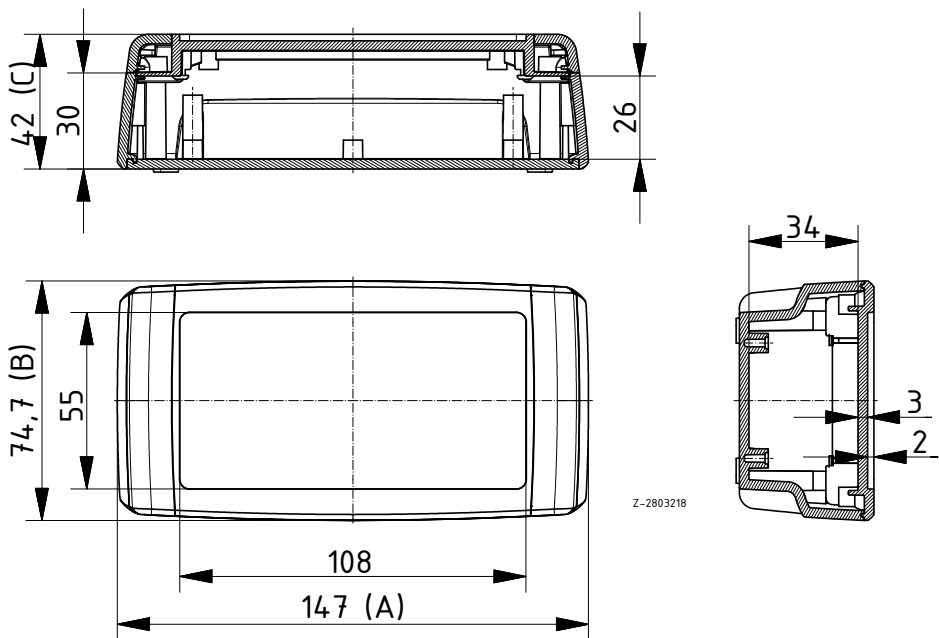


Enclosure with plug-in front panel

Model	Order no.	A	B	C	Colour
C 1440 F-FP-7038	93144012	147	74,7	42	Agate grey
C 1440 F-FP-7024	93144022	147	74,7	42	Graphite grey

Scope of delivery: Lid, base, 2 plug-in front panels, 2 cover panels, 4 screws

Note: See following pages for accessories.



Circum C 1735

Control panel mounting enclosure

Model	Order no.	A	B	C	Colour
C 1735 F-NG-7038	93173515	166,4	95,7	15	Agate grey
C 1735 F-NG-7024	93173525	166,4	95,7	15	Graphite grey

Scope of delivery: Lid, control panel mounting base, 2 cover panels, 4 screws

Note: See following pages for accessories.

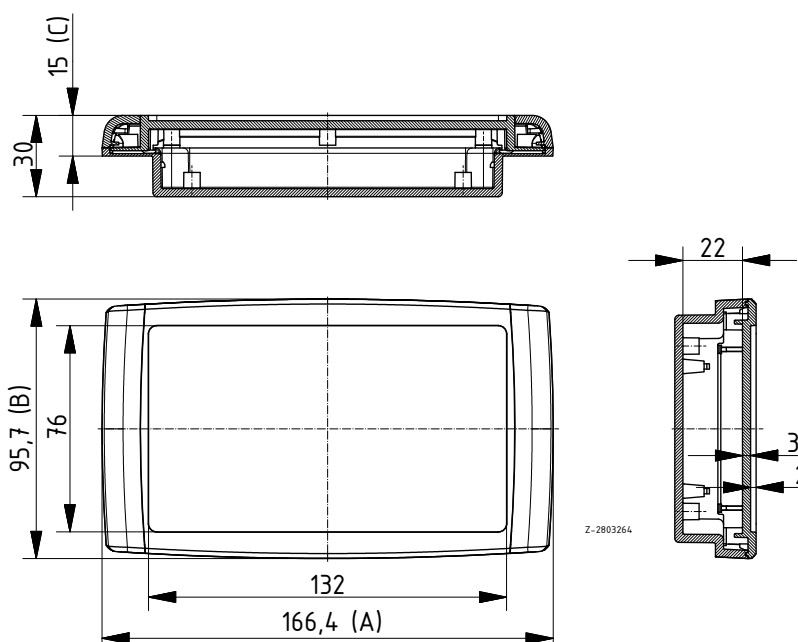
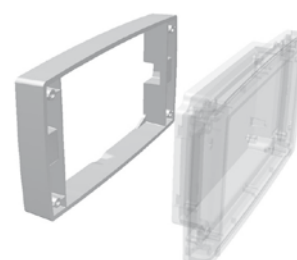
Max. display size: 4.3"



Wall frame for C 1735 F-NG

Model	Order no.	Colour
C 1735 WR-7038	93173516	Agate grey
C 1735 WR-7024	93173526	Graphite grey

Scope of delivery: Wall frame, 4 screws



Circum C 2235 (under development)

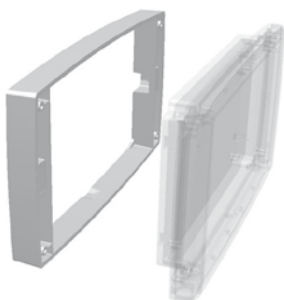


Control panel mounting enclosure

Model	Order no.	A	B	C	Colour
C 2235 F-NG-7038	93223515	216,4	131,7	15	Agate grey
C 2235 F-NG-7024	93223525	216,4	131,7	15	Graphite grey

Scope of delivery: Lid, control panel mounting base, 2 cover panels, 4 screws

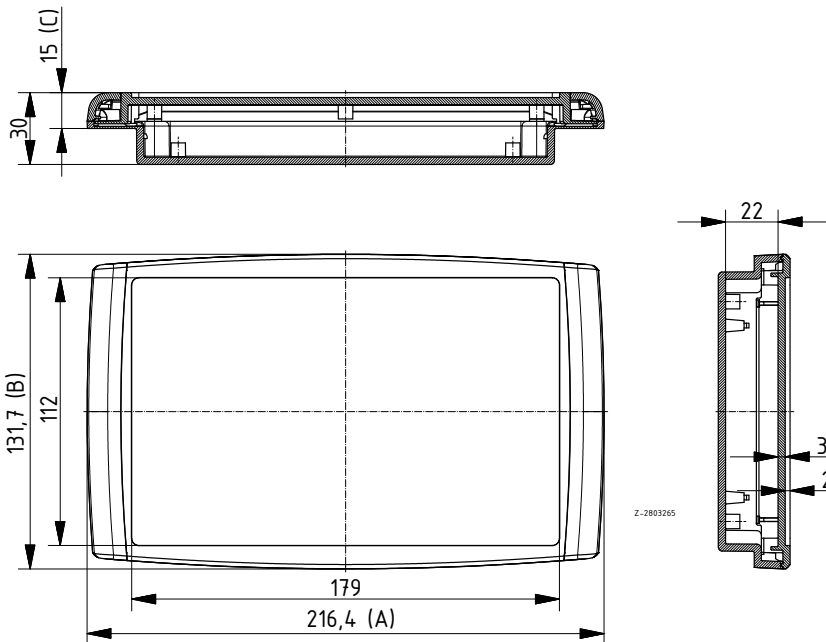
Note: See following pages for accessories.
Max. display size: 5.7"



Wall frame for C 2235 F-NG

Model	Order no.	Colour
C 2235 WR-7038	93223516	Agate grey
C 2235 WR-7024	93223526	Graphite grey

Scope of delivery: Wall frame, 4 screws



Circum accessories

Cover panels

Model	Order no.	Colour	Note
C 1400 BL-3000	93140040	Flame red	For C 14..
C 1400 BL-5014	93140050	Dove blue	For C 14..
C 1400 BL-7038	93140010	Agate grey	For C 14..
C 1400 BL-7024	93140020	Graphite grey	For C 14..
C 1700 BL-3000	93170040	Flame red	For C 17..
C 1700 BL-5014	93170050	Dove blue	For C 17..
C 1700 BL-7038	93170010	Agate grey	For C 17..
C 1700 BL-7024	93170020	Graphite grey	For C 17..
C 2200 BL-3000	93220040	Flame red	For C 22..
C 2200 BL-5014	93220050	Dove blue	For C 22..
C 2200 BL-7038	93220010	Agate grey	For C 22..
C 2200 BL-7024	93220020	Graphite grey	For C 22..

Scope of delivery: 10 cover panels (for 5 enclosures)



Wall brackets for C...F and C...F-FP

Model	Order no.	Colour
C-WL-7038	93000010	Agate grey
C-WL-7024	93000020	Graphite grey

Scope of delivery: 2 wall brackets (right), 2 wall brackets (left), 4 screws





Elegant

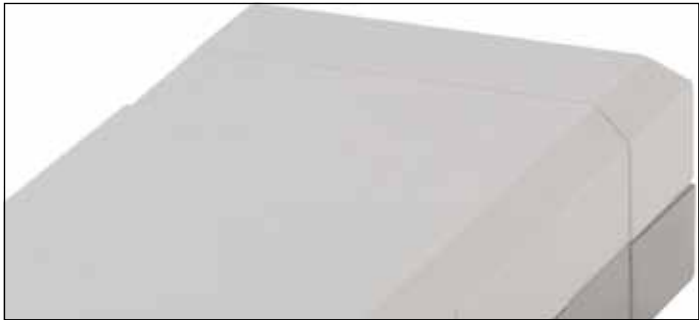
Many different versions provide optimal protection for the electronics

- 4 basic sizes with different heights
- With or without air vents
- Various covers
- Plastic or aluminium front panels (optional)
- Integrated wall fitting
- Separate wall brackets (optional)
- Depending on the model, screws for lid fitting from above and quick-release fasteners are available
- Versions with 1 mm recessed membrane keypad area



Colour	Lid: light grey, similar to RAL 7035; base, covers and front panels: agate grey, similar to RAL 7038; special colours on request
Protection class	IP 40/DIN EN 60529; higher protection on request (EG..., EG...F)
Enclosure material	PS; for details see Technical Information





Without integrated ventilation



With integrated ventilation (L)



Cover without ventilation (B)



Cover with ventilation (BL)



Plastic front panel (FK)



Membrane keypad area (F)

Elegant

Enclosure, plain

Model	Order no.	A	B	C	c1	c2
EG 1030	32103000	100	54	30	25	2,5
EG 1040	32104000	100	54	40	35	2,5
EG 1230	32123002	125	67	30	24	3
EG 1240	32124002	125	67	40	34	3
EG 1250	32125002	125	67	50	44	3
EG 1530	32153002	150	82	30	24	3
EG 1545	32154502	150	82	45	39	3
EG 1560	32156002	150	82	60	54	3
EG 2030	32203002	200	112	30	24	3
EG 2050	32205002	200	112	50	44	3
EG 2070	32207002	200	112	70	64	3

Scope of delivery: Lid, base, screws

Note: See following pages for accessories.



Enclosure with air vents

Model	Order no.	A	B	C	c1	c2
EG 1030 L	32103010	100	54	30	25	2,5
EG 1040 L	32104010	100	54	40	35	2,5
EG 1230 L	32123012	125	67	30	24	3
EG 1240 L	32124012	125	67	40	34	3
EG 1250 L	32125012	125	67	50	44	3
EG 1530 L	32153012	150	82	30	24	3
EG 1545 L	32154512	150	82	45	39	3
EG 1560 L	32156012	150	82	60	54	3
EG 2030 L	32203012	200	112	30	24	3
EG 2050 L	32205012	200	112	50	44	3
EG 2070 L	32207012	200	112	70	64	3

Scope of delivery: Lid and base with air vents, screws

Note: See following pages for accessories.



Closed enclosure with plain cover

Model	Order no.	A	B	C	c1	c2
EG 1230 B	32123032*	125	67	30	24	3
EG 1240 B	32124032*	125	67	40	34	3
EG 1250 B	32125032*	125	67	50	44	3
EG 1530 B	32153032*	150	82	30	24	3
EG 1545 B	32154532*	150	82	45	39	3
EG 1560 B	32156032*	150	82	60	54	3
EG 2030 B	32203032*	200	112	30	24	3
EG 2050 B	32205032*	200	112	50	44	3
EG 2070 B	32207032*	200	112	70	64	3

Scope of delivery: Lid, base, cover, screws

Note: * = Available on request.

Accessories: See following pages.



Elegant



Enclosure with air vents and cover with air vents

Model	Order no.	A	B	C	c1	c2
EG 1230 L-BL	32123022*	125	67	30	24	3
EG 1240 L-BL	32124022*	125	67	40	34	3
EG 1250 L-BL	32125022*	125	67	50	44	3
EG 1530 L-BL	32153022*	150	82	30	24	3
EG 1545 L-BL	32154522*	150	82	45	39	3
EG 1560 L-BL	32156022*	150	82	60	54	3
EG 2030 L-BL	32203022*	200	112	30	24	3
EG 2050 L-BL	32205022*	200	112	50	44	3
EG 2070 L-BL	32207022*	200	112	70	64	3

Scope of delivery: Lid and base with air vents, cover with air vents, screws

Note: * = Available on request.

Accessories: See following pages.



Closed enclosure with plastic front panels

Model	Order no.	A	B	C	c1	c2
EG 1240 FK	32124042	125	67	40	34	3
EG 1250 FK	32125042	125	67	50	44	3
EG 1545 FK	32154542	150	82	45	39	3
EG 1560 FK	32156042	150	82	60	54	3
EG 2050 FK	32205042	200	112	50	44	3
EG 2070 FK	32207042	200	112	70	64	3

Scope of delivery: Lid, base, 2 front panels, screws

Note: See following pages for accessories.



Enclosure, closed, with membrane keypad area

Model	Order no.	A	B	C	c1	c2
EG 1230 F	32123062	125	67	31	24	3
EG 1240 F	32124062	125	67	41	34	3
EG 1250 F	32125062	125	67	51	44	3
EG 1530 F	32153062	150	82	31	24	3
EG 1545 F	32154563	150	82	46	39	3
EG 1560 F	32156062	150	82	61	54	3
EG 2030 F	32203062	200	112	31	24	3
EG 2050 F	32205062	200	112	51	44	3
EG 2070 F	32207062	200	112	71	64	3

Scope of delivery: Lid, base, screws

Note: See following pages for accessories.

Elegant

Enclosure with air vents and membrane keypad area

Model	Order no.	A	B	C	c1	c2
EG 1230 FL	32123067*	125	67	31	24	3
EG 1240 FL	32124067*	125	67	41	34	3
EG 1250 FL	32125067*	125	67	51	44	3
EG 1530 FL	32153067*	150	82	31	24	3
EG 1545 FL	32154567*	150	82	46	39	3
EG 1560 FL	32156067*	150	82	61	54	3
EG 2030 FL	32203067*	200	112	31	24	3
EG 2050 FL	32205067*	200	112	51	44	3
EG 2070 FL	32207067*	200	112	71	64	3

Scope of delivery: Lid, base with air vents, screws

Note: * = Available on request.

Accessories: See following pages.



Enclosure with air vents, cover with air vents and plastic front panels

Model	Order no.	A	B	C	c1	c2
EG 1240 L-BL-FK	32124057*	125	67	40	34	3
EG 1250 L-BL-FK	32125057*	125	67	50	44	3
EG 1545 L-BL-FK	32154557*	150	82	45	39	3
EG 1560 L-BL-FK	32156057*	150	82	60	54	3
EG 2050 L-BL-FK	32205055*	200	112	50	44	3
EG 2070 L-BL-FK	32207057*	200	112	70	64	3

Scope of delivery: Lid, base with air vents, cover with air vent, 2 front panels, screws

Note: * = Available on request.

Accessories: See following pages.



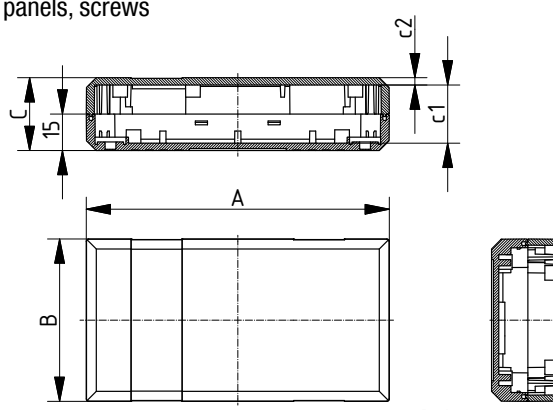
Closed enclosure with cover and plastic front panels

Model	Order no.	A	B	C	c1	c2
EG 1240 B-FK	32124052*	125	67	40	34	3
EG 1250 B-FK	32125052*	125	67	50	44	3
EG 1545 B-FK	32154552*	150	82	45	39	3
EG 1560 B-FK	32156052*	150	82	60	54	3
EG 2050 B-FK	32205052*	200	112	50	44	3
EG 2070 B-FK	32207052*	200	112	70	64	3

Scope of delivery: Lid, base, cover, 2 front panels, screws

Note: * = Available on request.

Accessories: See following pages.



Z-2803244

Elegant accessories



Wall brackets

Model	Order no.	
EG-WL	33000200	
EG-WL D0	33000210	Only for use with EG-D0..

Scope of delivery: 4 wall brackets, screws



Lid fixing set from above for EG 12.. – 20..

Model	Order no.	Note
EG-D0 30	33100000	For EG 1230, 1530, 2030, not for EG..30 F
EG-D0 40	33100010	For EG 1240, not for EG 1240 F
EG-D0 45	33100020	For EG 1545, not for EG 1545 F
EG-D0 50	33100030	For EG 1250, 2050, not for EG..50 F
EG-D0 60	33100040	For EG 1560, not for EG 1560 F
EG-D0 70	33100050	For EG 2070, not for EG 2070 F

Scope of delivery: Screws, threaded inserts

Note: Enclosure must be mechanically processed.



Quick-release fastener for EG 12.. – 20..

Model	Order no.	
EG-SV	33000400	

Scope of delivery: 4 pieces

Note: Not for EG 10...

Press-in tool for EG-SV

Model	Order no.	
EG-WZ	33000405	

Scope of delivery: 1 press-in tool



Front panels, natural-coloured anodised aluminium

Model	Order no.	Note
EG-F 1240	33124000*	For EG 1240 FK
EG-F 1250	33125000*	For EG 1250 FK
EG-F 1545	33154500*	For EG 1545 FK
EG-F 1560	33156000*	For EG 1560 FK
EG-F 2050	33205000*	For EG 2050 FK
EG-F 2070	33207000*	For EG 2070 FK

Scope of delivery: 1 front panel

Note: * = Available on request

Elegant accessories

Mounting panels

Model	Order no.	Note
EG-M 10	33010000*	For EG 10..
EG-M 12	33012000*	For EG 12..
EG-M 15	33015000*	For EG 15..
EG-M 20	33020000*	For EG 20..

Scope of delivery: 1 mounting panel

Note: * = Available on request



Covers for keyhole suspension

Model	Order no.
EG-AK	33000100

Scope of delivery: 1 set = 2 pieces



Screw cover

Model	Order no.
EG-SA	33000300

Scope of delivery: 4 pieces



Rubber feet

Model	Order no.	Colour	Note
EG-GF	25002100	Grey	Foam, for E 406-E 435; for EG...

Scope of delivery: 4 pieces





Element / Universal

The special geometry of the enclosure half-shells offers easy mounting in the interior

- 12 or 3 sizes respectively
- With air vents and/or recessed membrane keypad area, depending on design
- S version with snap lock
- A version with aluminium front panel in lid
- Depending on the model, lid screwing systems from above and quick-release fasteners are available



Colour	Lid: light grey, similar to RAL 7035; base graphite grey, similar to RAL 7024; special colours on request
Protection class	Plain: IP 40/DIN EN 60529; with air vents: IP 30/DIN EN 60529
Enclosure material	PS; for details see Technical Information

F version: With recessed area of 1 mm in upper section for mounting of membrane keypads

VL version: With vertical, injection-moulded air vents

A version: With aluminium front panel in the cover area of the lid



Element



Enclosure, plain

Model	Order no.	A	B	C	c1
E 406	05406000	65	50	30	24
E 408	05408000	65	50	45	39
E 410	05410002	100	50	25	19
E 420	05420002	100	50	40	34
E 430	05430002	120	65	40	34
E 435	05435000	120	65	65	59
E 440	05440002	150	80	55	49
E 445	05445000	150	80	80	74
E 450	05450002	188	110	70	64
E 460	05460000	188	110	100	94
E 470	05470000*	188	110	120	114

Scope of delivery: Lid, base, 4 fixing screws

Note: * = Available on request.

Accessories: See following pages.



Enclosure, closed, with membrane keypad area

Model	Order no.	A	B	C	c1
E 406 F	05406700*	65	50	31	24
E 410 F	05410700*	100	50	26	19
E 420 F	05420700*	100	50	41	34
E 430 F	05430700*	120	65	41	34
E 440 F	05440700*	150	80	56	49
E 450 F	05450700*	188	110	71	64

Scope of delivery: Lid, base, 4 fixing screws

Note: * = Available on request.

Accessories: See following pages.



Enclosure with air vents

Model	Order no.	A	B	C	c1
E 406 VL	05406900	65	50	30	24
E 440 VL	05440200*	150	80	55	49
E 450 VL	05450200	188	110	70	64

Scope of delivery: Lid, base, 4 fixing screws

Note: * = Available on request.

Accessories: See following pages.



Enclosure with air vents and membrane keypad area

Model	Order no.	A	B	C	c1
E 410 F VL	05410800*	100	50	26	19
E 420 F VL	05420800*	100	50	41	34
E 430 F VL	05430800*	120	65	41	34
E 440 F VL	05440800*	150	80	56	49
E 450 F VL	05450800*	188	110	71	64

Scope of delivery: Lid, base, 4 fixing screws

Note: * = Available on request.

Accessories: See following pages.

Element

Enclosure with snap lock

Model	Order no.	A	B	C	c1
E 434 S	05434000	188	110	40	34

Scope of delivery: Lid, base, moulded-on snap lock

Note: See following pages for accessories.



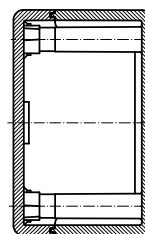
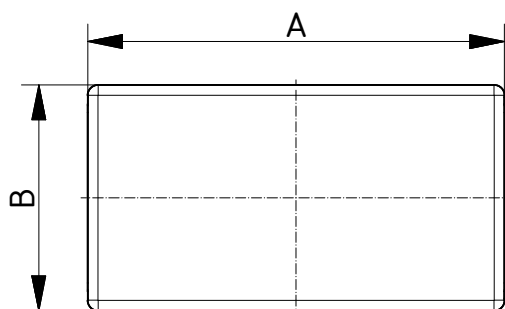
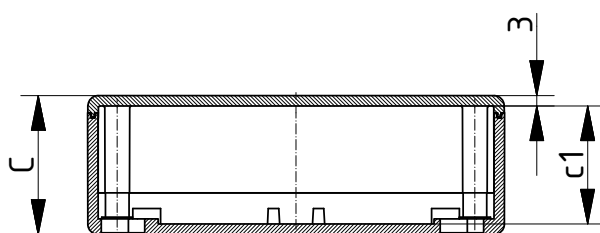
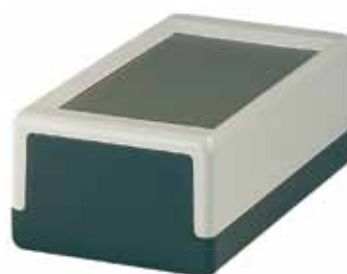
Enclosure with front panel

Model	Order no.	A	B	C	c1
E 430 A	05430500*	120	65	40	33

Scope of delivery: Lid with aluminium front panel, base, 4 fixing screws

Note: * = Available on request.

Accessories: See following pages.



Z-2803245

Element accessories



Wall brackets

Model	Order no.	Note
E-WL	25001500	For E 406-E 450
E-WL	25001600*	For E 460-E 470

Scope of delivery: 1 set = 4 pieces

Note: * = Available on request



Quick-release fastener

Model	Order no.	Note
E-SV	25001700	For E 435, E 440 VL, E 445, E 450 VL, E 460, E 470

Scope of delivery: 1 set = 4 pieces



Mounting panels

Model	Order no.	Note
E-M	25000100*	For E 410-E 420
E-M	25000200*	For E 430-E 435
E-M	25000400*	For E 440-E 445
E-M	25000300*	For E 450-E 470, for E 434 S

Scope of delivery: 1 mounting panel

Note: * = Available on request



Lid assembly kit from above

Model	Order no.	Note
E-D0	25000500*	For E 430
E-D0	25000600*	For E 435
E-D0	25000700*	For E 440
E-D0	25000800*	For E 445
E-D0	25000910*	For E 450
E-D0	25001000*	For E 460
E-D0	25001100*	For E 470

Scope of delivery: Lid assembly kit from above, 4 screws including inserts for the base



Rubber feet

Model	Order no.	Colour	Note
EG-GF	25002100	Grey	Foam, for E 406-E 435; for EG...
E-F	25002200	White	Rubber, 67 Shore, for E 440-E 470, for E 434 S

Scope of delivery: 1 set = 4 pieces

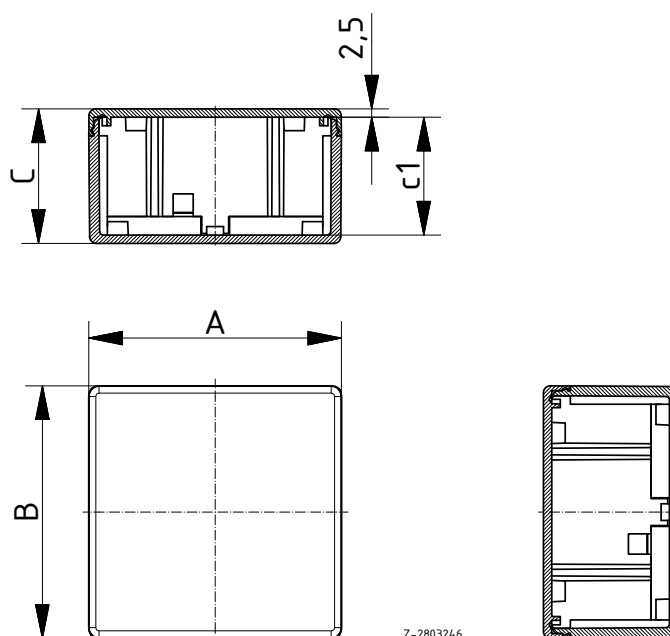
Universal

Enclosure with snap lock

Model	Order no.	A	B	C	c1
U 50	06050000	50	50	30	25
U 75	06075000	75	75	40	35
U 100	06100000	100	100	60	55

Scope of delivery: Lid, base

Note: If required, the locking function can be permanently fixed by means of screws.



Z-2803246



Alu-Topline

The enclosure's profile technology allows optimal adaptation to individual requirements.

- 4 basic sizes
- 2 heights
- More dimensions on request
- Horizontally-divided profiles for easy mounting
- Recessed membrane keypad area in the lid
- Mounting grooves inside
- "Invisible" wall fitting as accessory



Colour	Natural-coloured anodised aluminium profile; plastic lid quartz grey, similar to RAL 7039 or graphite grey, similar to RAL 7024; special colours on request
Protection class	IP 40/DIN EN 60529; IP 54/DIN EN 60529 as an option
Enclosure material	Extruded profiles: Al Mg Si 0.5 anodised; plastic lid: ABS; for details see Technical Information

The divided enclosure profile offers easy, fast mounting of the electronics and other components, as they can be fixed optimally in the various grooves and screw channels. The lid, with its recessed area for mounting membrane keypads, can also be turned by 180° for table and wall use with the same assemblies. The smooth rear surfaces are ideal for fitting interfaces, e.g. USB or Sub-D connectors. On the ATPH 1865 version, these interfaces can also be fitted on the front. Plastic lids in two different colours are available as profile ends. If ingress protection IP 54 is required, in addition to seal AT...DI (available as an accessory) a round cord seal must be factory-fitted in the enclosure profile. Special lengths are available on request.



Alu-Topline



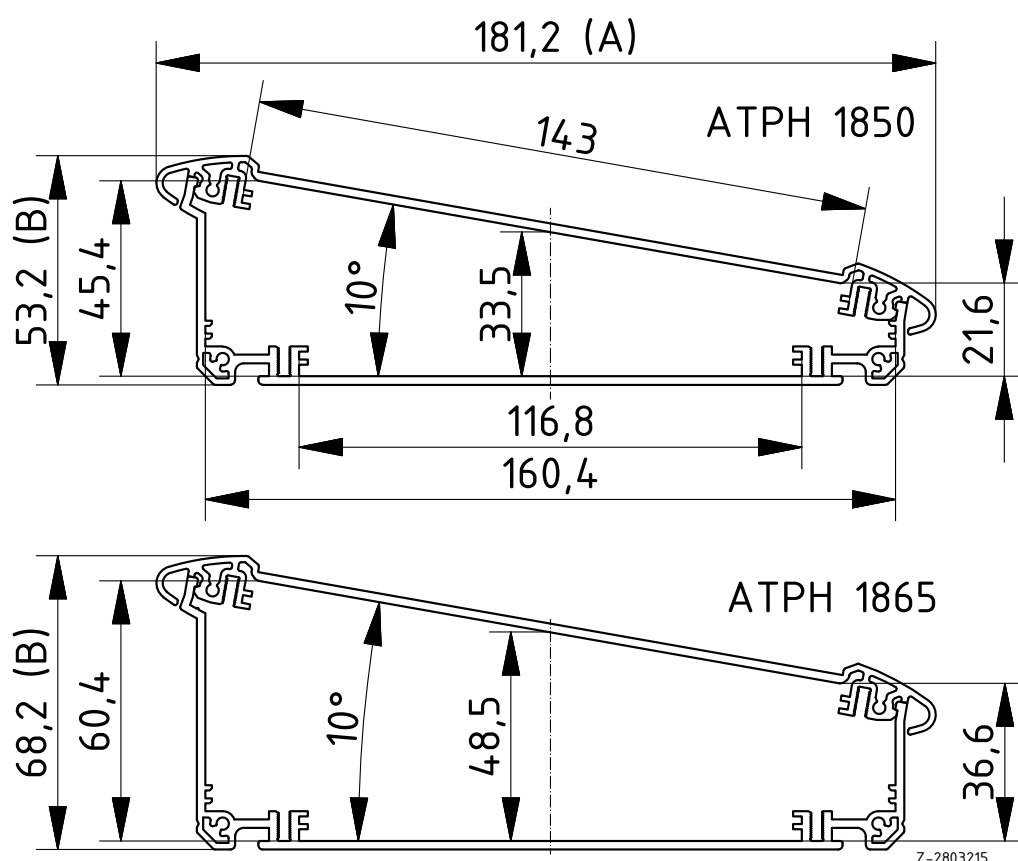
Enclosure profiles horizontally divided

Model	Order no.	A	B	C
ATPH 1850-0150	92850150	181,2	53,2	150
ATPH 1850-0200	92850200	181,2	53,2	200
ATPH 1850-0250	92850250	181,2	53,2	250
ATPH 1850-0300	92850300	181,2	53,2	300
ATPH 1865-0150	92865150	181,2	68,2	150
ATPH 1865-0200	92865200	181,2	68,2	200
ATPH 1865-0250	92865250	181,2	68,2	250
ATPH 1865-0300	92865300	181,2	68,2	300

Scope of delivery: Enclosure profile, 2 parts

Note: See following pages for accessories.

Special lengths on request.



Z-2803215

ATPH accessories

End cover

Model	Order no.	Colour	Note
ATD 1850-7024	92050024	Graphite grey	For ATPH 1850
ATD 1850-7039	92050039	Quartz grey	For ATPH 1850
ATD 1865-7024	92065024	Graphite grey	For ATPH 1865
ATD 1865-7039	92065039	Quartz grey	For ATPH 1865

Scope of delivery: 2 lids, 8 screws, 8 screw covers



Seals for ingress protection IP 54

Model	Order no.	Note
AT 1850 DI	92050000	For ATPH 1850
AT 1865 DI	92065000	For ATPH 1865

Scope of delivery: 5 sets of sponge rubber seals (r. / l.)



Wall fastening

Model	Order no.	Note
AT 1800-0150 WB	92800150	For ATPH-0150
AT 1800-0200 WB	92800200	For ATPH-0200
AT 1800-0250 WB	92800250	For ATPH-0250
AT 1800-0300 WB	92800300	For ATPH-0300

Scope of delivery: 1 wall profile, 2 slotted set screws

Note: Special lengths on request.



Universal wall fitting

Model	Order no.	Colour	Note
AT 0150-7024 UWB	92815024	Graphite grey	For ATPH-0150
AT 0200-7024 UWB	92820024	Graphite grey	For ATPH-0200
AT 0250-7024 UWB	92825024	Graphite grey	For ATPH-0250
AT 0300-7024 UWB	92830024	Graphite grey	For ATPH-0300

Scope of delivery: Profile, 2 side flanges (complete), screws, covers

Note: Can be swivelled in 10° stages. Enclosure processing on request.



Insulating strip for PCB mounting on the profile

Model	Order no.
AT-IS 00020	92000100

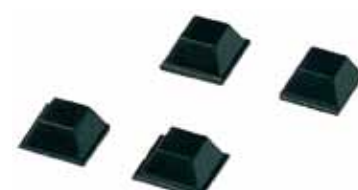
Scope of delivery: 5 insulating strips



Rubber feet

Model	Order no.	Colour	Note
AB – GF	84006700	Black	Polyurethane, 65-75 Shore

Scope of delivery: 4 rubber feet





Ultrapult

This series of console enclosures offers maximum mounting space in a classic design

- 4 sizes
- Recessed, closed console area
- Open console area for a separate front panel
- Aluminium or plastic rear panels



Colour	Light grey, similar to RAL 7035; screw covers, brackets and feet agate grey, similar to RAL 7038; special colours on request
Protection class	IP 40/DIN EN 60529
Enclosure material	ABS; for details see Technical Information

Integrated M3 threaded inserts allow the mounting parallel to the console area of circuit boards or mounting panels. Plug-in panels for the back of the open enclosure are available as accessories. The optional wall brackets allow the enclosures to be mounted flat on a wall.





UMP... version: Closed console area with 1 mm recessed area for mounting membrane keypads



UMP...FP version: Open console area with continuous internal seal (front panel as accessory)

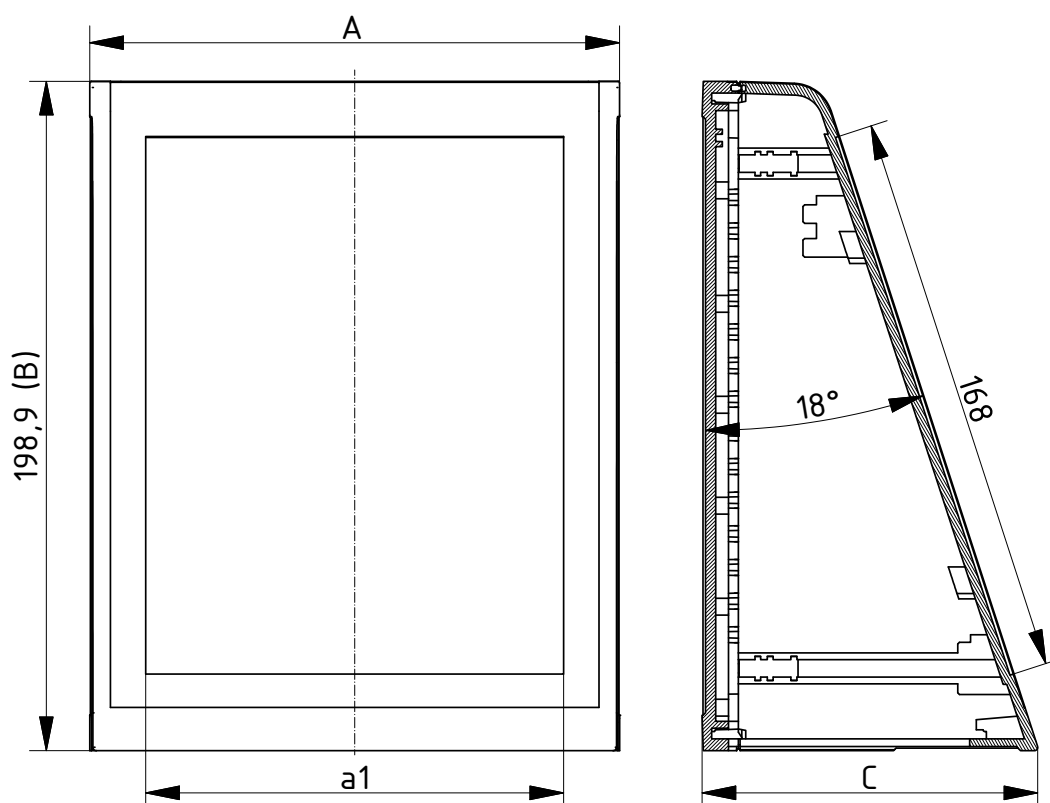
Ultrapult

Enclosure with membrane keypad area

Model	Order no.	A	B	C	a1
UMP 32014	45320140	157,5	198,9	100,1	124,2
UMP 62014	45620140	290,9	198,9	100,1	257,6
UMP 32018	45320180	157,5	198,9	120,4	124,2
UMP 62018	45620180	290,9	198,9	120,4	257,6

Scope of delivery: Lid and base, 4 screw covers, 4 rubber feet, 4 screws

Note: See following pages for accessories.



Z-2803272

Ultrapult

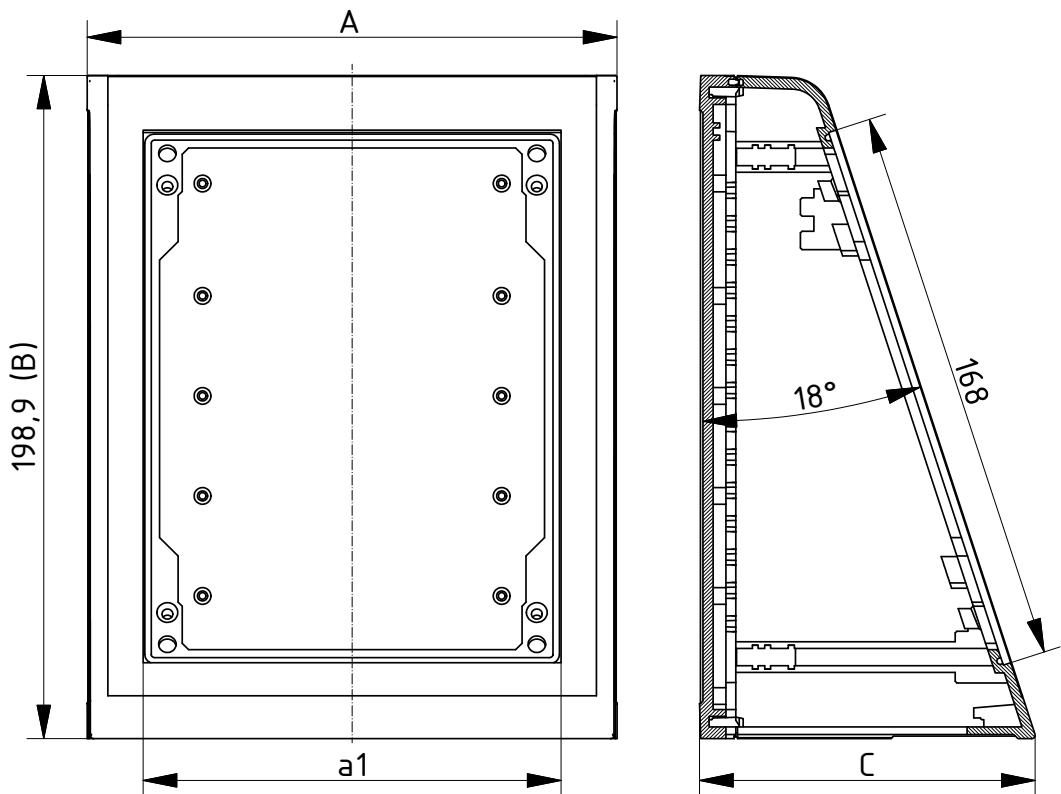


Enclosure with open console area

Model	Order no.	A	B	C	a1
UMP 32014 FP	45320145	157,5	198,9	100,1	124,2
UMP 62014 FP	45620145	290,9	198,9	100,1	257,6
UMP 32018 FP	45320185	157,5	198,9	120,4	124,2
UMP 62018 FP	45620185	290,9	198,9	120,4	257,6

Scope of delivery: Lid and base, 4 screw covers, 4 rubber feet, 4 screws

Note: See following pages for accessories.



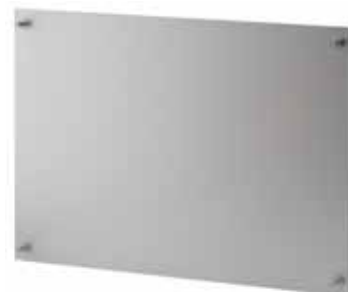
Z-2803273

Ultrapult accessories

Front panels for the open console area, natural-coloured anodised aluminium

Model	Order no.	Note
FPP 32000	29320180	For UMP 32014 FP + UMP 32018 FP
FPP 62000	29620180	For UMP 62014 FP + UMP 62018 FP

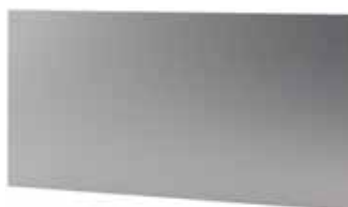
Scope of delivery: 1 front panel, fixing material



Rear panels, natural-coloured anodised aluminium

Model	Order no.	Note
FP 30014	56031400	Elegant accessories
FP 60014	56061400	For UMP 62014 (FP)
FP 30018	56031800	For UM 3..09 + 1x AB 02.09 (L) and for UMP 32018 (FP)
FP 60018	56061800	For UM 6..09 + 1x AB 02.09 (L) and for UMP 62018 (FP)

Scope of delivery: 1 rear panel



Rear panels, light grey plastic

Model	Order no.	Note
FPK 30014	56031410	Elegant accessories
FPK 60014	56061410	For UMP 62014 (FP)
FPK 30018	56031810	For UM 3..09 + 1x AB 02.09 (L) and for UMP 32018 (FP)
FPK 60018	56061810	For UM 6..09 + 1x AB 02.09 (L) and for UMP 62018 (FP)

Scope of delivery: 1 rear panel



Wall brackets for UMP 32014 / 62014

Model	Order no.
UM-WLN	56002100

Scope of delivery: 4 wall brackets



Wall brackets for UMP 32018 / 62018

Model	Order no.
UM-WLH	56002000

Scope of delivery: 4 wall brackets





Elegant-Pult

This enclosure series stands out thanks to its compact design

- 3 sizes
- Versions with display screen or continuous membrane keypad area
- Plastic rear panel
- Integrated wall fitting
- Separate wall brackets as an option



Colour	Lid: light grey, similar to RAL 7035; base: agate grey, similar to RAL 7038; special colours on request
Protection class	IP 40/DIN EN 60529
Enclosure material	PS; for details see Technical Information

Bosses are provided in the lid and base for the mounting of circuit boards or mounting panels with self-tapping screws. In model series EG 20.. the positioning of the bosses is specifically designed for Euro card format (100 x 160 mm) with connectors.

As an alternative, slots parallel to the rear panel are also provided. Wall mounting is by means of break-out keyholes which can be closed from inside by using covers if required.

The 1 mm recessed operating area is ideal for the use of membrane keypads.



Elegant-Pult



Enclosure with continuous membrane keypad area

Model	Order no.	A	B	C	c1	c2	c3
EG 1240 P	32124070	67	125	40	34	18,9	7°
EG 1545 P	32154570	82	150	45	39	19,2	8°
EG 2060 P	32206010	112	200	64	58	27,8	9°

Scope of delivery: Lid and base, 4 fixing screws, rear panel

Note: See following pages for accessories.

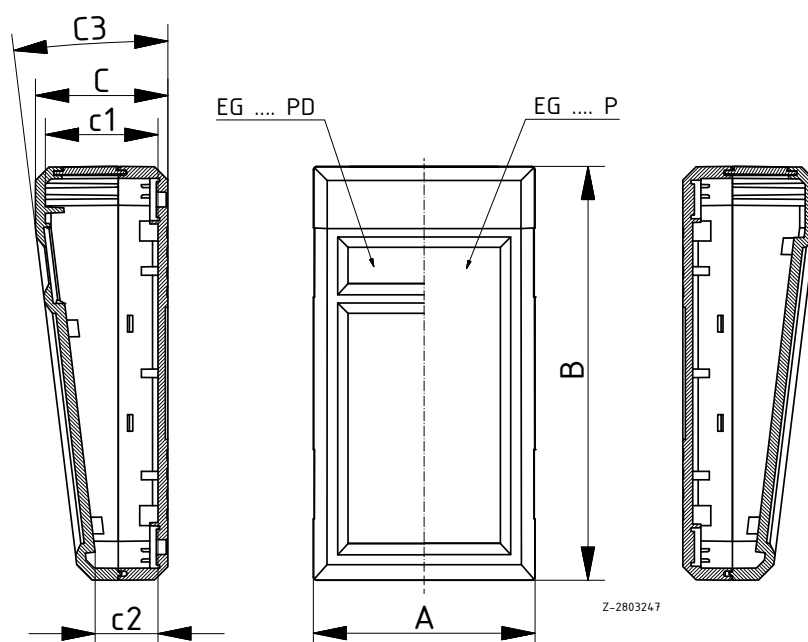


Enclosure with display screen and membrane keypad area

Model	Order no.	A	B	C	c1	c2	c3
EG 1240 PD	32124080	67	125	40	34	18,9	7°
EG 1545 PD	32154580	82	150	45	39	19,2	8°
EG 2060 PD	32206000	112	200	64	58	27,8	9°

Scope of delivery: Lid and base, 4 fixing screws, rear panel, display screen

Note: See following pages for accessories.



Elegant-Pult accessories

Mounting panel, laminated paper

Model	Order no.	Note
EG-M 12	33012000*	For EG 12..
EG-M 15	33015000*	For EG 15..
EG-M 20	33020000*	For EG 20..

Scope of delivery: 1 mounting panel

Note: * = Available on request



Screw cover

Model	Order no.
EG-SA	33000300

Scope of delivery: 4 pieces



Covers for keyhole suspension

Model	Order no.
EG-AK	33000100

Scope of delivery: 1 set = 2 pieces



Rubber feet

Model	Order no.	Colour	Note
EG-GF	25002100	Grey	Foam, for E 406-E 435; for EG...

Scope of delivery: 4 pieces



Wall brackets

Model	Order no.
EG-WL	33000200

Scope of delivery: 4 wall brackets, screws

Note: For mounting, please order 4 screws (order no. 59000256).





Futura / Portas / Bopult

These desktop enclosures
are distinguished by their
ergonomic design

- 11 variants
- Depending on the version, the lids can be turned by 180°
- T 900 with collapsible display area



Colour	Depending on the model: light grey, similar to RAL 7035 or black, similar to RAL 9005
Protection class	Depending on the model: IP 40/DIN EN 60529 or IP 54/DIN EN 60529
Enclosure material	ABS; for details see Technical Information

- All **F versions**, and the **BP 810** enclosure, are equipped with a 1 mm continuous recessed area for fitting membrane keypads.
- The **RO versions** have a plug-in aluminium panel on the rear. This allows easy processing and the separate fitting of various interfaces.
- The **T 900** enclosure has a stepless tip-up display section in the lid
- The **T 890/893** enclosures are fitted with a steel sheet baseplate



Futura



Desktop enclosure with membrane keypad area

Model	Order no.	A	B	C	b1	c1	Note
T 888 F	47888200	275	195	48	7°	36,3	IP 40 *
T 889 F	47889200	132	170	44,9	7°	34,7	IP 40 *
T 898	47898000	151	195	48	7°	36,3	IP 40 *
T 898 F	47898200	151	195	48	7°	36,3	IP 40 *
T 899	47899001	125	150	30,7	6°	22,8	IP 54

Scope of delivery: Lid and base, screws, rubber feet

Note: * = IP 54 available on request

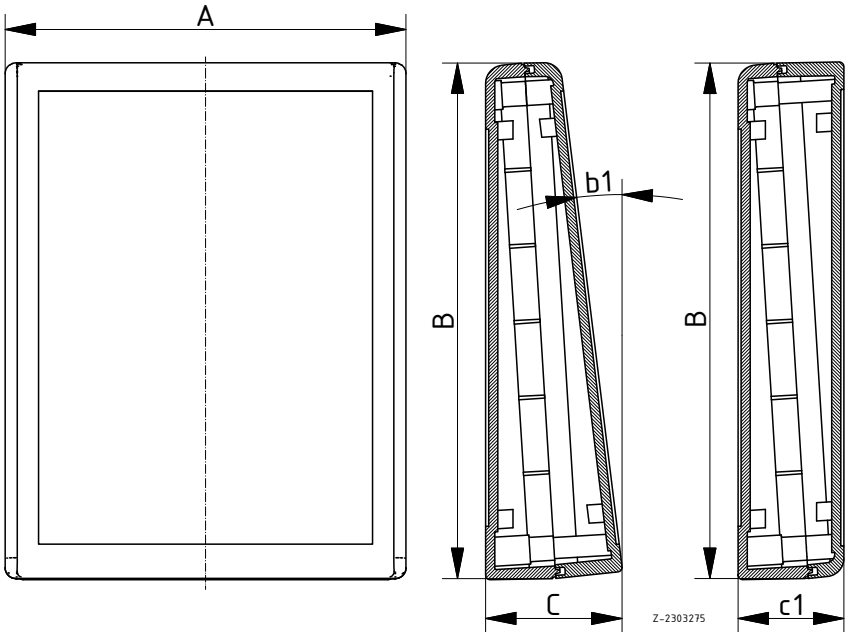


Desktop enclosure with membrane keypad area and plug-in rear panel, natural-coloured anodised aluminium

Model	Order no.	A	B	C	b1	Note
T 898 R0	47898100*	151	195	48	7°	IP 40
T 898 F-R0	47898300	151	195	48	7°	IP 40

Scope of delivery: Lid and base, screws, aluminium rear panel, rubber feet

Note: * = Available on request

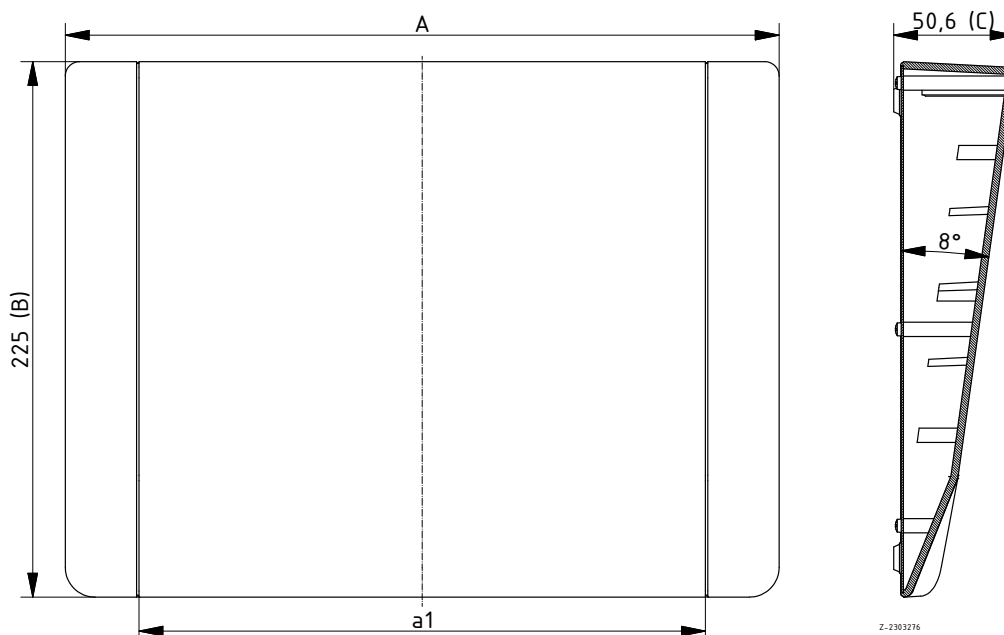


Futura

Desktop enclosure with ball-of-the-thumb rest and separate sheet steel baseplate

Model	Order no.	A	B	C	a1	Note
T 890	47890001	300	225	50,6	238	IP 40
T 893	47893001	500	225	50,6	438	IP 40

Scope of delivery: Lid, baseplate, screws, rubber feet



Z-2303276

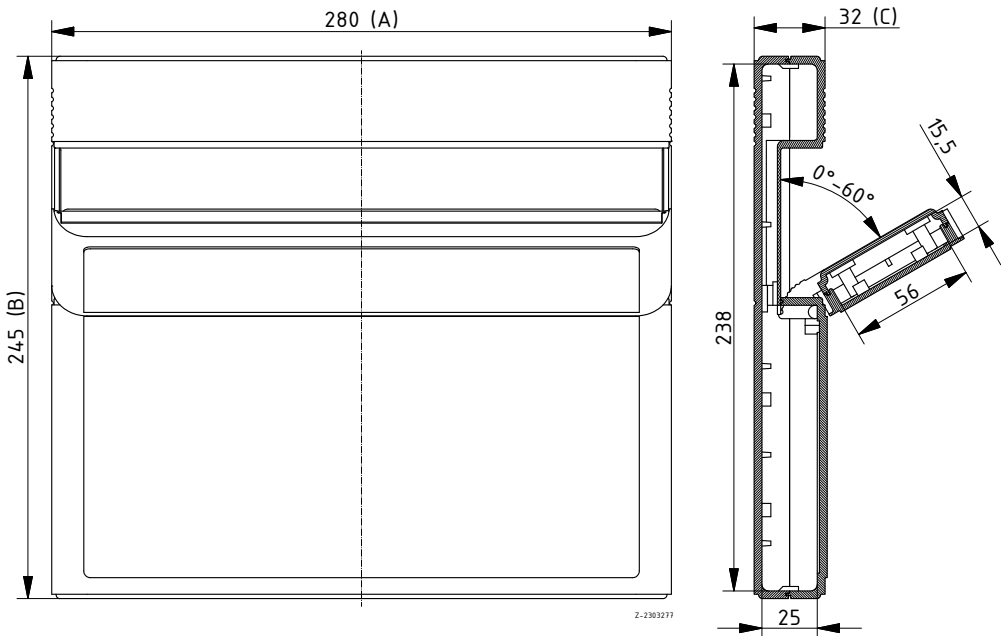


Portas



Desktop enclosure with hinged display section

Model	Order no.	A	B	C	Note
T 900	47900000	280	245	32	IP 40
Scope of delivery: Lid and base including display section, screws					



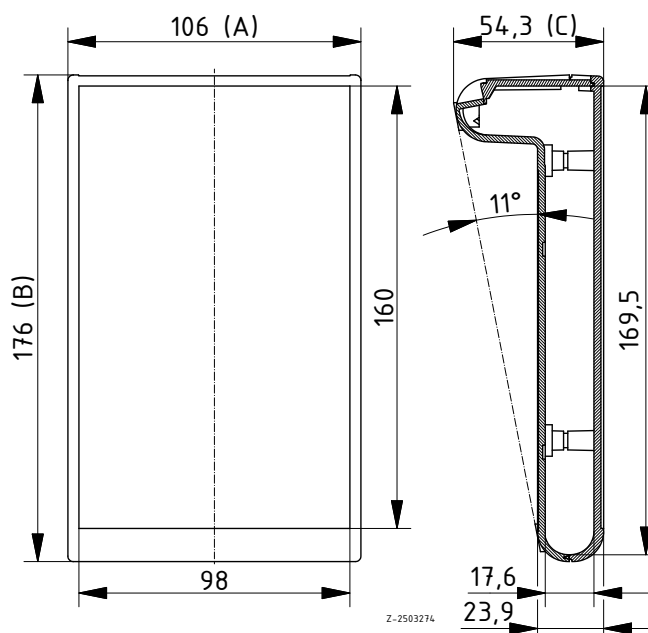
Bopult

Console enclosure

Model	Order no.	A	B	C	Note
BP 810	45810000	106	176	54,3	IP 40

Scope of delivery: Lid and base, fixing screws, front panel, rubber feet

Note: The PCB is clamped between lid and base





CombiCard 1000-3000 / CombiSet 500

The modular system for this series of enclosures allows optimal integration of electronic components

- 4 widths
- The depth can be varied by combining the components (not with CC 500)
- Various fronts
- Optional rear element with separate terminal compartment (not with CC 500)
- Definable access protection
- Installation of 19" components possible
- Comprehensive range of accessories



Colour	Base elements light grey, similar to RAL 7035; front lid FD...G crystal-clear, front and rear elements graphite grey, similar to RAL 7024; special colours on request
Protection class	Up to IP 65/DIN EN 60529, depending on the version
Enclosure material	ABS; PC (only FD...G), seal made of EPDM; for details see Technical Information

When selecting CombiCard system parts, please note that all front, base and rear elements can be individually combined. The enclosure parts can be connected with special hinges to allow them to swivel. All front and rear parts can also be mounted directly without base elements. Mounting of the selected configuration is by means of tie bars. We recommend that you have processing and mounting of the system parts carried out in our factory. More information can be found on the following pages.





Front lid FD ... G, crystal-clear, also available in graphite grey



Open front frame



Closed front frame



Open front frame with protective door



Basic element BC... in 2 depths



Basic element BC ... L with air vents



Basic element for control panel mounting



Rear lid RD ... K with terminal compartment;
rear lid with large terminal compartment RD...
GK



Front lid hinge SC 1230 with FD ... G and BC ...



Various hinge possibilities for the system components



ZA tie bar required for mounting of the enclosure parts



19" internal constructions for backplanes or connectors acc. to DIN EN 60603-2



CC 500



CC 500 TK with hinged front, IP 65



CC 500 NG control panel mounting enclosure

CombiCard 1000-3000 fronts



Front lid, IP 65

Model	Order no.	A	B	C	a1	a2
FD 1000	19002700	133,4	138	34,1	126,2	106,2
FD 2000	19002800	184,2	138	34,1	177	157
FD 3000	19002900	280,72	138	34,1	273,52	253,52

Scope of delivery: Front lid, screws

Note: Hinges, lock and knurled screws as accessories.

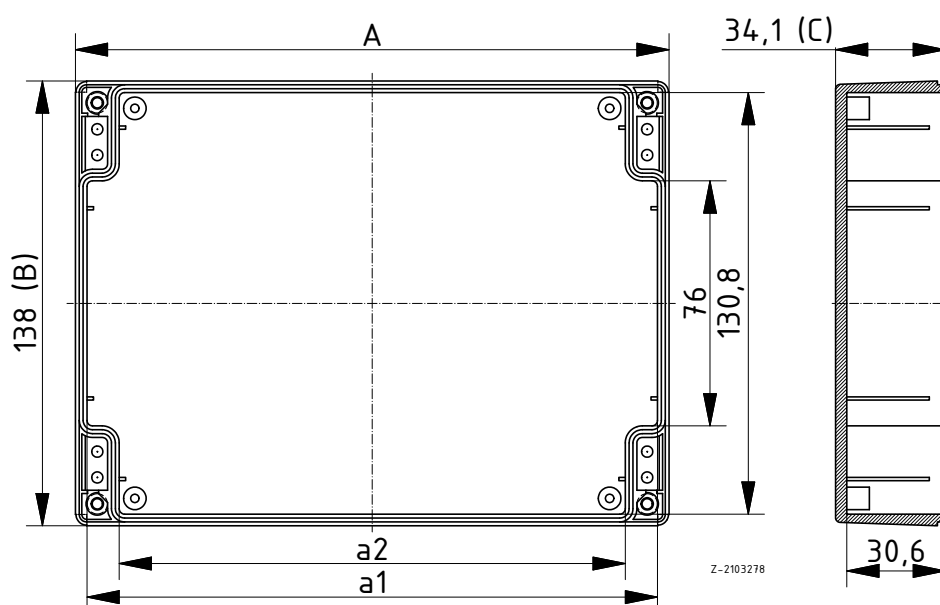


Front lid, crystal-clear, IP 65

Model	Order no.	A	B	C	a1	a2
FD 1000 G	19003000	133,4	138	34,1	126,2	106,2
FD 2000 G	19003100	184,2	138	34,1	177	157
FD 3000 G	19003200	280,72	138	34,1	273,52	253,52

Scope of delivery: Front lid, screws

Note: Hinges, lock and knurled screws as accessories.



CombiCard 1000-3000 fronts

Closed front frame for accommodating membrane keypads, IP 65

Model	Order no.	A	B	C	a1	a2
FR 1000	19002400	133,4	138	33,6	126,2	99,2
FR 2000	19002500	184,2	138	33,6	170	150
FR 3000	19002600	280,72	138	33,6	273,52	246,52

Scope of delivery: Closed front frame, screws

Note: Hinges, lock and knurled screws as accessories.



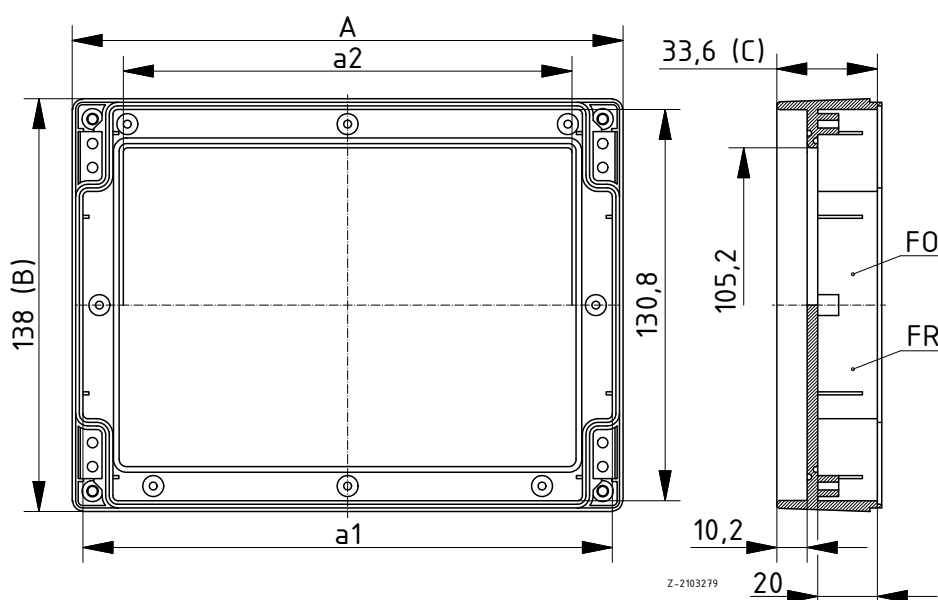
Open front frame, IP 65 / IP 40

Model	Order no.	A	B	C	a1	a2
F0 1000	19002100	133,4	138	33,6	126,2	99,2
F0 2000	19002200	184,2	138	33,6	177	150
F0 3000	19002300	280,72	138	33,6	273,52	246,52

Scope of delivery: Open front frame, screws, mounting material and seal for front panel FP...AI

Note: Hinges, lock, knurled screws and front panels as accessories.

IP 65 with FP...AI; IP 40 with FP...AA.



CombiCard 1000-3000 fronts



Open front frame with protective door, IP 65 / IP 20

Model	Order no.	A	B	C	a1	a2
FCT 1000 FP	19005700	133,4	138	50	127,4	99,2
FCT 2000 FP	19006100	184,2	138	50	178,2	150
FCT 3000 FP	19006500	280,72	138	50	274,72	246,52

Scope of delivery: Open front frame with snap-on protective door, screws, mounting material and seal for front panel FP...AI

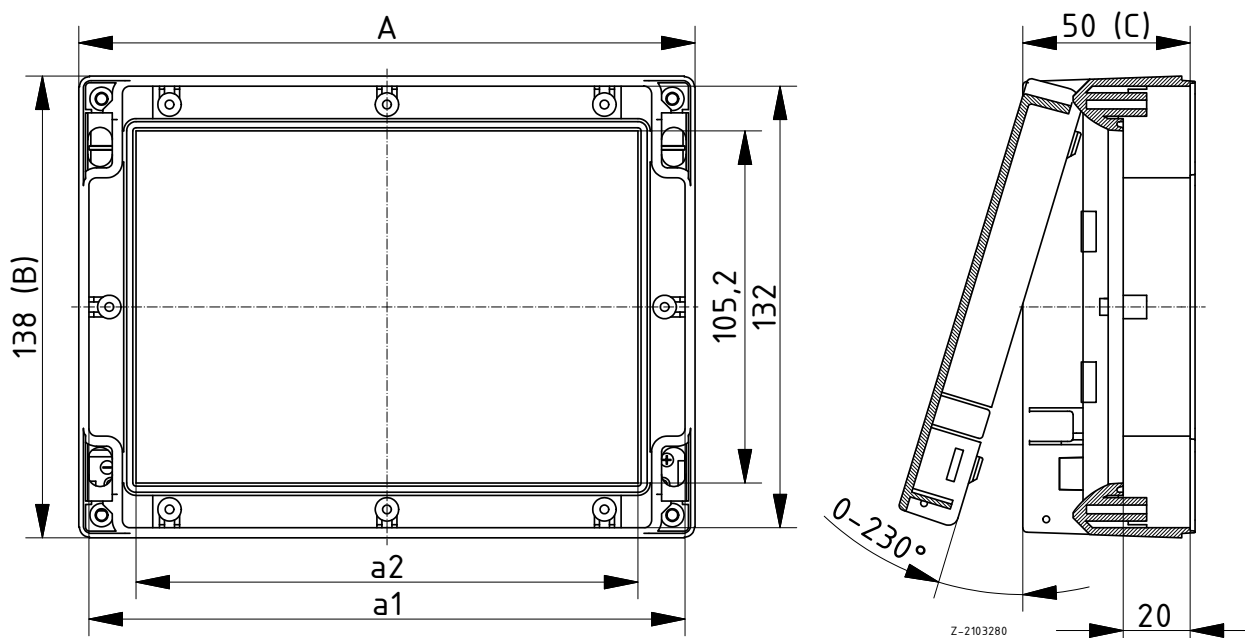
Note: Front panels as accessories.
IP 65 for connection module; IP 20 for protective door.

Cylinder catch

Model	Order no.
SCHLO-101	21008300

Scope of delivery: 1 lock, 2 keys

Note: 2 cylinder catches are needed for secure locking.



CombiCard 1000-3000 basic elements

Basic element, IP 65

Model	Order no.	A	B	C	a1	a2
BC 1000	19000100	133,4	138	87,5	126,2	106,2
BC 2000	19000200	184,2	138	87,5	177	157
BC 3000	19000300	280,72	138	87,5	273,52	253,52

Scope of delivery: Base element with seal



Basic element with air vents, IP 30

Model	Order no.	A	B	C	a1	a2
BC 1000 L	19000400	133,4	138	87,5	126,2	106,2
BC 2000 L	19000500	184,2	138	87,5	177	157
BC 3000 L	19000600	280,72	138	87,5	273,52	253,52

Scope of delivery: Base element with air vents, without seal



Basic element, low, IP 65

Model	Order no.	A	B	C	a1	a2
BC 1000 N	19000110	133,4	138	51	126,2	106,2
BC 2000 N	19000230	184,2	138	51	177	157
BC 3000 N	19000310	280,72	138	51	273,52	253,52

Scope of delivery: Base element with seal

Note: A tie bar set ZA...N must be used in connection with a basic element BC...N. If two or more BC...N elements are used in a configuration, a special tie bar – available on request – must be used.



CombiCard 1000-3000 basic elements



Basic element for control panel mounting, IP 65

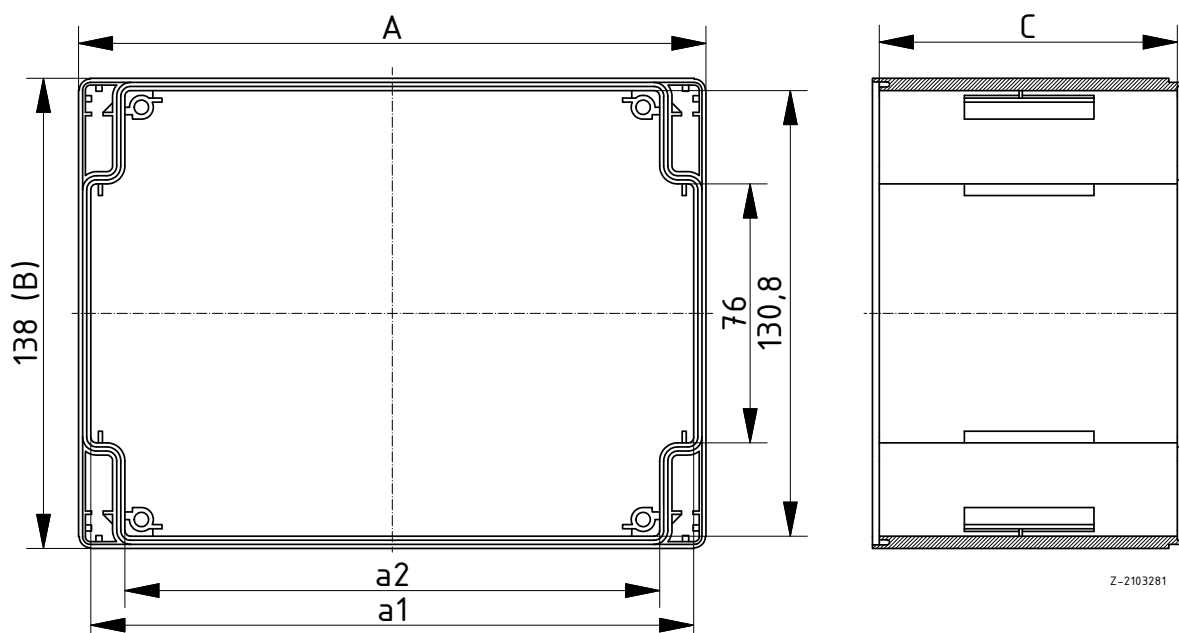
Model	Order no.	A	B	C	a1	a2
BC 1000 NG	19001900	133,4	138	87,5	126,2	106,2
BC 2000 NG	19002000	184,2	138	87,5	177	157
BC 3000 NG	19001910	280,72	138	87,5	273,52	253,52

Scope of delivery: Base part with seal including integrated assembly kit for control panel mounting

Note: The degree of protection refers to the enclosure, not to the place of installation.

DIN IEC 61554 dimensions

BC 1000 NG:	144 x 144 mm
BC 2000 NG:	192 x 144 mm
BC 3000 NG:	288 x 144 mm



Z-2103281

CombiCard 1000-3000 rear lid

Rear lid, low, IP 65

Model	Order no.	A	B	C	a1	a2	c1
RD 1000	19003900	133,4	138	29,6	126,2	106,2	26,1
RD 2000	19004000	184,2	138	29,6	177	157	26,1
RD 3000	19004100	280,72	138	29,6	273,52	253,52	

Scope of delivery: Rear lid with seal, screws



Rear lid, high, IP 65

Model	Order no.	A	B	C	a1	a2	c1
RD 1000 H	19004200	133,4	138	48	126,2	106,2	44,5
RD 2000 H	19004300	184,2	138	48	177	157	44,5
RD 3000 H	19004400	280,72	138	48	273,52	253,52	

Scope of delivery: Rear lid with seal, screws

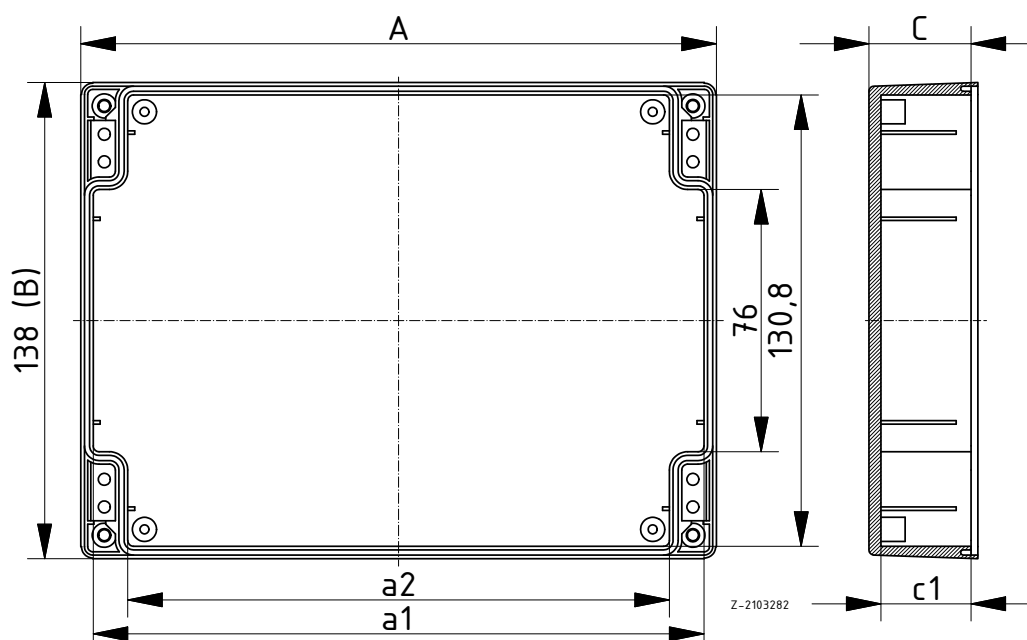


Rear lid, high, with hinges on both sides, IP 65

Model	Order no.	A	B	C	a1	a2	c1
RD 1000 HSC	19004500*	133,4	138	48	126,2	106,2	44,5
RD 2000 HSC	19004600*	184,2	138	48	177	157	44,5
RD 3000 HSC	19004700*	280,72	138	48	273,52	253,52	44,5

Scope of delivery: Rear lid with seal including moulded-on hinges on both sides and mounting material for attaching to the front-fitted system component

Note: * = Available on request. We recommend factory mounting.



CombiCard 1000-3000 rear lid



Rear lid with terminal compartment, IP 65

Model	Order no.	A	B	C	a1	a2	a3
RD 1000 K	19004800	133,4	193	48	126,2	106,2	104,2
RD 2000 K	19004900	184,2	193	48	177	157	155
RD 3000 K	19005000	280,72	193	48	273,52	253,52	251,52

Scope of delivery: Rear lid, terminal compartment lid, seals, screws



Rear lid with large terminal compartment, IP 65

Model	Order no.	A	B	C	a1	a2	a3
RD 1000 G-K	19131100	133,4	193	48	126,2	106,2	104,2
RD 2000 G-K	19231100	184,2	193	48	177	157	155
RD 3000 G-K	19331100	280,72	193	48	273,52	253,52	251,52

Scope of delivery: Rear lid, terminal compartment lid, seals, screws



Rear lid with terminal compartment and hinges on both sides, IP 65

Model	Order no.	A	B	C	a1	a2	a3
RD 1000 KSC	19005100	133,4	193	48	126,2	106,2	104,2
RD 2000 KSC	19005200	184,2	193	48	177	157	155
RD 3000 KSC	19005300	280,72	193	48	273,52	253,52	251,52

Scope of delivery: Rear lid, terminal compartment lid, seals, screws, hinge elements and mounting material for attaching to the front-fitted system component

Note: we recommend factory mounting.

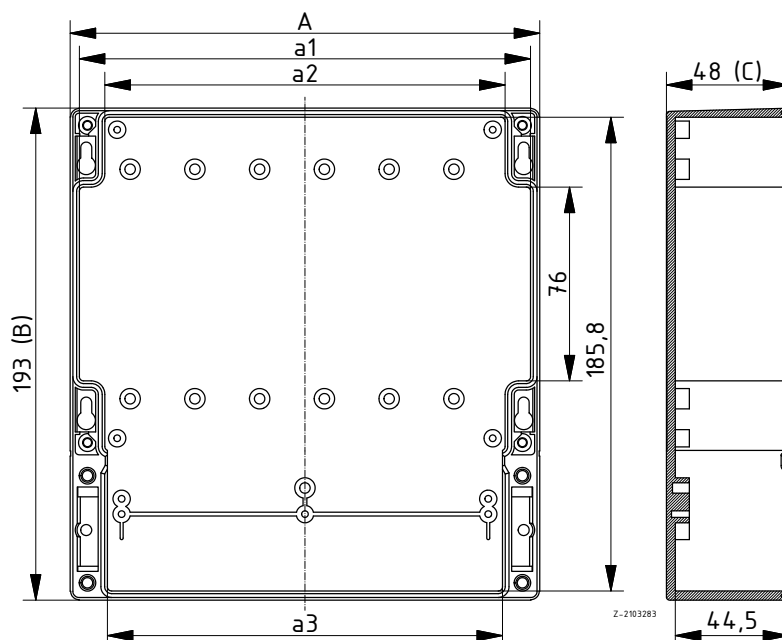
CombiCard 1000-3000 rear lid

Rear lid with large terminal compartment and hinges on both sides, IP 65

Model	Order no.	A	B	C	a1	a2	a3
RD 1000 G-KSC	19131200	133,4	193	48	126,2	106,2	104,2
RD 2000 G-KSC	19231200	184,2	193	48	177	157	155
RD 3000 G-KSC	19331200	280,72	193	48	273,52	253,52	251,52

Scope of delivery: Rear lid, terminal compartment lid, seals, screws, hinge elements and mounting material for attaching to the front-fitted system component

Note: we recommend factory mounting.



CombiCard 1000-3000 hinges



Front lid hinge, light grey, for fronts and basic elements or fronts and rear lids

Model	Order no.
SC 1230	39500000

Scope of delivery: 1 hinge

Note: Opening angle approx. 135°.

Not for use with BC...NG.



Front lid hinge, light grey, for fronts and basic elements for control panel mounting

Model	Order no.
SC 1230 NG	39501000

Scope of delivery: 1 hinge

Note: Opening angle approx. 100°. Mounting on the BC...NG must take place in the factory.



Rear lid hinge, graphite grey, for basic elements and rear lid

Model	Order no.
SC 1230 R	39503000

Scope of delivery: 1 hinge

Note: Opening angle approx. 135°.

When mounted on a wall, can only be used with lock. Use tie bars in same way as with rear-mounted double hinge.



Rear lid hinges on both sides, graphite grey, for basic elements and rear lid

Model	Order no.
DSC 1230	39502000

Scope of delivery: 1 hinge

Note: Opening angle approx. 135°.

We recommend factory-processing of the hinge-fitting of the system component positioned in front.
Price on request.

CombiCard 1000-3000 tie bar

Tie bar for mounting the fronts, basic elements (height 87.5 mm) and rear lids

Model	Order no.	Note
ZA 0050	39900000	For 1 front element, 1 rear element, with hinge on one side
ZA 0100	39901000	For 1 front element and 1 rear element
ZA 0200	39902000	For 1 rear element, 1 base element and 1 aluminium front panel
ZA 0300	39903000*	For 1 rear element, 1 base element and 1 aluminium front panel, with rear hinge on both sides
ZA 0400	39904000	For 1 rear element, 1 base element and 1 front element
ZA 0500	39905000	For 1 rear element, 1 base element and 1 front element, with front hinge on one side
ZA 0600	39906000	For 1 rear element, 1 base element and 1 front element, with rear hinge on both sides
ZA 0700	39907000	For 1 rear element, 1 base element and 1 front element, with rear hinge on both sides and front hinge on one side
ZA 0800	39908000	For 1 rear element, 2 base elements and 1 aluminium front panel or 19" IB
ZA 0900	39909000*	For 1 rear element, 2 base elements and 1 aluminium front panel or 19" IB with rear hinge on both sides
ZA 0010	39910000	For 1 rear element, 2 base elements and 1 front element
ZA 0110	39911000	For 1 rear element, 2 base elements and 1 front element, with front hinge on one side
ZA 0120	39912000*	For 1 rear element, 2 base elements and 1 front element, with rear hinge on both sides
ZA 0130	39913000	For 1 rear element, 2 base elements and 1 front element, with rear hinge on both sides and front hinge on one side
ZA 0140	39914000*	For 1 rear element, 3 base elements and 1 aluminium front panel or 19" IB
ZA 0150	39915000*	For 1 rear element, 3 base elements and 1 aluminium front panel or 19" IB with rear hinge on both sides
ZA 0160	39916000*	For 1 rear element, 3 base elements and 1 front element
ZA 0170	39917000	For 1 rear element, 3 base elements and 1 front element, with front hinge on one side
ZA 0180	39918000*	For 1 rear element, 3 base elements and 1 front element, with rear hinge on both sides
ZA 0190	39919000*	For 1 rear element, 3 base elements and 1 front element, with rear hinge on both sides and front hinge on one side

Scope of delivery: 1 tie bar set

Note: * = Available on request.

If only 87.5 mm high basic elements are contained in the configuration, a tie bar set without "N" must be used.



CombiCard 1000-3000 tie bar



N tie bars for mounting of the fronts, basic elements BC...N and rear lid

Model	Order no.	Note
ZA 0200 N	39902100	For 1 rear element, 1 base element and 1 aluminium front panel
ZA 0300 N	39903100*	For 1 rear element, 1 base element and 1 aluminium front panel, with rear hinge on both sides
ZA 0400 N	39904100	For 1 rear element, 1 base element and 1 front element
ZA 0500 N	39905100	For 1 rear element, 1 base element and 1 front element, with front hinge on one side
ZA 0600 N	39906100	For 1 rear element, 1 base element and 1 front element, with rear hinge on both sides
ZA 0700 N	39907100	For 1 rear element, 1 base element and 1 front element, with rear hinge on both sides and front hinge on one side
ZA 0800 N	39908100	For 1 rear element, 2 base elements and 1 aluminium front panel or 19" IB
ZA 0900 N	39909100*	For 1 rear element, 2 base elements and 1 aluminium front panel or 19" IB with rear hinge on both sides
ZA 0010 N	39910100	For 1 rear element, 2 base elements and 1 front element
ZA 0110 N	39911100	For 1 rear element, 2 base elements and 1 front element, with front hinge on one side
ZA 0120 N	39912100*	For 1 rear element, 2 base elements and 1 front element, with rear hinge on both sides
ZA 0130 N	39913200	For 1 rear element, 2 base elements and 1 front element, with rear hinge on both sides and front hinge on one side
ZA 0140 N	39914100*	For 1 rear element, 3 base elements and 1 aluminium front panel or 19" IB
ZA 0150 N	39915100*	For 1 rear element, 3 base elements and 1 aluminium front panel or 19" IB with rear hinge on both sides
ZA 0160 N	39916100*	For 1 rear element, 3 base elements and 1 front element
ZA 0170 N	39917100	For 1 rear element, 3 base elements and 1 front element, with front hinge on one side
ZA 0180 N	39918100*	For 1 rear element, 3 base elements and 1 front element, with rear hinge on both sides
ZA 0190 N	39919100*	For 1 rear element, 3 base elements and 1 front element, with rear hinge on both sides and front hinge on one side

Scope of delivery: 1 tie bar set

Note: * = Available on request.

If the configuration includes a BC...N basic element, a tie bar set "N" is needed. If two or more BC...N elements are included, a special tie bar – available on request – must be used.

CombiCard 1000-3000 accessories

External front panels for FO..., natural-coloured anodised aluminium, IP 40

Model	Order no.
FP 1000 AA	39103000*
FP 2000 AA	39104000*
FP 3000 AA	39105000*

Scope of delivery: 1 front panel, fixing material

Note: * = Available on request.



Internal front panels for FO..., natural-coloured anodised aluminium, IP 65

Model	Order no.
FP 1000 AI	39100000
FP 2000 AI	39101000
FP 3000 AI	39102000

Scope of delivery: 1 front panel



Front panels for BC..., natural-coloured anodised aluminium, IP 40

Model	Order no.
FA 1000	39106000*
FA 2000	39107000*
FA 3000	39108000*

Scope of delivery: 1 front panel, fixing material

Note: * = Available on request.

Please use special tie bar sets.



Internal front panels for BC... in connection with 1 front, natural-coloured anodised aluminium

Model	Order no.
FA 1000 I	39109000*
FA 2000 I	39110000*
FA 3000 I	39111000*

Scope of delivery: 1 front panel, fixing material

Note: * = Available on request. Same protection class as front element.



Mounting panel for rear lid

Model	Order no.
MR 1000	39700000
MR 2000	39701000
MR 3000	39702000

Scope of delivery: 1 mounting panel, fixing material



CombiCard 1000-3000 accessories



Mounting panel for rear lid with terminal compartment

Model	Order no.	
MR 1000 K	39703000	
MR 2000 K	39704000	
MR 3000 K	39705000	

Scope of delivery: 1 mounting panel, fixing material



Wall frame for low rear lid

Model	Order no.	
WR 1000	39604000	
WR 2000	39605000	
WR 3000	39606000	

Scope of delivery: Wall frame, 4 screws



Wall frame for high rear lid and rear lid with terminal compartment

Model	Order no.	
WR 1000 H	39607000	
WR 2000 H	39608000	
WR 3000 H	39609000	

Scope of delivery: Wall frame, 4 screws



Tip-up feet

Model	Order no.	Note
AB 1230	39603000	Including 4 sheet metal screws

Scope of delivery: 2 collapsible tip-up feet, 2 fixed tip-up feet

Note: Enclosure processing is required.



Handle

Model	Order no.	
HS 1000	39601020	
HS 2000	39602020	
HS 3000	39603020	

Scope of delivery: 1 handle

Note: Cannot be used in combination with a hinge in the handle area.

CombiCard 1000-3000 accessories

Cylinder lock for FD...(G) with SC 1230 (NG) or rear lid with SC 1230 R

Model	Order no.
Z 1230	39806000

Scope of delivery: 1 lock, 2 keys

Note: Enclosure processing and mounting of the counter piece must take place in the factory.



Knurled screws for fronts or rear lids

Model	Order no.
RS 1230	39805000

Scope of delivery: 1 set = 2 pieces

Note: As an alternative to the standard screw.



Hinge to prevent loss of the terminal compartment lid

Model	Order no.
SC G-K	39500600

Scope of delivery: 1 set = 2 pieces

Note: Only for use with RD...GK(SC).



Combicard 1000-3000

19" accessories



19" internal construction for connectors DIN EN 60603-2 with blind front panels for basic element without front

Model	Order no.	Note
IB 1000.12	39200000	20 HP
IB 2000.12	39201000	30 HP
IB 3000.12	39202000	49 HP

Scope of delivery: 1 extension set

Note: Please order tapped strip GS... for front panel fixing separately.
Please use special tie bar sets.

19" internal construction for backplane with blind front panels for basic element without front

Model	Order no.	Note
IB 1000 PI	39206000	20 HP
IB 2000 PI	39207000	30 HP
IB 3000 PI	39208000	49 HP

Scope of delivery: 1 extension set

Note: Please order tapped strip GS... for front panel fixing separately.
Please use special tie bar sets.

19" internal construction for connectors DIN EN 60603-2 if a front lid is used

Model	Order no.	Note
IL 1000.12	39209000	20 HP
IL 2000.12	39210000	30 HP
IL 3000.12	39211000	49 HP

Scope of delivery: 1 extension set

Note: Please order tapped strip GS... for front panel fixing separately.

19" internal construction for backplane if a front lid is used

Model	Order no.	Note
IL 1000 PI	39215000	20 HP
IL 2000 PI	39216000	30 HP
IL 3000 PI	39217000	49 HP

Scope of delivery: 1 extension set

Note: Please order tapped strip GS... for front panel fixing separately.

19" front module rails for fixing 19" part front panels with blind front panels for basic element without front

Model	Order no.	Note
IB 1000 F	39218000	20 HP
IB 2000 F	39219000	30 HP
IB 3000 F	39220000	49 HP

Scope of delivery: 1 extension set

Note: Please order tapped strip GS... for front panel fixing separately.

Combicard 1000-3000

19" accessories

Tapped strips for 19" internal constructions and front module rails

Model	Order no.	Note
GS 1000	39800000	20 HP
GS 2000	39801000	30 HP
GS 3000	39802000	49 HP

Scope of delivery: 1 set = 2 pieces

Card guides for 19" internal constructions

Model	Order no.
KF 1230	39302000

Scope of delivery: PU = 10 pieces



Card retainers for card guides KF 1230

Model	Order no.
KS 1230	39301000

Scope of delivery: PU = 10 pieces



CombiSet CC 500

CC 500

Model

CC 500

Order no.

19050000

Note

12 HP useful width

Scope of delivery: Base element and rear element, upper and lower guide blocks, tapped strips, screws

Note: See following pages for accessories.



CC 500 with hinged front, crystal-clear, IP 65

Model

CC 500 TK

Order no.

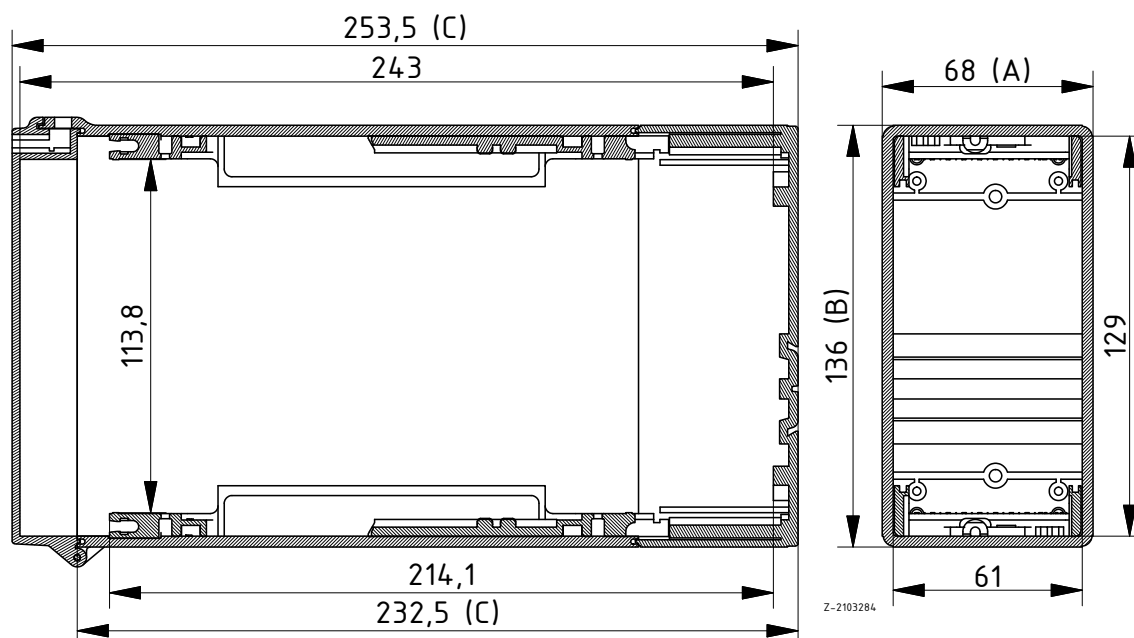
19050101

Note

12 HP useful width

Scope of delivery: Base element and rear element, upper and lower guide blocks, crystal-clear front door, hinged with lock, tapped strips, screws

Note: See following pages for accessories.



CombiSet CC 500

CC 500 for control panel mounting

Model	Order no.	Note
CC 500 NG	19050200	12 HP useful width

Scope of delivery: Base element with moulded-on mounting frame, rear element, upper and lower guide blocks, retaining clasps, tapped strips, screws

Note: See following pages for accessories.

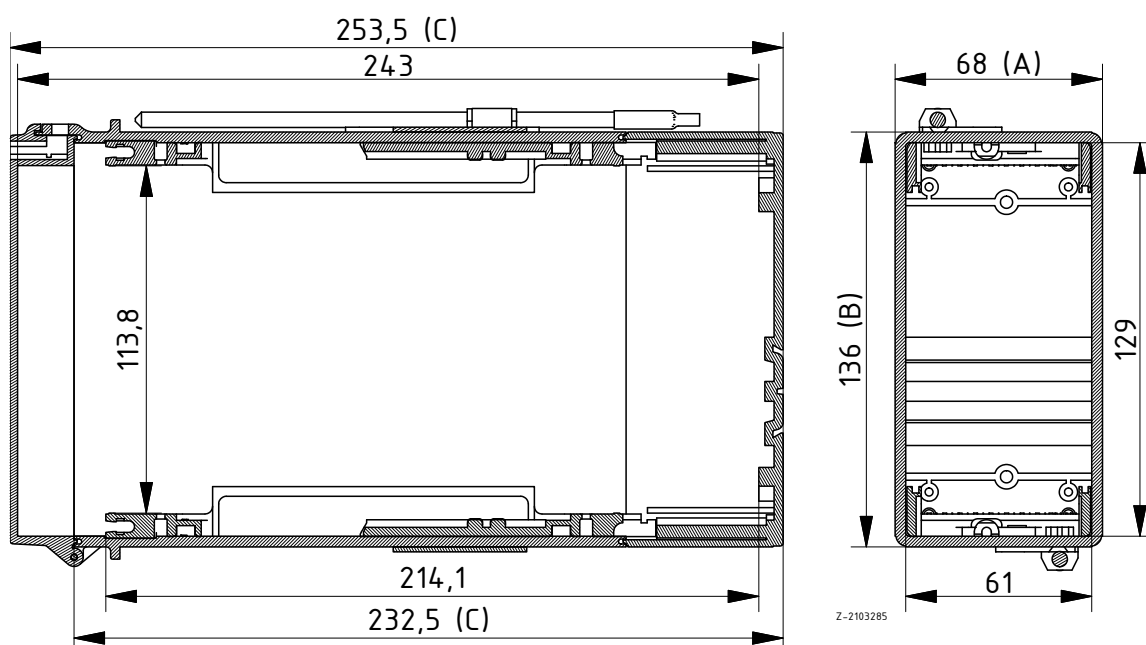


CC 500 for control panel mounting, with hinged front, crystal-clear, IP 65

Model	Order no.	Note
CC 500 NGTK	19050301	12 HP useful width

Scope of delivery: Base element with moulded-on mounting frame, rear element, upper and lower guide blocks, crystal-clear front door, hinged with lock, retaining clasps, tapped strips, screws

Note: See following pages for accessories.



CombiSet CC 500 accessories



Wall frame for CC 500

Model	Order no.
CC 500 WR	39001000

Scope of delivery: Wall frame, 4 screws



Snap foot for top hat rails DIN EN 60715 TH 35 for insertion into the grooves in the rear lid

Model	Order no.
CC 500 TS	39005000

Scope of delivery: 1 rail snap foot



Cylinder catch for CC 500 TK / NGTK

Model	Order no.
SHLO-302	21008310

Scope of delivery: 1 cylinder catch



Mounting set for connectors DIN EN 60603-2 (previously DIN 41612)

Model	Order no.
CC 500 MS	39004000

Scope of delivery: Mounting set

Note: Mounting takes place on the integrated guide blocks.

CombiSet CC 500 accessories

Card guides for the pre-fitted card guide blocks

Model	Order no.
KF 1230	39302000

Scope of delivery: 10 pieces



Card retainers for card guides KF 1230

Model	Order no.
KS 1230	39301000

Scope of delivery: 10 pieces





CombiCard 5000-7000

This modular enclosure system offers adaptability and protection class IP 66

- 3 widths
- The depth can be varied by combining the components
- Easy mounting of the system components
- Hinge and access position freely selectable in the whole system
- Various fronts
- Optional rear element with separate terminal compartment (also on both sides)
- Definable access protection
- Installation of 19" components possible
- Comprehensive range of accessories



Colour	Lateral trims, front and base elements light grey, similar to RAL 7035; front lid FD...G, crystal-clear, rear elements agate grey, similar to RAL 7038; special colours on request
Protection class	IP 66/DIN EN 60529; with air vents IP 30/DIN EN 60529
Enclosure material	ABS; PC (only FD...G), seal made of CR; for details see Technical Information

All front, base and rear elements can be combined in a basic size. The combination of “front with rear lid” can be created directly, without a basic element. With a suitable enclosure size, the base elements with air vents can be positioned according to the convection requirements. The integrated hinged quick-release fasteners allows left-hand or right-hand opening between every system component. Each hinged quick-release fastener can be protected against unauthorized access by lock bolts or lead seals. The optimal way to close the fronts is by using a cylinder catch.

19“ subracks acc. to DIN EN 60297-3-101 can be fitted in suitable enclosure configurations. The necessary 19“ accessories are in the Interzoll Modul / Interzoll chapter.



CombiCard 5000-7000 fronts



Front lid for accommodating membrane keypads

Model	Order no.	A	B	C	a1	a2
FD 5000	79002800	175,7	146,7	34	128,6	131,8
FD 6000	79002900	226,5	146,7	34	179,4	182,6
FD 7000	79003000	323	146,7	34	275,9	279,1

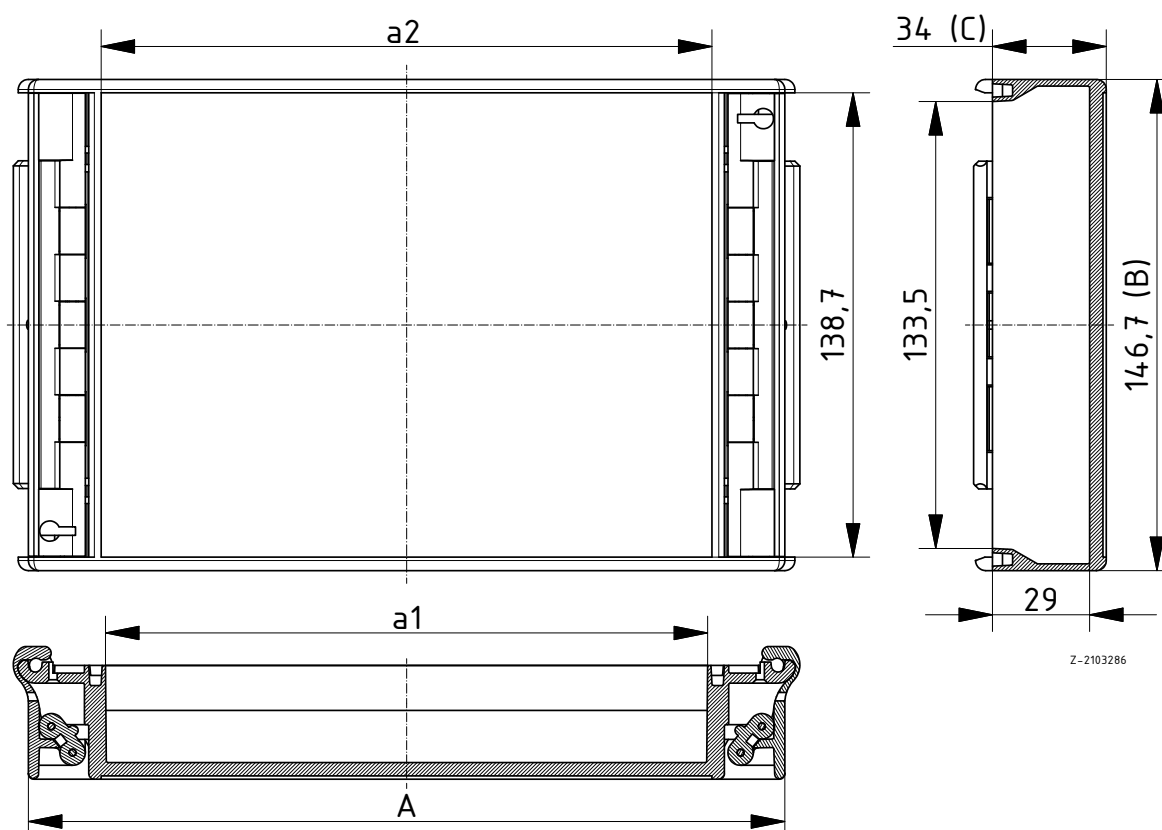
Scope of delivery: Front lid with seal, 2 mounted locks, 1 blind plug (to close the lock opening on the opening side), 1 catch (to close the lock opening and one-time definition of the hinge side on the front lid)



Front lid, crystal-clear

Model	Order no.	A	B	C	a1	a2
FD 5000 G	79003100	175,7	146,7	34	128,6	131,8
FD 6000 G	79003200	226,5	146,7	34	179,4	182,6
FD 7000 G	79003300	323	146,7	34	275,9	279,1

Scope of delivery: Front lid with seal, 2 mounted locks, 1 blind plug (to close the lock opening on the opening side), 1 catch (to close the lock opening and one-time definition of the hinge side on the front lid)



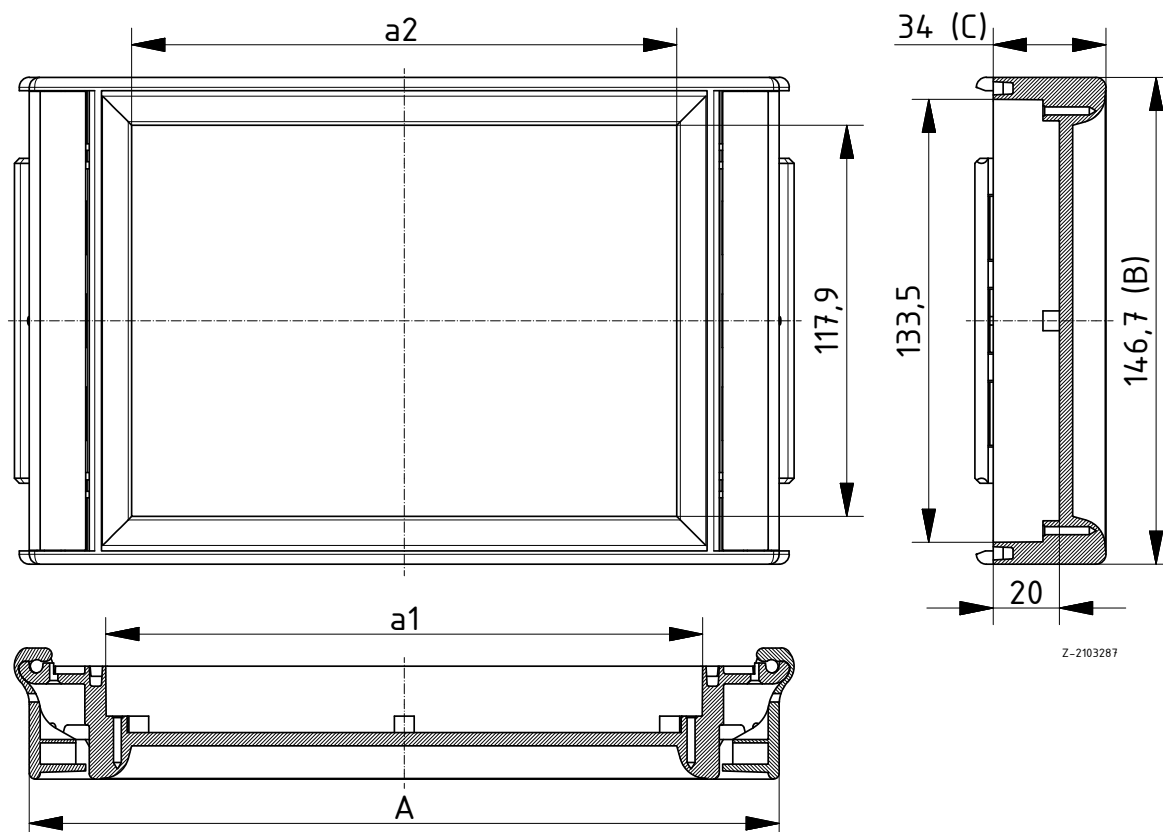
CombiCard 5000-7000 fronts

Closed front frame for accommodating membrane keypads, screw-on

Model	Order no.	A	B	C	a1	a2
FR 5000	79003700	175,7	146,7	34	128,6	113,6
FR 6000	79003800	226,5	146,7	34	179,4	164,4
FR 7000	79003900	323	146,7	34	275,9	260,9

Scope of delivery: Front frame with seal, 2 snap-on covers, 4 fixing screws

Note: If required, retrofitting of a hinged quick-release fastener is possible using accessory SV 5670.



CombiCard 5000-7000 fronts

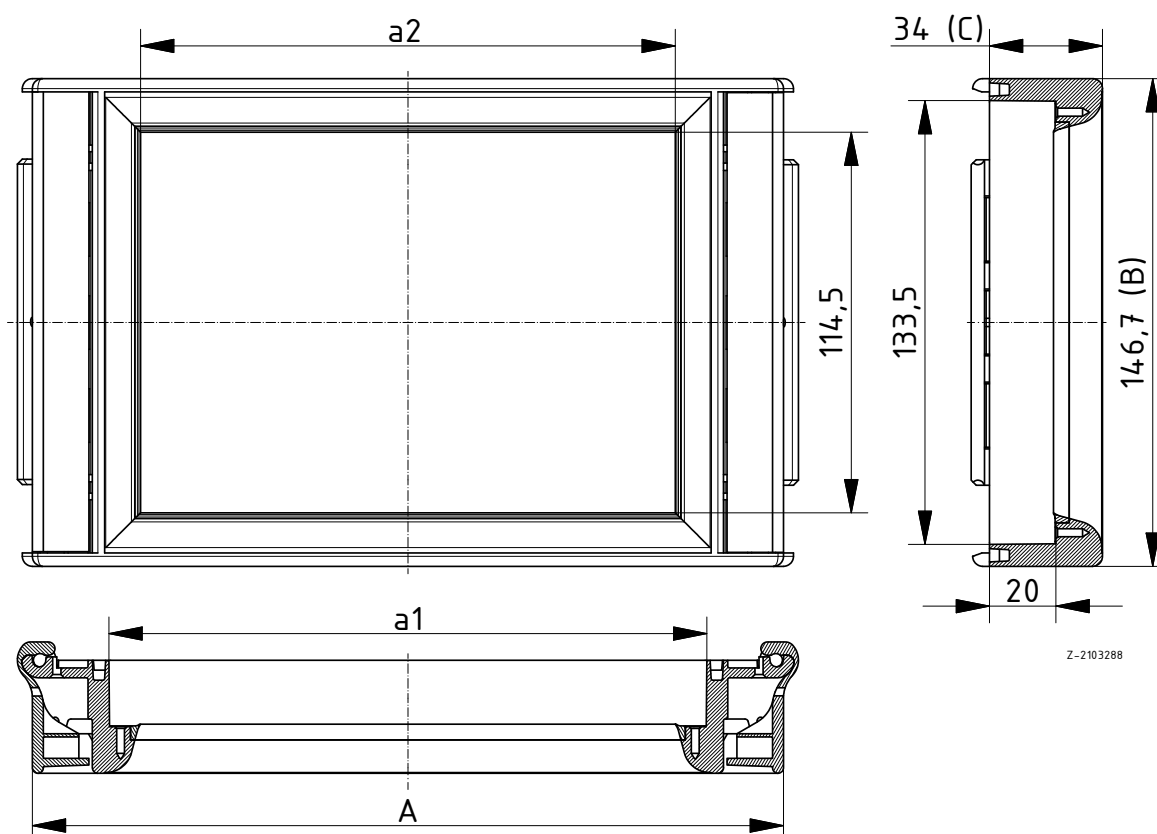


Open front frame with integrated seal, screw-on

Model	Order no.	A	B	C	a1	a2
F0 5000	79003400	175,7	146,7	34	128,6	109,6
F0 6000	79003500	226,5	146,7	34	179,4	160,4
F0 7000	79003600	323	146,7	34	275,9	256,9

Scope of delivery: Front frame with seal, 2 snap-on covers, 4 fixing screws, 10 front panel fixing screws

Note: On request, retrofitting with a hinged quick-release fastener is possible with accessory SV 5670. Front panels as accessories



CombiCard 5000-7000 basic elements

Basic element 0.5 (51.51 mm deep)

Model	Order no.	A	B	C	a1
BC 5000 -0,5	79001000	175,7	146,7	51,51	127,1
BC 6000 -0,5	79001100	226,5	146,7	51,51	177,9
BC 7000 -0,5	79001200	323	146,7	51,51	274,4

Scope of delivery: Base element with seal, 2 mounted locks



Basic element 1 (88.25 mm deep)

Model	Order no.	A	B	C	a1
BC 5000 -1	79001600	175,7	146,7	88,25	127,1
BC 6000 -1	79001700	226,5	146,7	88,25	177,9
BC 7000 -1	79001800	323	146,7	88,25	274,4

Scope of delivery: Base element with seal, 2 mounted locks



Basic element 1.5 (139.76 mm deep)

Model	Order no.	A	B	C	a1
BC 5000 -1,5	79002200	175,7	146,7	139,76	127,1
BC 6000 -1,5	79002300	226,5	146,7	139,76	177,9
BC 7000 -1,5	79002400	323	146,7	139,76	274,4

Scope of delivery: Base element with seal, 2 mounted locks



Basic element 0.5 (51.51 mm deep) with air vents

Model	Order no.	A	B	C	a1
BC 5000 L-0,5	79001300	175,7	146,7	51,51	127,1
BC 6000 L-0,5	79001400	226,5	146,7	51,51	177,9
BC 7000 L-0,5	79001500	323	146,7	51,51	274,4

Scope of delivery: Base element with air vents without seal, 2 mounted locks



Basic element 1 (88.25 mm deep) with air vents

Model	Order no.	A	B	C	a1
BC 5000 L-1	79001900	175,7	146,7	88,25	127,1
BC 6000 L-1	79002000	226,5	146,7	88,25	177,9
BC 7000 L-1	79002100	323	146,7	88,25	274,4

Scope of delivery: Base element with air vents without seal, 2 mounted locks



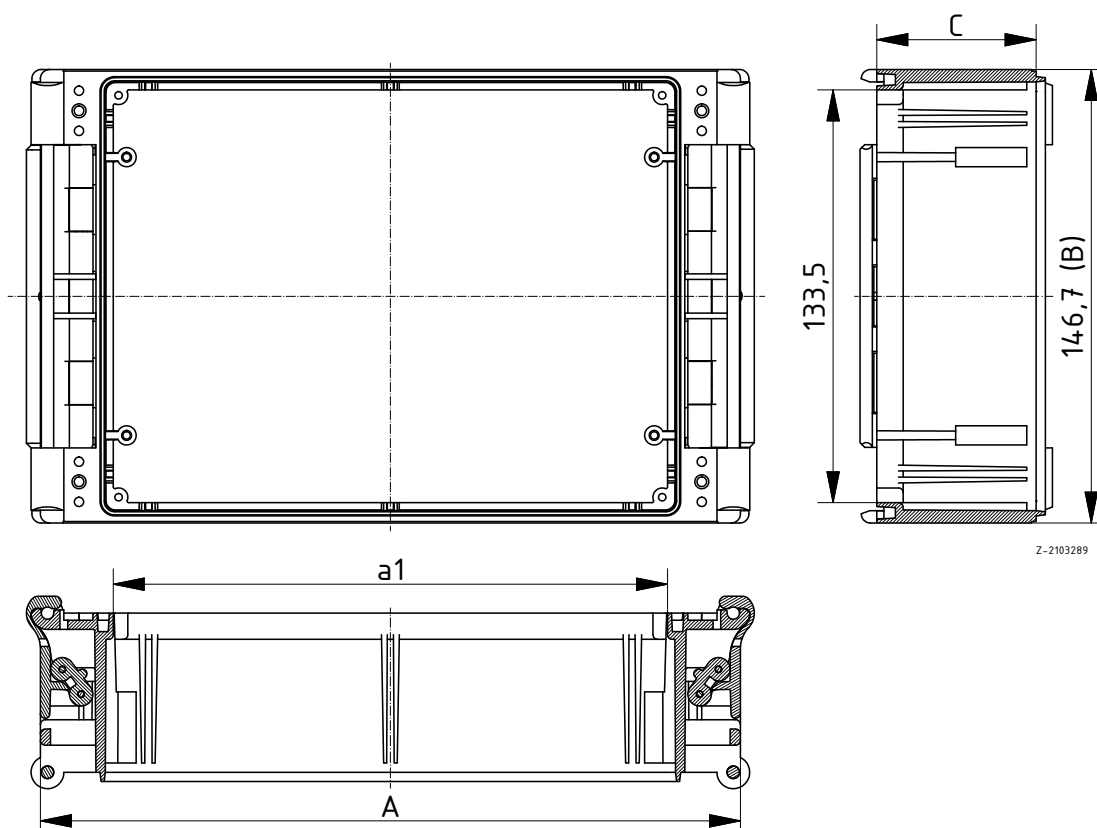
CombiCard 5000-7000 basic elements



Basic element 1.5 (139.76 mm deep) with air vents

Model	Order no.	A	B	C	a1
BC 5000 L-1,5	79002500	175,7	146,7	139,76	127,1
BC 6000 L-1,5	79002600	226,5	146,7	139,76	177,9
BC 7000 L-1,5	79002700	323	146,7	139,76	274,4

Scope of delivery: Base element with air vents without seal, 2 mounted locks



Z-2103289

CombiCard 5000-7000 basic elements

Basic element for control panel mounting

Model	Order no.	A	B	C	a1
BC 5000 NG	79001610	203,7	169,7	68,01	133,3
BC 6000 NG	79001710	254,5	169,7	68,01	184,1
BC 7000 NG	79001810	351	169,7	68,01	280,6

Scope of delivery: Base element with mounted assembly kit for control panel mounting

Note: When these base elements are used, front lids must be used on both sides to close the enclosure.
Tightening torque for the fixing elements = 80 Ncm

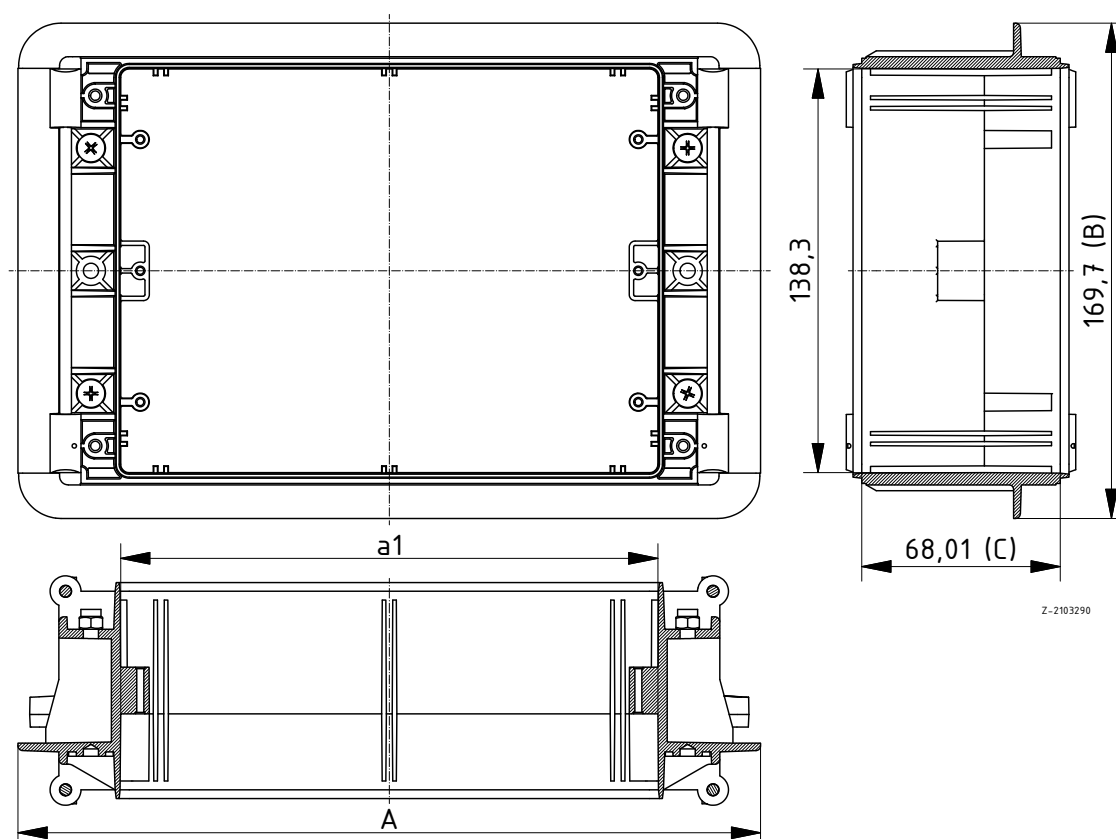


Basic element for control panel mounting, with air vents

Model	Order no.	A	B	C	a1
BC 5000 NG-L	79001910	203,7	169,7	68,01	133,3
BC 6000 NG-L	79002010	254,5	169,7	68,01	184,1
BC 7000 NG-L	79002110	351	169,7	68,01	280,6

Scope of delivery: Base element with mounted assembly kit for control panel mounting

Note: When these base elements are used, front lids must be used on both sides to close the enclosure.
Tightening torque for the fixing elements = 80 Ncm



CombiCard 5000-7000 rear lids

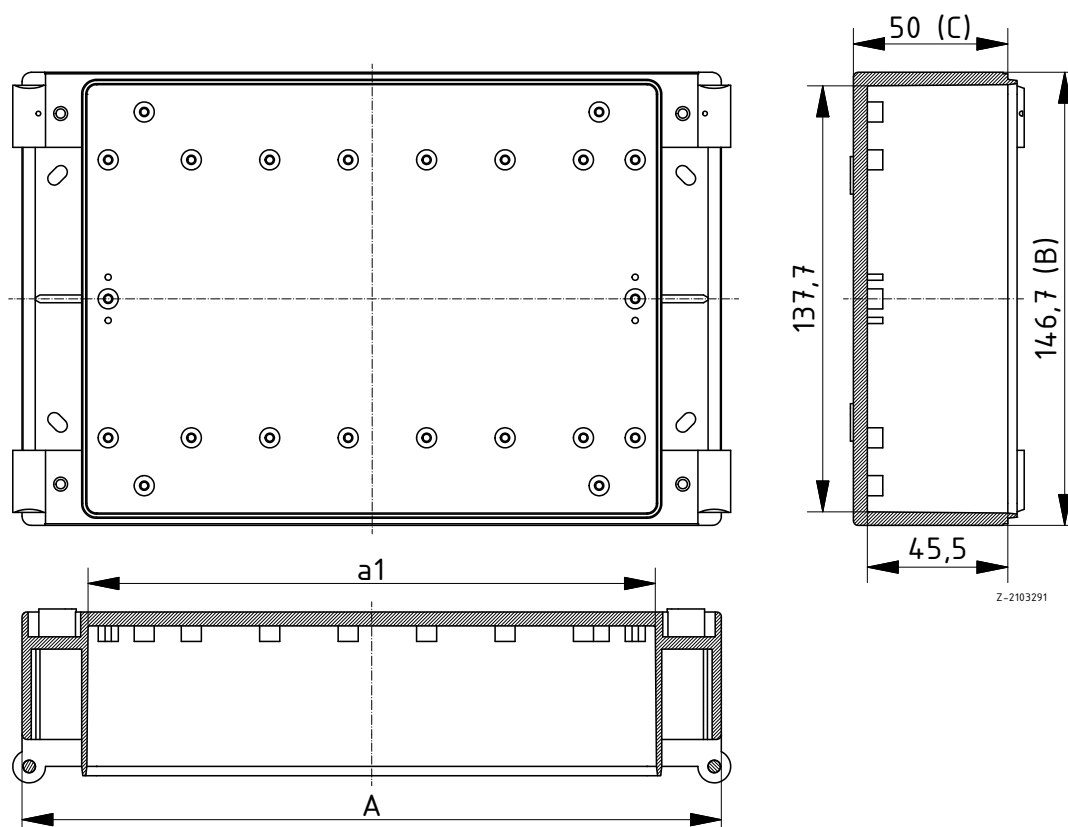


Rear lid

Model	Order no.	A	B	C	a1
RD 5000	79000100	175,7	146,7	50	132,7
RD 6000	79000200	226,5	146,7	50	183,5
RD 7000	79000300	323	146,7	50	280

Scope of delivery: Rear lid

Note: A fixing kit BS 5670 is also required for fitting front panels FP..000 I in the rear lid. This elevates the front panel in the rear lid.



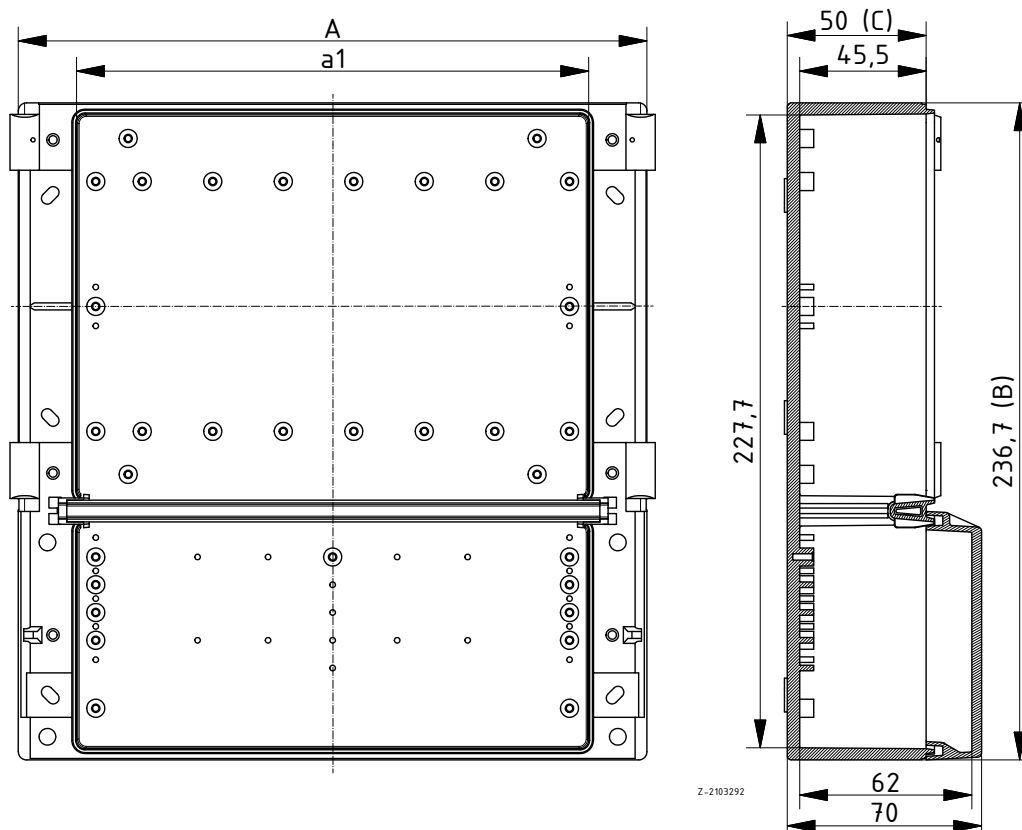
CombiCard 5000-7000 rear lids

Rear lid with terminal compartment

Model	Order no.	A	B	C	a1
RD 5000 K	79000400	175,7	236,7	50	132,7
RD 6000 K	79000500	226,5	236,7	50	183,5
RD 7000 K	79000600	323	236,7	50	280

Scope of delivery: Rear lid, terminal compartment bar, terminal compartment lid including seal and fixing screws

Note: A fixing kit BS 5670 is also required for fitting front panels FP..000 I in the rear lid. This elevates the front panel in the rear lid.



CombiCard 5000-7000 rear lids

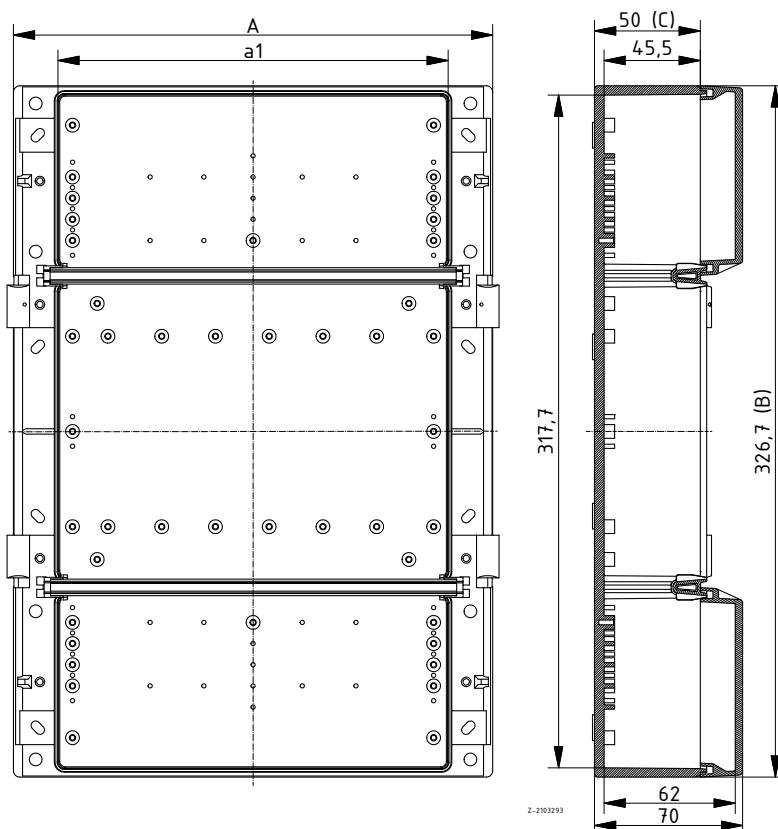


Rear lid with terminal compartment on both sides

Model	Order no.	A	B	C	a1
RD 5000 BK	79000700	175,7	326,7	50	132,7
RD 6000 BK	79000800	226,5	326,7	50	183,5
RD 7000 BK	79000900	323	326,7	50	280

Scope of delivery: Rear lid, 2 terminal compartment bars, 2 terminal compartment lids including seal and fixing screws

Note: A fixing kit BS 5670 is also required for fitting front panels FP..000 I in the rear lid. This elevates the front panel in the rear lid.



CombiCard 5000-7000 accessories

Wall brackets for rear lid

Model	Order no.	Note
WL 5670	79004600	For RD...
WL 5670 K	79004700	For RD... K
WL 5670 BK	79004800	For RD... BK

Scope of delivery: 2 wall brackets including fixing material for screwing the brackets to the rear lid



Internal front panels for basic elements and rear lid, natural-coloured anodised aluminium

Model	Order no.	Note
FP 5000 I	79004000	
FP 6000 I	79004100	
FP 7000 I	79004200	
BS 5670	79005500	Assembly kit for FP ... I in RD

Scope of delivery: 1 front panel

Note: For fixing screws for mounting on BC... , see General Accessories, order no. 59006217.



Front panels for FO front, natural-coloured anodised aluminium

Model	Order no.	
FP 5000 AI	79004300	
FP 6000 AI	79004400	
FP 7000 AI	79004500	

Scope of delivery: 1 front panel

Note: Fixing screws included in scope of delivery for the fronts.



Handle

Model	Order no.	
HS 5000	79605020	
HS 6000	79606020	
HS 7000	79607020	

Scope of delivery: 1 handle

Note: For fitting the handle, mechanical processing of the enclosure parts is required.



CombiCard 5000-7000 accessories



Lock bolt for basic elements for blocking locking function

Model	Order no.	Note
SR 5670 -0,5	79004900	For BC...(L)-0,5
SR 5670-1	79005010	For BC...(L)-1
SR 5670 -1,5	79005100	For BC...(L)-1,5

Scope of delivery: 2 pieces

Note: The lock bolts can be used to ensure that the hinged quick-release fasteners cannot be opened when the enclosure is closed. The lock bolt can only be moved and the fastener opened after the front-fitted enclosure system part has been opened. This protects a unit against unauthorized access, or restricts the hinged quick-release fastener to the hinge function.



Cover for hinged quick-release fastener

Model	Order no.	Note
VA 5670	79005300	For FD...(G)

Scope of delivery: 2 pieces

Note: For snapping onto the hinge side of the front lid FD... (G).



Hinged quick-release fastener for retrofitting of FO and FR fronts

Model	Order no.	Note
SV 5670	79005400	For FO/FR

Scope of delivery: 2 hinge parts, 1 catch, 1 blind plug



Cylinder catch for FD fronts

Model	Order no.
SHLO-302	21008310

Scope of delivery: 1 lock, 2 keys

CombiCard 5000-7000 accessories

Mounting panel for rear lid RD.. (K,BK) and basic elements, laminated paper

Model	Order no.	
M 5000	80050000	
M 6000	80060000	
M 7000	80070000	

Scope of delivery: 1 mounting panel

Note: For fixing screws (order no. 59006217), see General Accessories.



Mounting panel for rear lid with terminal compartment RD..K (BK), laminated paper

Model	Order no.	
M 5000 K	80050100	
M 6000 K	80060100	
M 7000 K	80070100	

Scope of delivery: 1 mounting panel

Note: For fixing screws (order no. 59006217), see General Accessories.



Mounting panel for rear lid with terminal compartment on both sides RD..BK, laminated paper

Model	Order no.	
M 5000 BK	80050200	
M 6000 BK	80060200	
M 7000 BK	80070200	

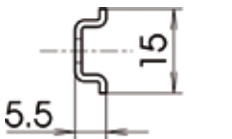
Scope of delivery: 1 mounting panel

Note: For fixing screws (order no. 59006217), see General Accessories.

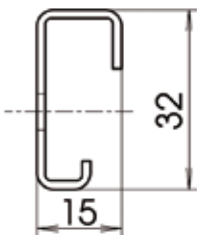




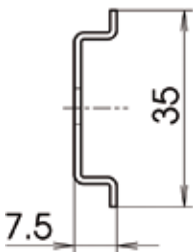
CombiCard 5000-7000 accessories



TS 15



TS 32



TS 35

DIN rails

Model	Order no.	C	Note
TS 155000.1	22151301	130	Top hat rail DIN EN 60715 TH 15 for CC 5000
TS 156000.1	22151801	180	Top hat rail DIN EN 60715 TH 15 for CC 6000
TS 157000.1	22152801	280	Top hat rail DIN EN 60715 TH 15 for CC 7000
TS 325000.1	22321301	130	Top hat rail DIN EN 60715 G 32 for CC 5000
TS 326000.1	22321801	180	Top hat rail DIN EN 60715 G 32 for CC 6000
TS 327000.1	22322801	280	Top hat rail DIN EN 60715 G 32 for CC 7000
TS 355000.1	22351301	130	Top hat rail DIN EN 60715 TH 35 for CC 5000
TS 356000.1	22351801	180	Top hat rail DIN EN 60715 TH 35 for CC 6000
TS 357000.1	22352801	280	Top hat rail DIN EN 60715 TH 35 for CC 7000

Scope of delivery: 1 DIN rail

Note: For fixing screws see General Accessories.

C = DIN rail length in mm.

Matching terminals and terminal mounting on request.

CombiCard 5000-7000

19" subracks acc. to DIN EN 60297-3-101

Subrack

Model	Order no.	Note
BGT 5000.PI	53215000	3 U, 20 HP
BGT 6000.PI	53216000	3 U, 30 HP
BGT 7000.PI	53217000	3 U, 49 HP

Scope of delivery: 1 subrack, mounting material

Note: For accessories, see Interzoll Modul / Interzoll accessories chapter.



Closed subrack with cover plates

Model	Order no.	Note
BGT 5000.PI-AD	53215100	3 U, 20 HP
BGT 6000.PI-AD	53216100	3 U, 30 HP
BGT 7000.PI-AD	53217100	3 U, 49 HP

Scope of delivery: 1 subrack, mounting material

Note: For accessories, see Interzoll Modul / Interzoll accessories chapter.





Alurail

Modular DIN rail enclosure – aluminium profile technology

- 2 basic sizes
- 7 standard lengths
- Special lengths on request
- Variable positioning of the modules
- Can be used as single-PCB enclosure
- Design-matching wall fitting
- Earthing set as accessory



Colour	Profile, natural-coloured anodised aluminium; profile caps light grey, similar to RAL 7035; special colours on request
Protection class	Depending on enclosure design, up to IP 40 / DIN EN 60529
Enclosure material	Extruded profiles: Al Mg Si 0.5, anodised; profile caps: polyamide 6.6 FR

All plastic parts are made of flame-resistant material (UL 94 V0).

By using the special snap-lock element, the basic profiles can easily be mounted on a DIN rail acc. to DIN EN 60715 TH 35. For wall mounting, use the wall fitting (available as an accessory).

All basic and module profiles have grooves at various heights to hold circuit boards or mounting panels. Basic profile ARP 105/31 is designed especially for use with Euro card format PCBs. Aluminium front panels are available as accessories. Special designs, e.g. using crystal-clear material, are available on request.

When used in combination with the basic profiles, the module profiles which can be fitted in different ways (grid 15 mm) allow individual enclosure configurations. On request we can supply special module bridges for non-continuous module profiles.



Alurail 75/31 enclosure profiles



Basic profiles, one-piece

Model	Order no.	A	B	C
ARP 75/31-52,5	87010525	25,5	75	42,5
ARP 75/31-70	87010700	25,5	75	60
ARP 75/31-105	87011050	25,5	75	95
ARP 75/31-140	87011400	25,5	75	130
ARP 75/31-175	87011750	25,5	75	165
ARP 75/31-210	87012100	25,5	75	200
ARP 75/31-245	87012450	25,5	75	235
ARP 75/31-1000	87010000	25,5	75	990

Scope of delivery: Enclosure profile

Note: C = profile length; special lengths on request.
Front panels and profile caps as accessories.

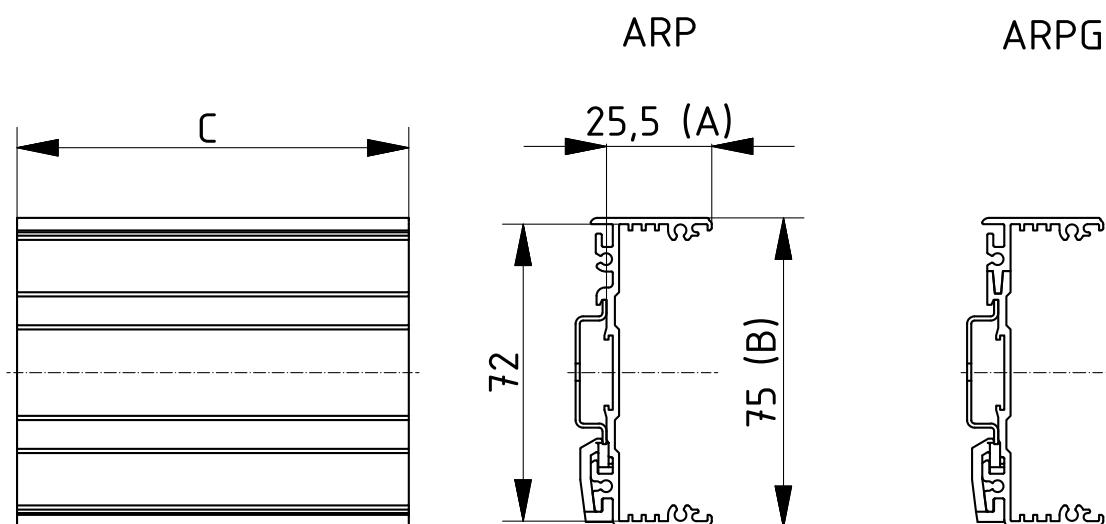


Basic profiles, divided

Model	Order no.	A	B	C
ARPG 75/31-52,5	87030525	25,5	75	42,5
ARPG 75/31-70	87030700	25,5	75	60
ARPG 75/31-105	87031050	25,5	75	95
ARPG 75/31-140	87031400	25,5	75	130
ARPG 75/31-175	87031750	25,5	75	165
ARPG 75/31-210	87032100	25,5	75	200
ARPG 75/31-245	87032450	25,5	75	235
ARPG 75/31-1000	87030000	25,5	75	990

Scope of delivery: Enclosure profile, 2 parts

Note: C = profile length; special lengths on request.
Front panels and profile caps as accessories.



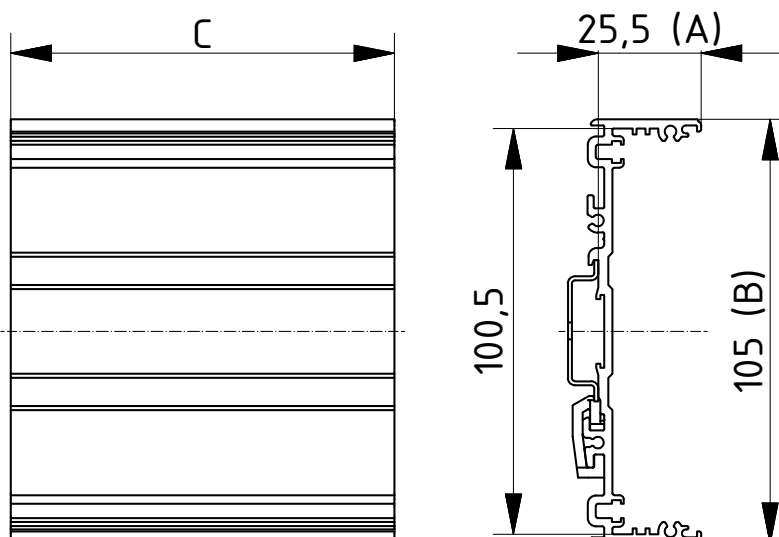
Alurail 105/31 enclosure profiles

Basic profiles, one-piece

Model	Order no.	A	B	C
ARP 105/31-52,5	87020525	25,5	105	42,5
ARP 105/31-70	87020700	25,5	105	60
ARP 105/31-105	87021050	25,5	105	95
ARP 105/31-140	87021400	25,5	105	130
ARP 105/31-175	87021750	25,5	105	165
ARP 105/31-210	87022100	25,5	105	200
ARP 105/31-245	87022450	25,5	105	235
ARP 105/31-1000	87020000	25,5	105	990

Scope of delivery: Enclosure profile

Note: C = profile length; special lengths on request.
Front panels and profile caps as accessories.



Z-2603259

Alurail module profiles

for mounting on the basic profiles

Module profile, one-piece



Model	Order no.	A	B	C
ARPM 45/27-35	87100350	28,1	45	25
ARPM 45/27-52,5	87100525	28,1	45	42,5
ARPM 45/27-70	87100700	28,1	45	60
ARPM 45/27-105	87101050	28,1	45	95
ARPM 45/27-140	87101400	28,1	45	130
ARPM 45/27-175	87101750	28,1	45	165
ARPM 45/27-210	87102100	28,1	45	200
ARPM 45/27-245	87102450	28,1	45	235
ARPM 45/27-1000	87100000	28,1	45	990

Scope of delivery: Module profile

Note: C = profile length; special lengths and module bridges for partial module mounting on request.
Module caps as accessories.

Module profile, divided



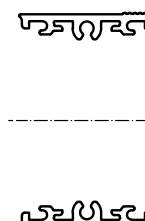
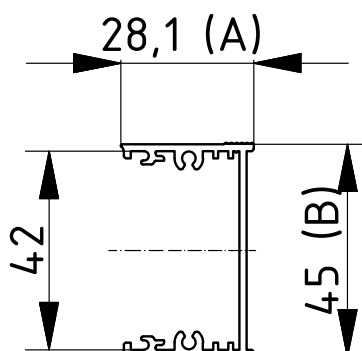
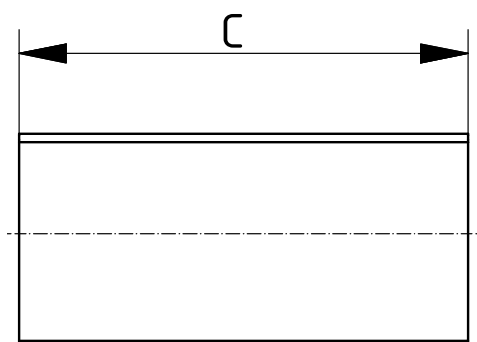
Model	Order no.	A	B	C
ARPMG 00/27-35	87120350	28,1	45	25
ARPMG 00/27-52,5	87120525	28,1	45	42,5
ARPMG 00/27-70	87120700	28,1	45	60
ARPMG 00/27-105	87121050	28,1	45	95
ARPMG 00/27-140	87121400	28,1	45	130
ARPMG 00/27-175	87121750	28,1	45	165
ARPMG 00/27-210	87122100	28,1	45	200
ARPMG 00/27-245	87122450	28,1	45	235
ARPMG 00/27-1000	87120000	28,1	45	990

Scope of delivery: Module profile, 2 parts

Note: C = profile length; special lengths and module bridges for partial module mounting on request.
Module caps and front panels as accessories.

ARPM

ARPMG



Alurail module profiles

for mounting on the basic profiles

Module profile, one-piece

Model	Order no.	A	B	C
ARPM 75/42-35	87110350	43,1	75	25
ARPM 75/42-52,5	87110525	43,1	75	42,5
ARPM 75/42-70	87110700	43,1	75	60
ARPM 75/42-105	87111050	43,1	75	95
ARPM 75/42-140	87111400	43,1	75	130
ARPM 75/42-175	87111750	43,1	75	165
ARPM 75/42-210	87112100	43,1	75	200
ARPM 75/42-245	87112450	43,1	75	235
ARPM 75/42-1000	87110000	43,1	75	990

Scope of delivery: Module profile

Note: C = profile length; special lengths and module bridges for partial module mounting on request.
Module caps and front panels as accessories.



Module profile, divided

Model	Order no.	A	B	C
ARPMG 00/42-35	87130350	43,1	75	25
ARPMG 00/42-52,5	87130525	43,1	75	42,5
ARPMG 00/42-70	87130700	43,1	75	60
ARPMG 00/42-105	87131050	43,1	75	95
ARPMG 00/42-140	87131400	43,1	75	130
ARPMG 00/42-175	87131750	43,1	75	165
ARPMG 00/42-210	87132100	43,1	75	200
ARPMG 00/42-245	87132450	43,1	75	235
ARPMG 00/42-1000	87130000	43,1	75	990

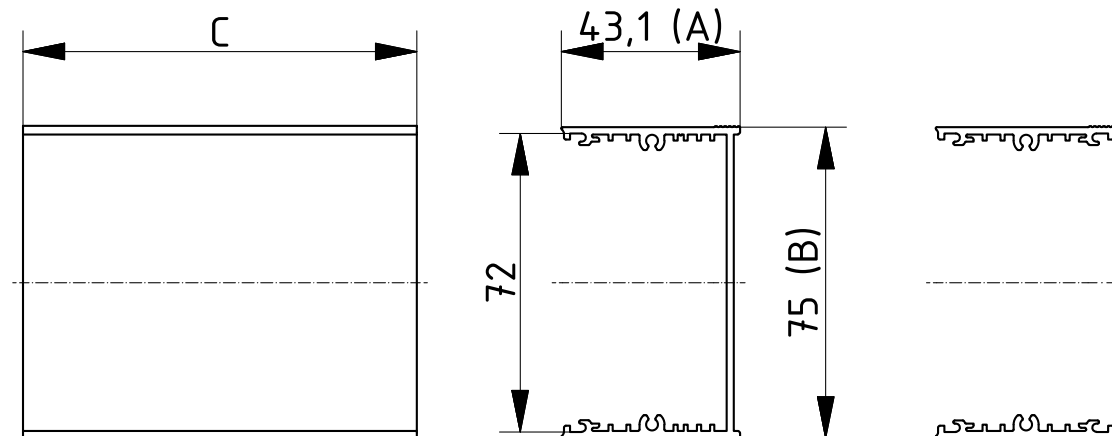
Scope of delivery: Module profile, 2 parts

Note: C = profile length; special lengths and module bridges for partial module mounting on request.
Module caps and front panels as accessories.



ARPM

ARPMG



Z-2603262

Alurail accessories



Basic profile caps with drill holes for fixing the module

Model	Order no.	Note
AR 75/31-KS 1	87301100	For ARP(G) 75
AR 105/31-KS 1	87301200	For ARP 105

Scope of delivery: 2 basic profile caps, 4 fixing screws, 1 snap-on element, 1 positioning screw for snap-on element

Note: Special colours on request.



Basic profile caps without drill holes

Model	Order no.	Note
AR 75/31-KS 2	87302100	For ARP(G) 75
AR 105/31-KS 2	87302200	For ARP 105

Scope of delivery: 2 basic profile caps, 4 fixing screws, 1 snap-on element, 1 positioning screw for snap-on element

Note: Special colours on request.



Side panels for basic profile, natural-coloured anodised aluminium

Model	Order no.	Note
AR 75-KS-AL	87304100	For ARP(G) 75/31-...
AR 75/45-KS-AL	87304200	For ARP(G) 75/31-... + ARPM(G) 45/27-...
AR 75/75-KS-AL	87304300	For ARP(G) 75/31-... + ARPM(G) 75/42-...
AR 105-KS-AL	87304110	For ARP 105/31-...
AR 105/45-KS-AL	87304210	For ARP 105/31-... + ARPM(G) 45/27-...
AR 105/75-KS-AL	87304310	For ARP 105/31-... + ARPM(G) 75/42-...

Scope of delivery: 2 side panels, 4 fixing screws, 1 snap-on element, 1 positioning screw for snap-on element

Note: Can be used as an alternative to the profile/module caps. This permits an especially narrow construction for the units. Special designs for off-centre arrangement of the module profiles on request.

Alurail accessories

Module profile caps

Model	Order no.	Note
ARM 45/27	87303100	For ARPM(G) 45
ARM 75/42	87303200	For ARPM(G) 75

Scope of delivery: 2 module profile caps, 4 fixing screws, 2 mounting screws

Note: Special colours on request.



Front panels for basic profiles, natural-coloured anodised aluminium

Model	Order no.	Note
AR 75-52,5 FP	87400525	For ARP(G) 75/31-52,5
AR 75-70 FP	87400700	For ARP(G) 75/31-70
AR 75-105 FP	87401050	For ARP(G) 75/31-105
AR 75-140 FP	87401400	For ARP(G) 75/31-140
AR 75-175 FP	87401750	For ARP(G) 75/31-175
AR 75-210 FP	87402100	For ARP(G) 75/31-210
AR 75-245 FP	87402450	For ARP(G) 75/31-245
AR 75-1000 FP	87400000	For ARP(G) 75/31-1000
AR 105-52,5 FP	87410525	For ARP(G) 105/31-52,5
AR 105-70 FP	87410700	For ARP(G) 105/31-70
AR 105-105 FP	87411050	For ARP(G) 105/31-105
AR 105-140 FP	87411400	For ARP(G) 105/31-140
AR 105-175 FP	87411750	For ARP(G) 105/31-175
AR 105-210 FP	87412100	For ARP(G) 105/31-210
AR 105-245 FP	87412450	For ARP(G) 105/31-245
AR 105-1000 FP	87410000	For ARP(G) 105/31-1000

Scope of delivery: 1 front panel



Alurail accessories



Front panels for module profiles, natural-coloured anodised aluminium

Model	Order no.	Note
ARM 45-35 FP	87420350	For ARPM(G) 45(00)/27-35
ARM 45-52,5 FP	87420525	For ARPM(G) 45(00)/27-52,5
ARM 45-70 FP	87420700	For ARPM(G) 45(00)/27-70
ARM 45-105 FP	87421050	For ARPM(G) 45(00)/27-105
ARM 45-140FP	87421400	For ARPM(G) 45(00)/27-140
ARM 45-175 FP	87421750	For ARPM(G) 45(00)/27-175
ARM 45-210 FP	87422100	For ARPM(G) 45(00)/27-210
ARM 45-245 FP	87422450	For ARPM(G) 45(00)/27-245
ARM 45-1000 FP	87420000	For ARPM(G) 45(00)/27-1000
ARM 75-35 FP	87430350	For ARPM(G) 75(00)/42-35
ARM 75-52,5 FP	87430525	For ARPM(G) 75(00)/42-52,5
ARM 75-70 FP	87430700	For ARPM(G) 75(00)/42-70
ARM 75-105 FP	87431050	For ARPM(G) 75(00)/42-105
ARM 75-140 FP	87431400	For ARPM(G) 75(00)/42-140
ARM 75-175 FP	87431750	For ARPM(G) 75(00)/42-175
ARM 75-210 FP	87432100	For ARPM(G) 75(00)/42-210
ARM 75-245 FP	87432450	For ARPM(G) 75(00)/42-245
ARM 75-1000 FP	87430000	For ARPM(G) 75(00)/42-1000

Scope of delivery: 1 front panel



Wall fitting for the basic profile

Model	Order no.	Note
AR 52,5 WB	87310525	For ARP...-52,5
AR 70 WB	87310700	For ARP...-70
AR 105 WB	87311050	For ARP...-105
AR 140 WB	87311400	For ARP...-140
AR 175 WB	87311750	For ARP...-175
AR 210 WB	87312100	For ARP...-210
AR 245 WB	87312450	For ARP...-245

Scope of delivery: 2 wall fixing elements, 1 DIN rail

Note: The DIN rail length is identical to that of the relevant basic profile length of ARP 75 / ARP 105.

Alurail accessories

Earthing set for basic profiles

Model	Order no.
AR-E	87309010

Scope of delivery: 5 earthing claws

Note: The earthing claw is pressed into the basic profile during assembly and breaks through the anodised layer, so ensuring proper contacting. The use of commercially available cable lugs for flat connectors acc. to DIN 46244-A6.3-0.8 permits earthing of the enclosure parts or the fitted components.



Snap-on element for basic profiles, suitable for DIN rails acc. to DIN EN 60715 TH 35

Model	Order no.
AR-R	87309020

Scope of delivery: 5 snap-on elements, 5 positioning screws

Note: Depending on the application, an additional snap-on element may be necessary with longer profiles to ensure optimal support on the DIN rail.





CombiNorm-Classic

This DIN rail offers maximum mounting space

- 5 sizes
- Matching connection terminals as accessories
- DIN rail holder, also for use as wall fitting
- Terminal approvals acc. to UL 1059, CSA 22.2 no. 158 and EN 60998
- Comprehensive range of accessories

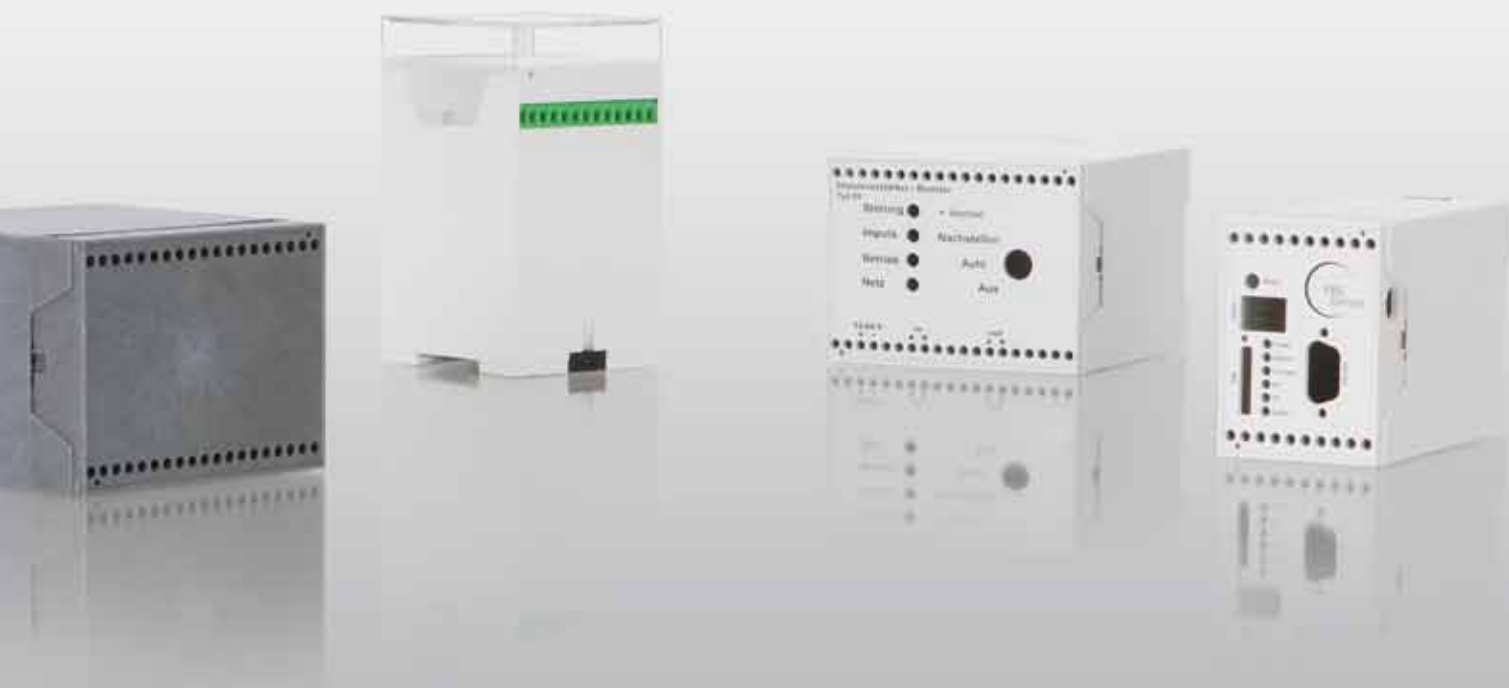


Colour	Light grey, similar to RAL 7035; special colours on request
Protection class	Up to IP 40/DIN EN 60529, terminals IP 20/DIN EN 60529
Enclosure material	ABS; UL 94 V0 material on request; for details see Technical Information

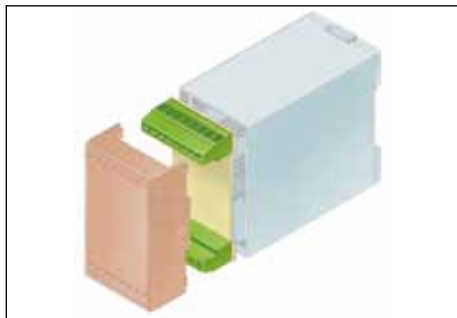
The enclosures can be latched onto the 35 mm rail in accordance with DIN EN 60715 TH 35. The hinged latching hoods CNH..N or CNH..H can be opened upwards or downwards or removed completely, as required. If necessary, they can also be sealed. When sealed, the hood also conceals the screws of the connection terminals (not STL 950/ V). The CNS types have a side-mounted flap for adjustment of devices during operation. To comply with CSA and other regulations, on request we can supply the enclosures in high-temperature and flame-resistant material (UL 94 V0). All the terminals listed below are UL (UL 1059), CUL (CSA 22.2 no.158), VDE (EN 60998) approved.

Model	Maximum insertion with terminals
CN(S) 22 AK	2 x 4-pole
CN(S) 45 AK	2 x 8-pole
CN(S) 55 AK	2 x 10-pole
CN(S) 70 AK	2 x 13-pole
CN(S) 100 AK	2 x 19-pole

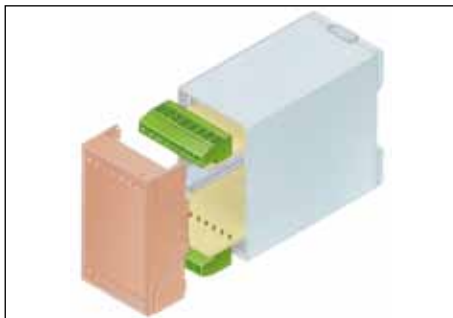
Any terminal positions which are not needed can be closed with blind plates CNB 100.



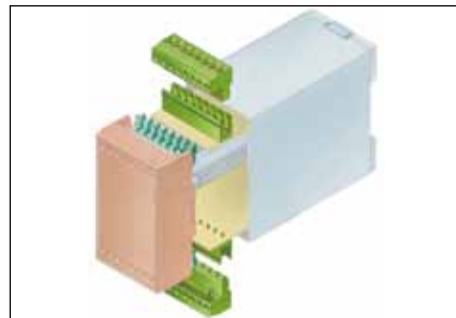
Terminal types



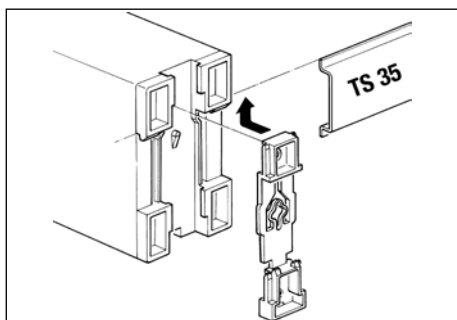
AK 700 V: This terminal is specially designed for a circuit board which is fitted to the base and parallel to the front lid. This makes it possible to fit front operating elements at the same time. IP 20 protection.



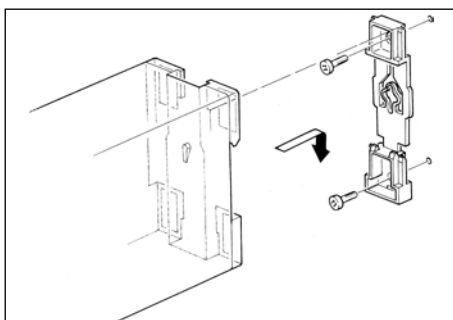
AK 700 H: This terminal is designed for use with vertically inserted circuit boards. It creates a 9 mm clearance to the outside, so circuit boards can be fitted with components on both sides.



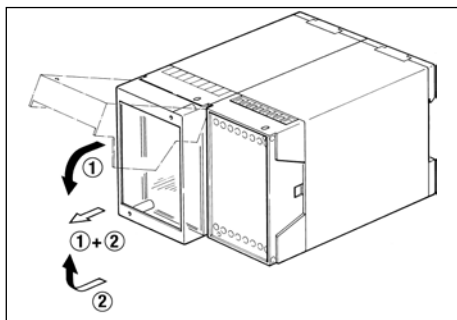
STL 950 / AK 950: This terminal consists of two parts. The STL 950 connector strip is soldered to the vertically-insertable circuit board. The AK 950 terminal slots into the connector strip, so faulty units can be replaced quickly. The STL adapter CNA 100 must be fitted to support the circuit board.



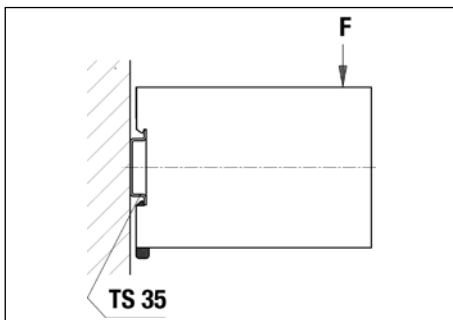
Fitting for rail fixing (factory-fitted)



Mounting for direct wall fitting



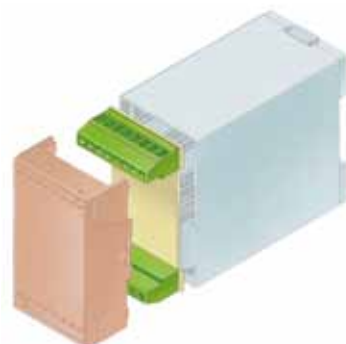
Hood activation



Load capacity, F = static load max. 40 N

CombiNorm-Classic

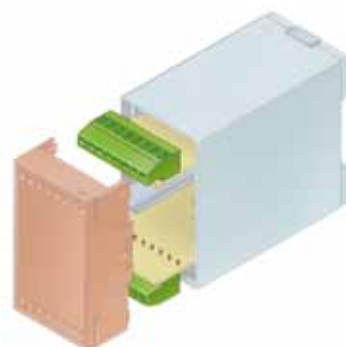
connection terminals



Connection terminals for circuit boards which are parallel to the front side

Model	Order no.	Colour	Note
AK 700/2V	66002000	Green	2-pole
AK 700/3V	66003000	Green	3-pole
AK 700/4V	66004000	Green	4-pole
AK 700/8V	66008000	Green	8-pole
AK 700/10V	66010000	Green	10-pole
AK 700/13V	66013000	Green	13-pole
AK 700/19V	66019000	Green	19-pole

Scope of delivery: 1 connection terminal



Connector strip for vertically-inserted circuit boards

Model	Order no.	Colour	Note
AK 700/2H	66004110	Green	2-pole
AK 700/3H	66003100	Green	3-pole
AK 700/4H	66004100	Green	4-pole
AK 700/8H	66008100	Green	8-pole
AK 700/10H	66010100	Green	10-pole
AK 700/13H	66013100	Green	13-pole
AK 700/19H	66019100	Green	19-pole

Scope of delivery: 1 connection terminal

Ratings acc. to EN 60998 for AK 700/..V and AK 700/..H

Rated voltage	250 V
Rated current	24 A (T60)
Conductor cross-section	2.5 mm ²
Test voltage	2.0 kV
Torque / screw size	0.5 Nm/M3

Maximum conductor cross-section

Single-wire (rigid)	4.0 mm ²
Fine-strand (flexible)	2.5 mm ²

Materials

Insulating material	PA
Inflammability class	UL 94 V0
Temperature range	-30°C / + 105°C
Terminal clamp	CuZn
Soldering tag	Cu

Dimensions

Grid	5.0 mm
Drill hole diameter	1.3 mm
Wire stripping length	8.0 mm

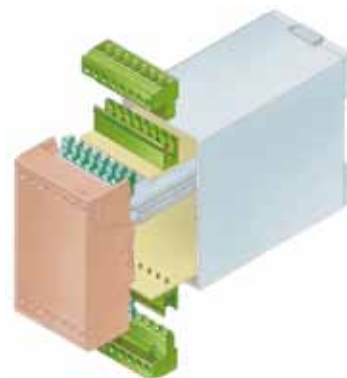
CombiNorm-Classic

connection terminals

Connection terminal for STL 950

Model	Order no.	Colour	Note
AK 950/4	66004600	Green	4-pole
AK 950/8	66008600	Green	8-pole
AK 950/10	66010600	Green	10-pole
AK 950/13	66013600	Green	13-pole
AK 950/19	66019600	Green	19-pole

Scope of delivery: 1 connection terminal



Connector strip for soldering onto vertically-inserted circuit boards

Model	Order no.	Note
STL 950/4V	66004500	4-pole
STL 950/8V	66008500	8-pole
STL 950/10V	66010500	10-pole
STL 950/13V	66013500	13-pole
STL 950/19V	66019500	19-pole

Scope of delivery: 1 connector strip

Ratings acc. to EN 60998

Rated voltage	250 V
Rated current	24 A (T60)
Conductor cross-section	2.5 mm ²
Test voltage	2.0 kV
Torque / screw size	0.5 Nm/M3

Maximum conductor cross-section

Single-wire (rigid)	4.0 mm ²
Fine-strand (flexible)	2.5 mm ²

Materials

Insulating material	PA
Inflammability class	UL 94 V0
Temperature range	-30°C / + 105°C
Terminal clamp	CuZn
Soldering tag	Cu

Dimensions

Grid	5.0 mm
Drill hole diameter	1.3 mm
Wire stripping length	8.0 mm

Note: For STL 950 insertion, STL adapter CNA 100 must be mounted to support the PCB.
Connector strip STL 950 and connection terminal AK 950 can only be used together.



CombiNorm-Classic accessories



Hinged hood, crystal-clear, 9 mm high

Model	Order no.	Note
CNH 22 N	65002260	For CN(S) 22 AK
CNH 45 N	65004560	For CN(S) 45 AK
CNH 55 N	65005560	For CN(S) 55 AK
CNH 70 N	65007060	For CN(S) 70 AK
CNH 100 N	65010060	For CN(S) 100 AK

Scope of delivery: 1 hood



Hinged hood, crystal-clear, 15 mm high

Model	Order no.	Note
CNH 22 H	65002250	For CN(S) 22 AK
CNH 45 H	65004550	For CN(S) 45 AK
CNH 55 H	65005550	For CN(S) 55 AK
CNH 70 H	65007050	For CN(S) 70 AK
CNH 100 H	65010050	For CN(S) 100 AK

Scope of delivery: 1 hood

CombiNorm-Classic accessories

Blind plate for covering unused terminal locations, 19 parts, can be broken off

Model	Order no.
CNB 100	65010070

Scope of delivery: 2 pieces



Adapter plate for fitting circuit boards and closing the screw openings with the use of STL 950, 20 parts, can be broken off

Model	Order no.
CNA 100	65010100

Scope of delivery: 2 pieces



Terminal identification strip, self-adhesive

Model	Order no.
AK-BS	66000100

Scope of delivery: Terminal identification strip AK-BS





CombiNorm-Compact

The design of this DIN rail enclosure considerably reduces mounting work and time.

- 3 sizes
- 2 lid types
- Patented pre-mounted rail snap foot
- Matching connection terminals as accessories
- Comprehensive range of accessories



Colour	Light grey, similar to RAL 7035; special colours on request
Protection class	IP 40/DIN EN 60529; with air vents IP 30/DIN EN 60529; clamps IP 20/DIN EN 60529
Enclosure material	PA 6.6-FR (UL 94 V0); for details see Technical Information

Possible terminal insertion for the enclosures:

Model	Maximum insertion with terminals
CN 19	4 x 2-pole
CN 22	4 x 3-pole
CN 26	4 x 3-pole

Matching terminals in accessories.





The different enclosure combinations using shells and lids offer a range of advantages:



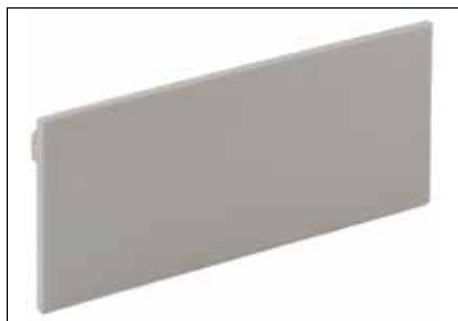
CN..GK with CN-DK: This combination requires the PCB to have a stepped profile. There is optimal access to the terminals of enclosures which are connected to each other.



CN..GK with CN-DU: This combination permits the use of a rectangular (grooved) PCB, which minimises the production costs.



CN..GU with CN-DU: Universal enclosure without pre-set terminal positions, permitting the use of larger bus wire connectors parallel to the PCB (up or down).



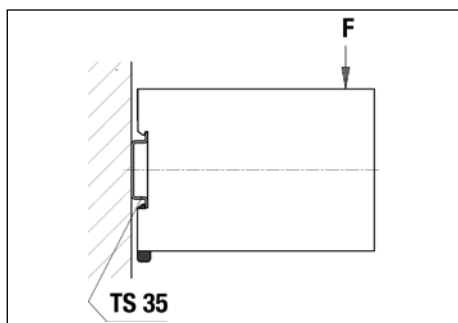
The **CN..FP** front panels are coded in their direction of insertion. Customer-specific front panels, e.g. made of aluminium, are also available as alternatives. A PCB plug-in slot for the fitting of – for example – front operating elements is provided parallel to the front panel.



Instead of a front panel, a **CN..FK** front flap (light grey) can be snapped in. It can be removed for operation of the rear components.



The use of the crystal-clear front flap **CN...FKG** makes LEDs visible without additional processing.



Load capacity:
max. 40 N (static load)

Contoured CombiNorm-Compact for DIN rail acc. to DIN EN 60715 TH 35

Enclosure shells

Model	Order no.	A	B	C	a1	a2
CN 19 GK	65019100	19	75	110,8	13	15
CN 22 GK	65022100	22,5	75	110,8	16,5	18,5
CN 26 GK	65026100	26	75	110,8	20	22

Scope of delivery: PU = 5 pieces

Note: See following pages for accessories.



Enclosure shells with air vents

Model	Order no.	A	B	C	a1	a2
CN 19 GK-L	65019110	19	75	110,8	13	15
CN 22 GK-L	65022110	22,5	75	110,8	16,5	18,5
CN 26 GK-L	65026110	26	75	110,8	20	22

Scope of delivery: PU = 5 pieces

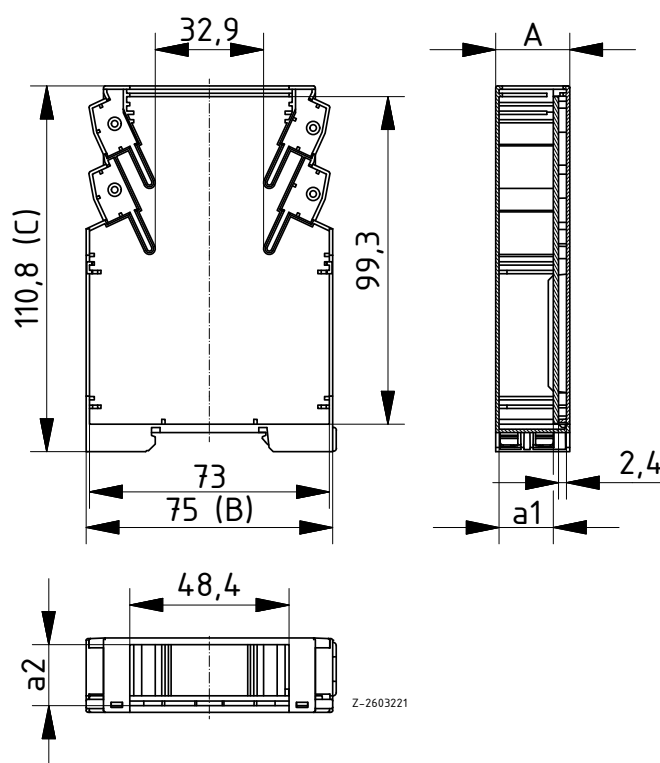
Note: See following pages for accessories.



Contoured enclosure lid for CN..GK

Model	Order no.
CN-DK	65000200

Scope of delivery: PU = 5 pieces



CombiNorm-Compact universal for DIN rail acc. to DIN EN 60715 TH 35



Enclosure shells

Model	Order no.	A	B	C	a1	a2
CN 19 GU	65019000	19	75	110,8	13	15
CN 22 GU	65022000	22,5	75	110,8	16,5	18,5
CN 26 GU	65026000	26	75	110,8	20	22

Scope of delivery: PU = 5 pieces

Note: See following pages for accessories.



Enclosure shells with air vents

Model	Order no.	A	B	C	a1	a2
CN 19 GU-L	65019010	19	75	110,8	13	15
CN 22 GU-L	65022010	22,5	75	110,8	16,5	18,5
CN 26 GU-L	65026010	26	75	110,8	20	22

Scope of delivery: PU = 5 pieces

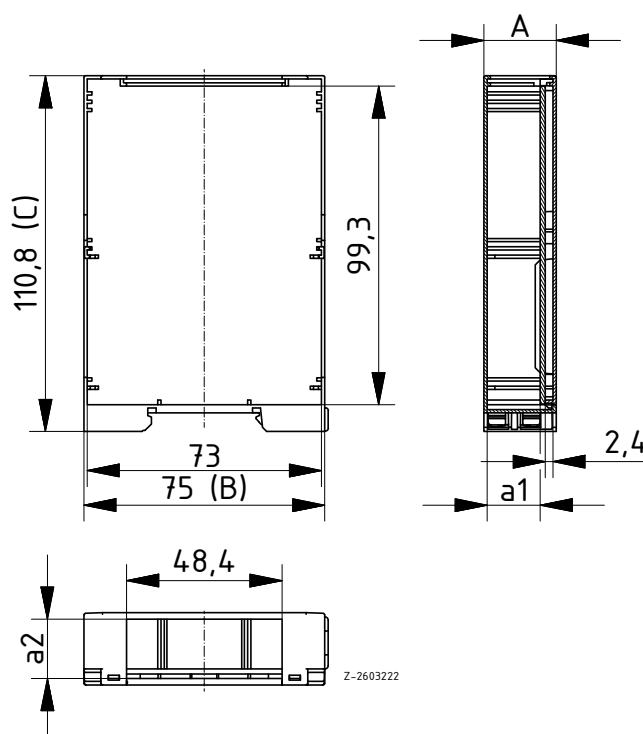
Note: See following pages for accessories.



Universal enclosure lid for CN..GU and CN ..GK

Model	Order no.
CN-DU	65000100

Scope of delivery: PU = 5 pieces



CombiNorm-Compact

connection terminals

Connection terminals, 2 and 3 poles, IP 20

Model	Order no.	Note
AK 8191/2DL	66000052	2-pole, on left of component side (seen from front), PCB vertical
AK 8191/2DR	66000062	2-pole, on right of component side (seen from front), PCB vertical
AK 8191/3DL	66000072	3-pole, on left of component side (seen from front), PCB vertical
AK 8191/3DR	66000082	3-pole, on right of component side (seen from front), PCB vertical

Scope of delivery: 1 connection terminal



Note:

Rated cross-section:	2.5 mm ²
Max. conductor cross-section:	single-wire (rigid) 0.14 – 4 mm ² , fine-strand (flexible) 0.14 – 2.5 mm ²
Rated current:	16 A
Rated voltage acc. to VDE 110/01.89:	250V/4KV/3 overvoltage category III 690V/4KV/2 overvoltage category II (max. 600 V for earthed equipment or expected overvoltage) 1000V/4KV/1 overvoltage category I
Dimensions:	Grid 5.0 mm Drill hole Ø 1.3 mm Wire stripping length 6.5 mm
Colour:	green, similar to RAL 6017
Materials:	Insulating material: PA, inflammability class UL 94 V0 Contact bow: tinned ETP copper Soldering pin: tinned ETP copper

CombiNorm-Compact accessories



Plug-in front panels, direction of insertion coded

Model	Order no.	Note
CN 19 FP	65019500	For CN 19
CN 22 FP	65022500	For CN 22
CN 26 FP	65026500	For CN 26

Scope of delivery: 1 front panel



Front flaps, snap-on

Model	Order no.	Note
CN 19 FK	65019600	For CN 19
CN 22 FK	65022600	For CN 22
CN 26 FK	65026600	For CN 26

Scope of delivery: 1 front flap



Front flaps, snap-on, crystal-clear

Model	Order no.	Note
CN 19 FKG	65019700	For CN 19
CN 22 FKG	65022700	For CN 22
CN 26 FKG	65026700	For CN 26

Scope of delivery: 1 front flap



Marking plate for clipping onto upper and lower section of enclosure front

Model	Order no.
CN-BZ	66000022

Scope of delivery: 1 marking plate

CombiNorm-Compact accessories

Covers for unused terminal locations for CN..GK (L)

Model	Order no.	Note
CN-BL 1	66000032	1-pole
CN-BL 2	66000042	2-pole

Scope of delivery: 1 cover



Terminal identification strip, self-adhesive

Model	Order no.	Note
AK-BS	66000100	

Scope of delivery: Terminal identification strip AK-BS



Wall adapter for all CombiNorm-Compact enclosures

Model	Order no.	Note
CN-WA	66000012	DIN rail TH 35

Scope of delivery: 1 adapter

Note: For individual mounting on wall surfaces. Matches all types.





Bocard

Modular enclosure system which adapts perfectly to almost every requirement

- 8 sizes
- UL 94 V0 types on request
- 6 different fronts
- Optional terminal compartment, flexible positioning, separable
- Comprehensive range of accessories allows versatile applications



Colour	Graphite grey, similar to RAL 7024; light grey, similar to RAL 7035; special colours on request
Protection class	Up to IP 65/DIN EN 60529, depending on the model
Enclosure material	ABS, PC; seal: CR; UL 94 V0 types on request; for details see Technical Information.

Depending on the model, the enclosures are available in RAL 7035, RAL 7024, or two colours can be combined.

To simplify choice, there is a selection of possible enclosure configurations in the following Bocard enclosure variants chapter. The variants are listed in two colour combinations: lid and base in light grey, and light grey base with a graphite grey lid. Of course, we can also supply these combinations completely in graphite grey.

If these complete sets are ordered, delivery is in the form of individual components. We also offer complete assembly on request. The separate enclosure components are listed after the configurations in order to combine individual variants. Detailed information on the individual enclosure components can be found on the following pages.

The range of accessories allows the enclosures to be used as wall-mounted, desktop, console, DIN rail or mobile enclosures.

Wall-mounting is by means of the integrated 4-point wall fitting or with WL wall brackets (accessories).

Fitting onto a top hat rail DIN EN 60715 TH is possible by means of the DIN rail holder up to size BCD 250 (accessories).

In combination with the WB wall-mounting fastening bracket (accessories), the enclosure can be used as an angled wall-mounted or console unit. The snap-on, swivelling handle can also be used for console applications.

Adaptable handle elements for use as a mobile enclosure are available for sizes BCD 160 – 250.





UT-0.5: The flat bases in combination with the membrane lid are ideal for use as mobile operating devices. For ergonomic handling, additional handle elements can be fitted on the rear and also cover the existing mounting openings. The fixing contours for the hinged lid which are moulded onto the base are also concealed by the cover (enclosed).



UT: All bases have plug-in slots and fixing domes for circuit boards, mounting panels or DIN rails. As an option, a variable terminal compartment can be integrated and isolated from the electronics compartment. The external surfaces have no pre-punchings, so individual arrangement of cable entries or connections is possible. Depending on the installation side which is used, fitted cable glands are partially concealed.



OT-G: This lid consists of a crystal-clear lid with a frame in light grey or graphite grey which contains the hinge and the snap-lock mechanism.

The OT-FSC lid consists of a membrane lid in light grey or graphite grey and has a recessed area for the fitting of membrane keypads. Both types can be opened to more than 180°, with an intermediate detent position of more than 90°. This prevents the open lid from closing in an uncontrolled manner. The catch is not necessary for manual opening. Alternatively, the blind plug can be inserted to improve the appearance (catch and blind plug are included in the scope of delivery). If the catch is used, the enclosure can only be opened with a tool (slotted-head screwdriver). A cylinder lock (accessories) can also be fitted as an option.

Protection class: IP 65.



UT-F: This plain membrane lid has a recessed area for mounting membrane keypads. Use screws to fit the base. Mounting bosses underneath allow the mounting of circuit boards or mounting panels. A separate terminal compartment can be created using partitions. Ingress protection: IP 65.



FO-K: The FO-K frame is used for edge covering of a front panel (FP...K) and a terminal compartment. The integrated terminal compartment lid has a 1.5 mm recessed area for the fitting of membrane keypads. The frame is pushed onto the base, pressed tight in 2 places, and screwed to the terminal compartment. In connection with base and front panel: protection class IP 40.



FO: The FO frame is used for edge covering of a continuous front panel (FP). Mounting on the base is by clipping-on and pressing tight. In connection with base and front panel: protection class IP 40.



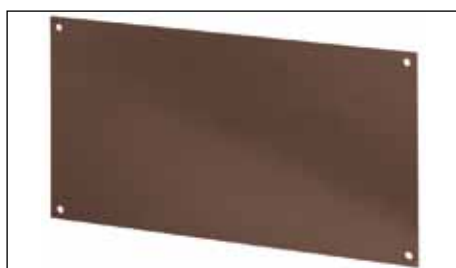
FP: Front panel, aluminium or plastic. The FP...K version must be used for enclosures with a terminal compartment, and the FP...BK version for enclosures with two terminal compartments.



KRD: By using partitions and front panels, a terminal compartment can be created and closed on the front with the KRD. The terminal compartment can be positioned as required on the locking or hinged side or on both sides at the same time. Mounting of the KRD is by hooking in and screwing. The terminal compartment lid is available in light or graphite grey. The KRD is mounted inside the sealed area, so the protection class is retained. The terminal compartment lid has a recessed area for the mounting of membrane keypads.



TP-F: Laminated paper partition for sealing off the electronics compartment if a membrane lid is required in connection with a terminal compartment.



Laminated paper panel for dividing a terminal compartment. The partition is inserted and fixed using TP-F or front panel.



The wall-mounting fastening bracket (WB) is made of powder-coated sheet steel. It is screwed on the rear to the base. Easy wall fitting is guaranteed. As an alternative, with the help of this bracket the Bocard can also be used as a console enclosure.



The swivelling handle (fixed lock-in position every 15°) permits use as both a carrying and set-up bow for desktop application. Anti-slip elements are fitted to the side sections of the handle, ensuring non-slip properties and stability.



With the swivelling BCD...UWB wall fitting, an enclosure with a flat base can be mounted on a wall in its optimal position.

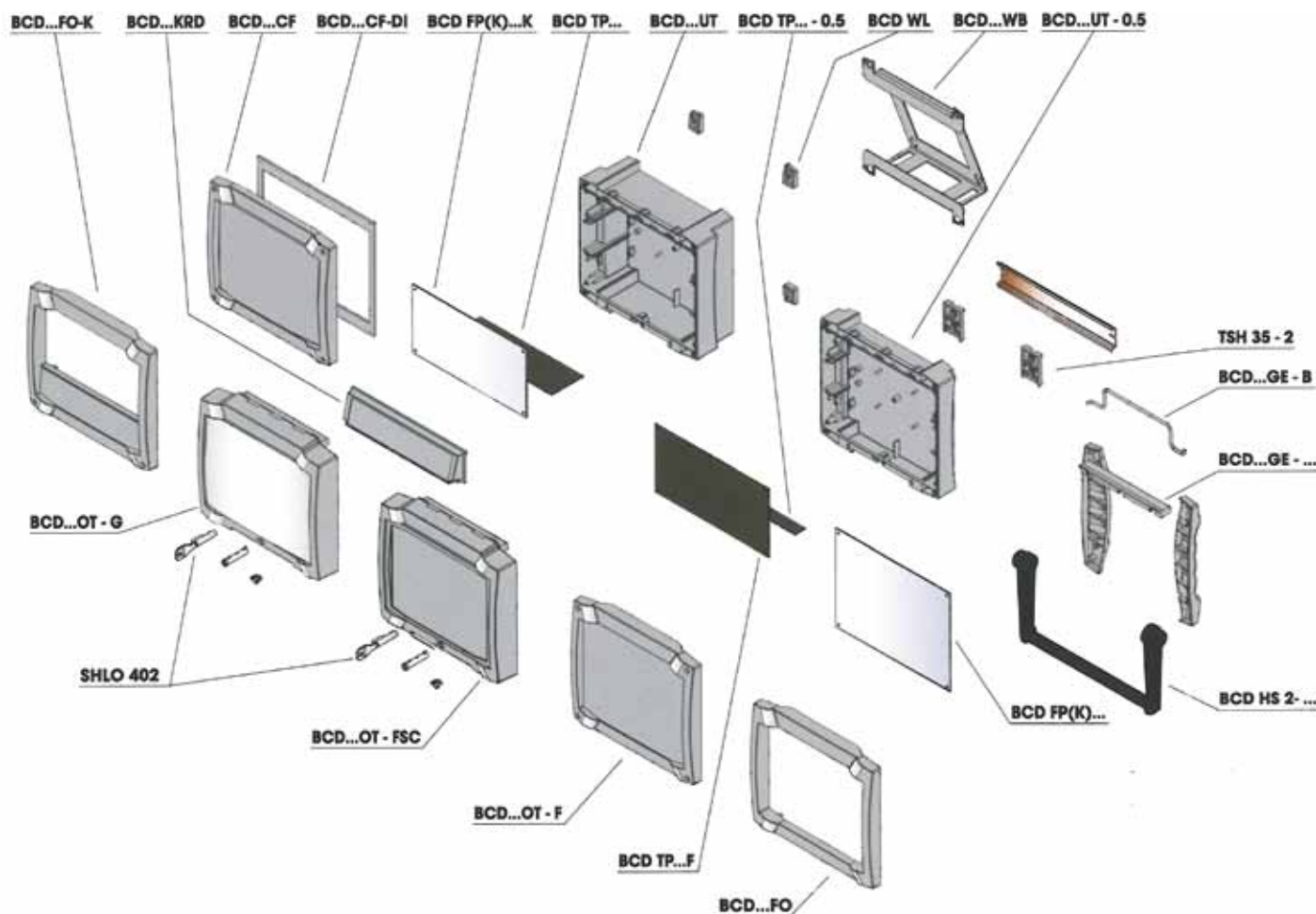


CF: The installation area has a recessed section for mounting membrane keypads. It can be screwed to a rear panel with four screws. Ingress protection IP 65 to the installation front can be achieved with the optional seal. Cannot be combined with Bocard bases.



Size information for the complete sets.

Bocard overview:



Bocard enclosure variants

High enclosure, with crystal-clear hinged lid, without terminal compartment, IP 65

Model	Order no.	A	B	C
BCD 160 Set 01-7035	20163501	179	199	106,5
BCD 200 Set 01-7035	20203501	204	229	116
BCD 250 Set 01-7035	20253501	234	264	141
BCD 310 Set 01-7035	20313501	289	324	145,2
BCD 400 Set 01-7035	20403501	344	404	160,5

Scope of delivery: 1 x BCD... UT-7035, 1 x BCD... OT-G-7035

Colour combination: Base light grey, lid frame light grey

Note: See following pages for accessories.



High enclosure, with crystal-clear hinged lid, without terminal compartment, IP 65

Model	Order no.	A	B	C
BCD 160 Set 01-7024	20162401	179	199	106,5
BCD 200 Set 01-7024	20202401	204	229	116
BCD 250 Set 01-7024	20252401	234	264	141
BCD 310 Set 01-7024	20312401	289	324	145,2
BCD 400 Set 01-7024	20402401	344	404	160,5

Scope of delivery: 1 x BCD... UT-7035, 1 x BCD... OT-G-7024

Colour combination: Base light grey, lid frame graphite grey

Note: See following pages for accessories.

Flat enclosure, with crystal-clear hinged lid, without terminal compartment, IP 65

Model	Order no.	A	B	C
BCD 160 Set 02-7035	20163502	179	199	71,5
BCD 200 Set 02-7035	20203502	204	229	76
BCD 250 Set 02-7035	20253502	234	264	86
BCD 310 Set 02-7035	20313502	289	324	111,2
BCD 400 Set 02-7035	20403502	344	404	112

Scope of delivery: 1 x BCD... UT-0,5-7035, 1 x BCD... OT-G-7035

Colour combination: Base light grey, lid frame light grey

Note: See following pages for accessories.



Flat enclosure, with crystal-clear hinged lid, without terminal compartment, IP 65

Model	Order no.	A	B	C
BCD 160 Set 02-7024	20162402	179	199	71,5
BCD 200 Set 02-7024	20202402	204	229	76
BCD 250 Set 02-7024	20252402	234	264	86
BCD 310 Set 02-7024	20312402	289	324	111,2
BCD 400 Set 02-7024	20402402	344	404	112

Scope of delivery: 1 x BCD... UT-0,5-7035, 1 x BCD... OT-G-7024

Colour combination: Base light grey, lid frame graphite grey

Note: See following pages for accessories.

Bocard enclosure variants



High enclosure, with crystal-clear hinged lid, for 1 terminal compartment, IP 65

Model	Order no.	A	B	C
BCD 160 Set 03-7035	20163503	179	199	106,5
BCD 200 Set 03-7035	20203503	204	229	116
BCD 250 Set 03-7035	20253503	234	264	141
BCD 310 Set 03-7035	20313503	289	324	145,2
BCD 400 Set 03-7035	20403503	344	404	160,5

Scope of delivery: 1 x BCD... UT-7035, 1 x BCD... OT-G-7035, 1 x BCD... KRD-7035

Colour combination: Base light grey, lid frame light grey

Note: See following pages for accessories.

High enclosure, with crystal-clear hinged lid, for 1 terminal compartment, IP 65

Model	Order no.	A	B	C
BCD 160 Set 03-7024	20162403	179	199	106,5
BCD 200 Set 03-7024	20202403	204	229	116
BCD 250 Set 03-7024	20252403	234	264	141
BCD 310 Set 03-7024	20312403	289	324	145,2
BCD 400 Set 03-7024	20402403	344	404	160,5

Scope of delivery: 1 x BCD... UT-7035, 1 x BCD... OT-G-7024, 1 x BCD... KRD-7024

Colour combination: Base light grey, lid frame graphite grey

Note: See following pages for accessories.



Flat enclosure, with crystal-clear hinged lid, for 1 terminal compartment, IP 65

Model	Order no.	A	B	C
BCD 160 Set 04-7035	20163504	179	199	71,5
BCD 200 Set 04-7035	20203504	204	229	76
BCD 250 Set 04-7035	20253504	234	264	86
BCD 310 Set 04-7035	20313504	289	324	111,2
BCD 400 Set 04-7035	20403504	344	404	112

Scope of delivery: 1 x BCD... UT-0,5-7035, 1 x BCD... OT-G-7035, 1 x BCD... KRD-7035

Colour combination: Base light grey, lid frame light grey

Note: See following pages for accessories.

Flat enclosure, with crystal-clear hinged lid, for 1 terminal compartment, IP 65

Model	Order no.	A	B	C
BCD 160 Set 04-7024	20162404	179	199	71,5
BCD 200 Set 04-7024	20202404	204	229	76
BCD 250 Set 04-7024	20252404	234	264	86
BCD 310 Set 04-7024	20312404	289	324	111,2
BCD 400 Set 04-7024	20402404	344	404	112

Scope of delivery: 1 x BCD... UT-0,5-7035, 1 x BCD... OT-G-7024, 1 x BCD... KRD-7024

Colour combination: Base light grey, lid frame graphite grey

Note: See following pages for accessories.

Bocard enclosure variants

High enclosure, with crystal-clear hinged lid, for 2 terminal compartments, IP 65

Model	Order no.	A	B	C
BCD 160 Set 05-7035	20163505	179	199	106,5
BCD 200 Set 05-7035	20203505	204	229	116
BCD 250 Set 05-7035	20253505	234	264	141
BCD 310 Set 05-7035	20313505	289	324	145,2
BCD 400 Set 05-7035	20403505	344	404	160,5

Scope of delivery: 1 x BCD... UT-7035, 1 x BCD... OT-G-7035, 2 x BCD... KRD-7035

Colour combination: Base light grey, lid frame light grey

Note: See following pages for accessories.



High enclosure, with crystal-clear hinged lid, for 2 terminal compartments, IP 65

Model	Order no.	A	B	C
BCD 160 Set 05-7024	20162405	179	199	106,5
BCD 200 Set 05-7024	20202405	204	229	116
BCD 250 Set 05-7024	20252405	234	264	141
BCD 310 Set 05-7024	20312405	289	324	145,2
BCD 400 Set 05-7024	20402405	344	404	160,5

Scope of delivery: 1 x BCD... UT-7035, 1 x BCD... OT-G-7024, 2 x BCD... KRD-7024

Colour combination: Base light grey, lid frame graphite grey

Note: See following pages for accessories.

Flat enclosure, with crystal-clear hinged lid, for 2 terminal compartments, IP 65

Model	Order no.	A	B	C
BCD 160 Set 06-7035	20163506	179	199	71,5
BCD 200 Set 06-7035	20203506	204	229	76
BCD 250 Set 06-7035	20253506	234	264	86
BCD 310 Set 06-7035	20313506	289	324	111,2
BCD 400 Set 06-7035	20403506	344	404	112

Scope of delivery: 1 x BCD... UT-0,5-7035, 1 x BCD... OT-G-7035, 2 x BCD... KRD-7035

Colour combination: Base light grey, lid frame light grey

Note: See following pages for accessories.



Flat enclosure, with crystal-clear hinged lid, for 2 terminal compartments, IP 65

Model	Order no.	A	B	C
BCD 160 Set 06-7024	20162406	179	199	71,5
BCD 200 Set 06-7024	20202406	204	229	76
BCD 250 Set 06-7024	20252406	234	264	86
BCD 310 Set 06-7024	20312406	289	324	111,2
BCD 400 Set 06-7024	20402406	344	404	112

Scope of delivery: 1 x BCD... UT-0,5-7035, 1 x BCD... OT-G-7024, 2 x BCD... KRD-7024

Colour combination: Base light grey, lid frame graphite grey

Note: See following pages for accessories.

Bocard enclosure variants



High enclosure, with open front frame without terminal compartment

Model	Order no.	A	B	C
BCD 160 Set 07-7035	20163507	178	199	89
BCD 200 Set 07-7035	20203507	203	229	99
BCD 250 Set 07-7035	20253507	233	264	124

Scope of delivery: 1 x BCD... UT-7035, 1 x BCD... FO-7035

Colour combination: Base light grey, front frame light grey

Note: See following pages for accessories.

High enclosure, with open front frame without terminal compartment

Model	Order no.	A	B	C
BCD 160 Set 07-7024	20162407	178	199	89
BCD 200 Set 07-7024	20202407	203	229	99
BCD 250 Set 07-7024	20252407	233	264	124

Scope of delivery: 1 x BCD... UT-7035, 1 x BCD... FO-7024

Colour combination: Base light grey, front frame graphite grey

Note: See following pages for accessories.



Flat enclosure, with open front frame, without terminal compartment

Model	Order no.	A	B	C
BCD 160 Set 08-7035	20163508	178	199	54
BCD 200 Set 08-7035	20203508	203	229	59
BCD 250 Set 08-7035	20253508	233	264	69

Scope of delivery: 1 x BCD... UT-0,5-7035, 1 x BCD... FO-7035

Colour combination: Base light grey, front frame light grey

Note: See following pages for accessories.

Flat enclosure, with open front frame, without terminal compartment

Model	Order no.	A	B	C
BCD 160 Set 08-7024	20162408	178	199	54
BCD 200 Set 08-7024	20202408	203	229	59
BCD 250 Set 08-7024	20252408	233	264	69

Scope of delivery: 1 x BCD... UT-0,5-7035, 1 x BCD... FO-7024

Colour combination: Base light grey, lid frame graphite grey

Note: See following pages for accessories.

Bocard enclosure variants

High enclosure, with front frame open, incl. terminal compartment cover, graphite grey

Model	Order no.	A	B	C
BCD 160 Set 09-7035	20163509	178	199	89
BCD 200 Set 09-7035	20203509	203	229	99
BCD 250 Set 09-7035	20253509	233	264	124

Scope of delivery: 1 x BCD... UT-7035, 1 x BCD... FO-K-7035

Colour combination: Base light grey, front frame light grey

Note: See following pages for accessories.



High enclosure, with front frame open, incl. terminal compartment cover, graphite grey

Model	Order no.	A	B	C
BCD 160 Set 09-7024	20162409	178	199	89
BCD 200 Set 09-7024	20202409	203	229	99
BCD 250 Set 09-7024	20252409	233	264	124

Scope of delivery: 1 x BCD... UT-7035, 1 x BCD... FO-K-7024

Colour combination: Base light grey, lid frame graphite grey

Note: See following pages for accessories.

Flat enclosure, with front frame open, incl. terminal compartment cover, graphite grey

Model	Order no.	A	B	C
BCD 160 Set 10-7035	20163510	178	199	54
BCD 200 Set 10-7035	20203510	203	229	59
BCD 250 Set 10-7035	20253510	233	264	69

Scope of delivery: 1 x BCD... UT-0,5-7035, 1 x BCD... FO-K-7035

Colour combination: Base light grey, front frame light grey

Note: See following pages for accessories.



Flat enclosure, with front frame open, incl. terminal compartment cover, graphite grey

Model	Order no.	A	B	C
BCD 160 Set 10-7024	20162410	178	199	54
BCD 200 Set 10-7024	20202410	203	229	59
BCD 250 Set 10-7024	20252410	233	264	69

Scope of delivery: 1 x BCD... UT-0,5-7035, 1 x BCD... FO-K-7024

Colour combination: Base light grey, lid frame graphite grey

Note: See following pages for accessories.

Bocard enclosure variants



High enclosure, with membrane lid, IP 65

Model	Order no.	A	B	C
BCD 160 Set 11-7035	20163511	178	199	89
BCD 200 Set 11-7035	20203511	203	229	99
BCD 250 Set 11-7035	20253511	233	264	124

Scope of delivery: 1 x BCD... UT-7035, 1 x BCD... OT-F-7035

Colour combination: Base light grey, front lid light grey

Note: See following pages for accessories.

High enclosure, with membrane lid, IP 65

Model	Order no.	A	B	C
BCD 160 Set 11-7024	20162411	178	199	89
BCD 200 Set 11-7024	20202411	203	229	99
BCD 250 Set 11-7024	20252411	233	264	124

Scope of delivery: 1 x BCD... UT-7035, 1 x BCD... OT-F-7024

Colour combination: Base light grey, front lid graphite grey

Note: See following pages for accessories.



Flat enclosure, with membrane lid, IP 65

Model	Order no.	A	B	C
BCD 160 Set 12-7035	20163512	178	199	54
BCD 200 Set 12-7035	20203512	203	229	59
BCD 250 Set 12-7035	20253512	233	264	69

Scope of delivery: 1 x BCD... UT-0,5-7035, 1 x BCD... OT-F-7035

Colour combination: Base light grey, front lid light grey

Note: See following pages for accessories.

Flat enclosure, with membrane lid, IP 65

Model	Order no.	A	B	C
BCD 160 Set 12-7024	20162412	178	199	54
BCD 200 Set 12-7024	20202412	203	229	59
BCD 250 Set 12-7024	20252412	233	264	69

Scope of delivery: 1 x BCD... UT-0,5-7035, 1 x BCD... OT-F-7024

Colour combination: Base light grey, front lid graphite grey

Note: See following pages for accessories.

Bocard enclosure variants

High enclosure, with hinged membrane lid, IP 65

Model	Order no.	A	B	C
BCD 160 Set 13-7035	20163513	179	199	106,5
BCD 200 Set 13-7035	20203513	204	229	116
BCD 250 Set 13-7035	20253513	234	264	141
BCD 310 Set 13-7035	20313513	289	324	145,2
BCD 400 Set 13-7035	20403513	344	404	160,5

Scope of delivery: 1 x BCD... UT-7035, 1 x BCD... OT-FSC-7035

Colour combination: Base light grey, front lid light grey

Note: See following pages for accessories.



High enclosure, with hinged membrane lid, IP 65

Model	Order no.	A	B	C
BCD 160 Set 13-7024	20162413	179	199	106,5
BCD 200 Set 13-7024	20202413	204	229	116
BCD 250 Set 13-7024	20252413	234	264	141
BCD 310 Set 13-7024	20312413	289	324	145,2
BCD 400 Set 13-7024	20402413	344	404	160,5

Scope of delivery: 1 x BCD... UT-7035, 1 x BCD... OT-FSC-7024

Colour combination: Base light grey, front lid graphite grey

Note: See following pages for accessories.

Flat enclosure, with hinged membrane lid, IP 65

Model	Order no.	A	B	C
BCD 160 Set 14-7035	20163514	179	199	71,5
BCD 200 Set 14-7035	20203514	204	229	76
BCD 250 Set 14-7035	20253514	234	264	86
BCD 310 Set 14-7035	20313514	289	324	111,2
BCD 400 Set 14-7035	20403514	344	404	112

Scope of delivery: 1 x BCD... UT-0,5-7035, 1 x BCD... OT-FSC-7035

Colour combination: Base light grey, front lid light grey

Note: See following pages for accessories.



Flat enclosure, with hinged membrane lid, IP 65

Model	Order no.	A	B	C
BCD 160 Set 14-7024	20162414	179	199	71,5
BCD 200 Set 14-7024	20202414	204	229	76
BCD 250 Set 14-7024	20252414	234	264	86
BCD 310 Set 14-7024	20312414	289	324	111,2
BCD 400 Set 14-7024	20402414	344	404	112

Scope of delivery: 1 x BCD... UT-0,5-7035, 1 x BCD... OT-FSC-7024

Colour combination: Base light grey, front lid graphite grey

Note: See following pages for accessories.

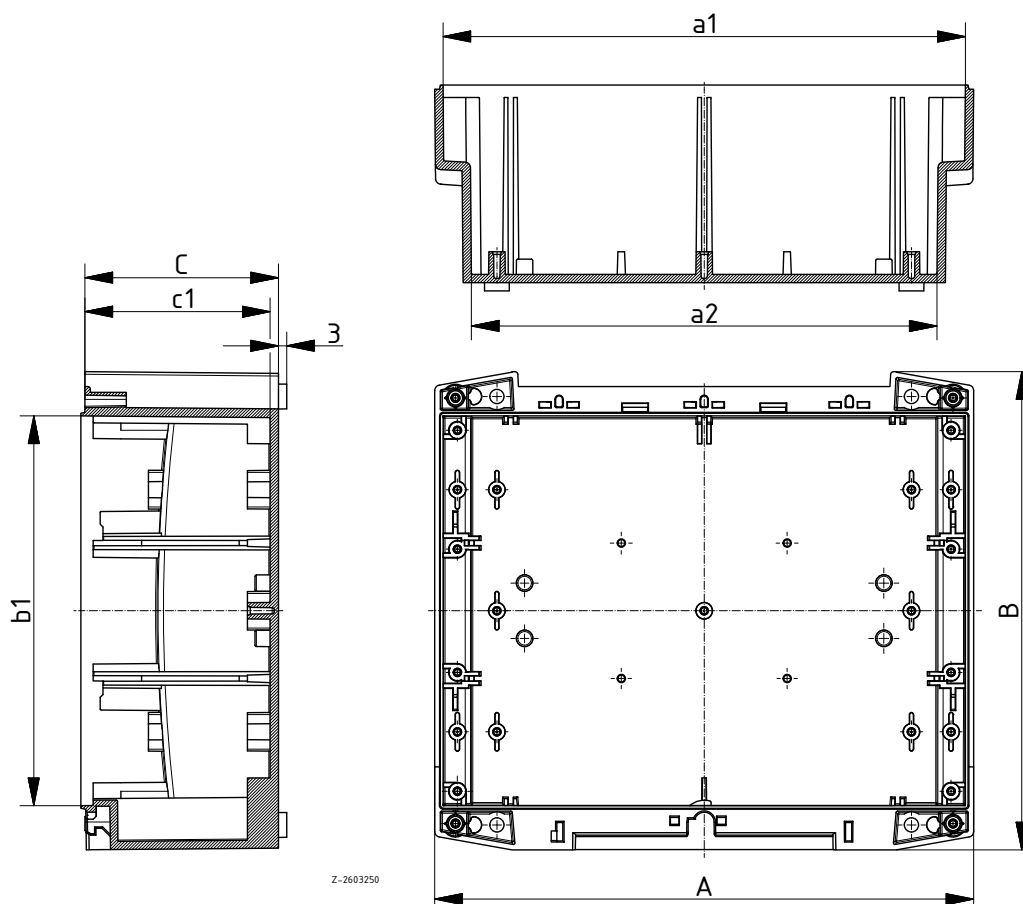
Bocard bases



Base, high

Model	Order no.	A	B	C	a1	a2	b1	c1	Colour
BCD 160 UT-7035	20160135	195	173	70	189	168,5	141	67	Light grey
BCD 160 UT-7024	20160124	195	173	70	189	168,5	141	67	Graphite grey
BCD 200 UT-7035	20200135	225	198	80	219	198,3	166	77	Light grey
BCD 200 UT-7024	20200124	225	198	80	219	198,3	166	77	Graphite grey
BCD 250 UT-7035	20250135	260	228	105	254	232,8	196	102	Light grey
BCD 250 UT-7024	20250124	260	228	105	254	232,8	196	102	Graphite grey
BCD 310 UT-7035	20310135	320	283	105	312	290,8	243	101	Light grey
BCD 400 UT-7035	20400135	400	338	120	391	369,6	297	115,5	Light grey

Scope of delivery: 1 Base, high



Z-2603250

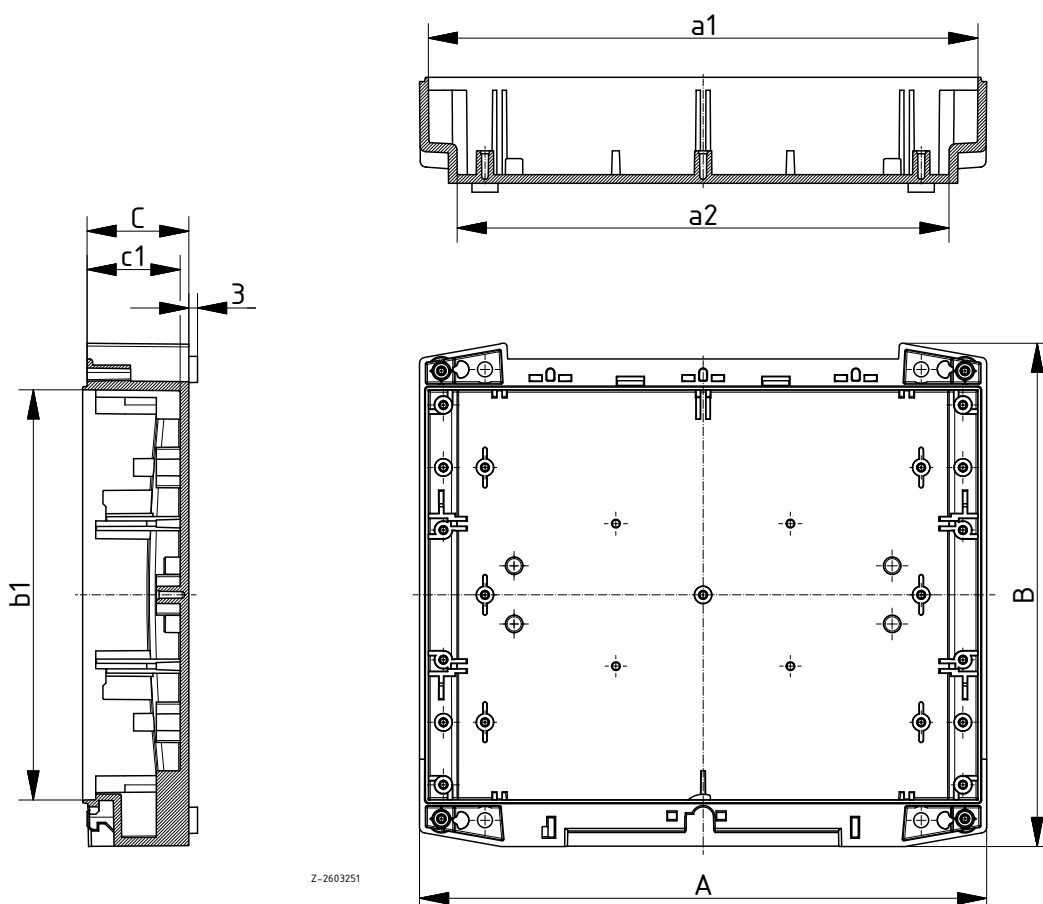
Bocard bases



Base, flat

Model	Order no.	A	B	C	a1	a2	b1	c1	Colour
BCD 160 UT-0,5-7035	20160235	195	173	35	189	169	141	32	Light grey
BCD 160 UT-0,5-7024	20160224	195	173	35	189	169	141	32	Graphite grey
BCD 200 UT-0,5-7035	20200235	225	198	40	219	199	166	37	Light grey
BCD 200 UT-0,5-7024	20200224	225	198	40	219	199	166	37	Graphite grey
BCD 250 UT-0,5-7035	20250235	260	228	50	254	233,8	196	47	Light grey
BCD 250 UT-0,5-7024	20250224	260	228	50	254	233,8	196	47	Graphite grey
BCD 310 UT-0,5-7035	20310235	320	283	71	312	291,4	243	67	Light grey
BCD 400 UT-0,5-7035	20400235	400	338	71,5	391	370,5	297	67	Light grey

Scope of delivery: 1 Base, flat



Z-2603251

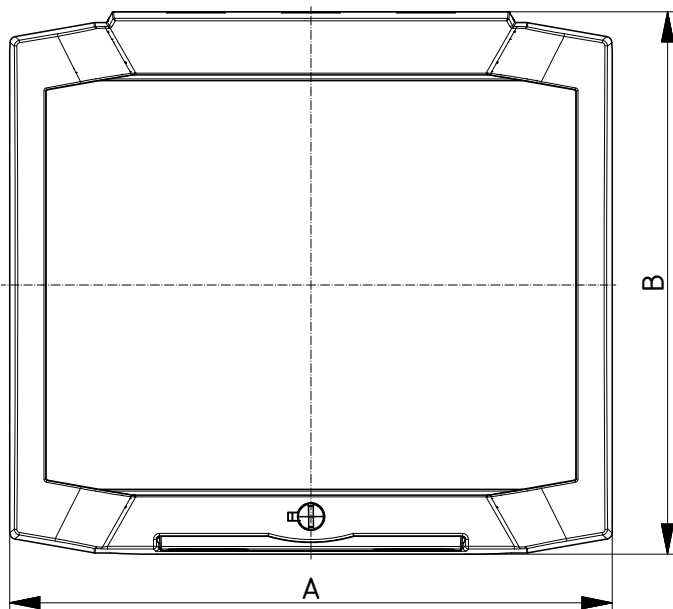
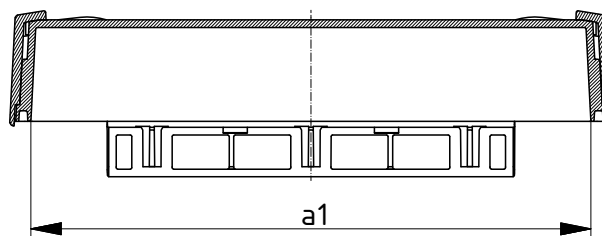
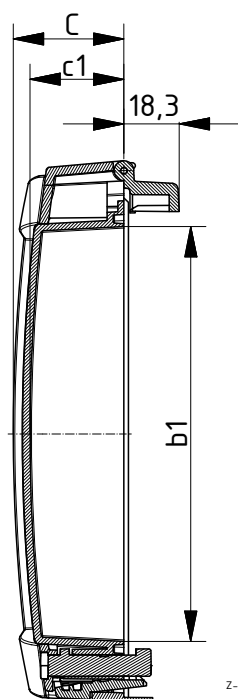
Bocard lids



Hinged front lid, crystal-clear

Model	Order no.	A	B	C	a1	b1	c1	Colour
BCD 160 OT-G-7035	20161035	199	179,2	36,5	185	137	31	Light grey
BCD 160 OT-G-7024	20161024	199	179,2	36,5	185	137	31	Graphite grey
BCD 200 OT-G-7035	20201035	229	204,2	36,1	215	162	31,8	Light grey
BCD 200 OT-G-7024	20201024	229	204,2	36,1	215	162	31,8	Graphite grey
BCD 250 OT-G-7035	20251035	264	234,2	36	250	192	31,9	Light grey
BCD 250 OT-G-7024	20251024	264	234,2	36	250	192	31,9	Graphite grey
BCD 310 OT-G-7035	20311035	324	289,2	37,2	308	239	31,7	Light grey
BCD 310 OT-G-7024	20311024	324	289,2	37,2	308	239	31,7	Graphite grey
BCD 400 OT-G-7035	20401035	404	344,2	37,5	387	293	31,5	Light grey
BCD 400 OT-G-7024	20401024	404	344,2	37,5	387	293	31,5	Graphite grey

Scope of delivery: 1 front lid, hinged, 1 catch, 1 blind plug



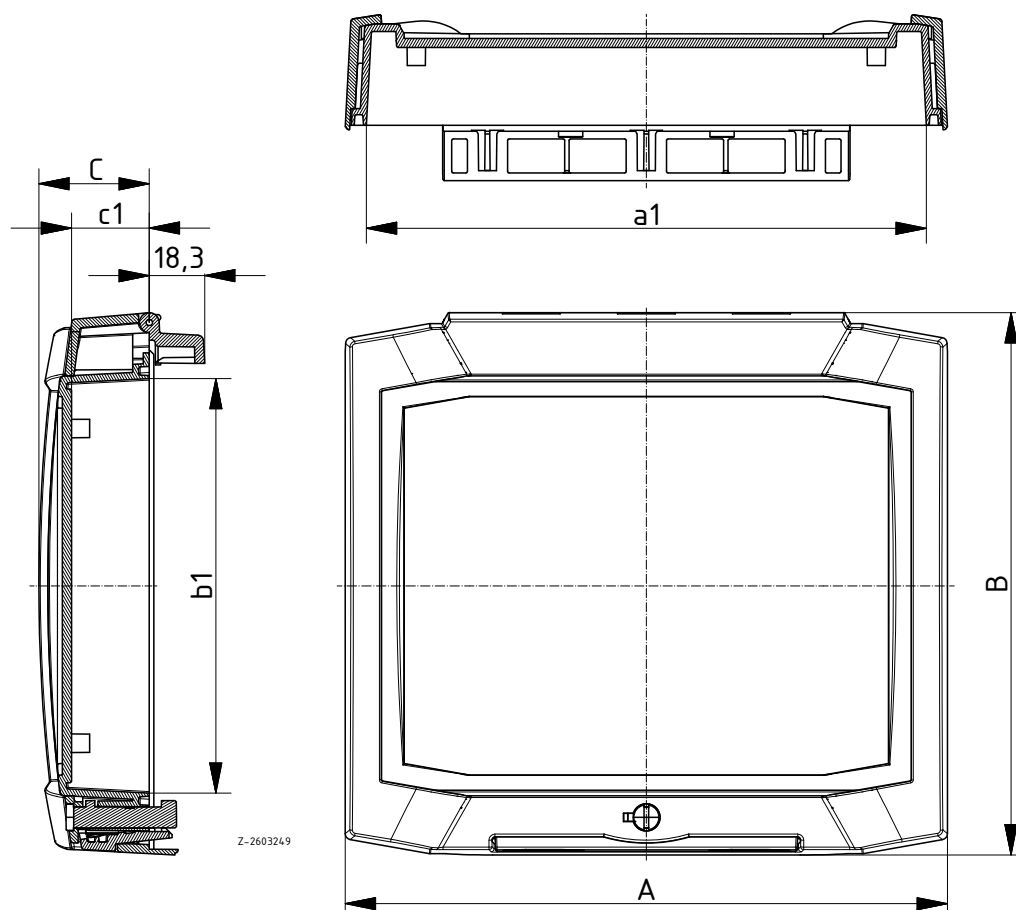
Z-2603248

Bocard lids

Hinged front lid with membrane keypad area

Model	Order no.	A	B	C	a1	b1	c1	Colour
BCD 160 OT-FSC-7035	20161535	199	179,2	36,5	185	137	25,7	Light grey
BCD 160 OT-FSC-7024	20161524	199	179,2	36,5	185	137	25,7	Graphite grey
BCD 200 OT-FSC-7035	20201535	229	204,2	36,1	215	162	25,7	Light grey
BCD 200 OT-FSC-7024	20201524	229	204,2	36,1	215	162	25,7	Graphite grey
BCD 250 OT-FSC-7035	20251535	264	234,2	36	250	192	25,7	Light grey
BCD 250 OT-FSC-7024	20251524	264	234,2	36	250	192	25,7	Graphite grey
BCD 310 OT-FSC-7035	20311535	324	289,2	37,2	308	239	25,2	Light grey
BCD 310 OT-FSC-7024	20311524	324	289,2	37,2	308	239	25,2	Graphite grey
BCD 400 OT-FSC-7035	20401535	404	344,2	37,5	387	293	24,7	Light grey
BCD 400 OT-FSC-7024	20401524	404	344,2	37,5	387	293	24,7	Graphite grey

Scope of delivery: 1 front lid, hinged, 1 catch, 1 blind plug



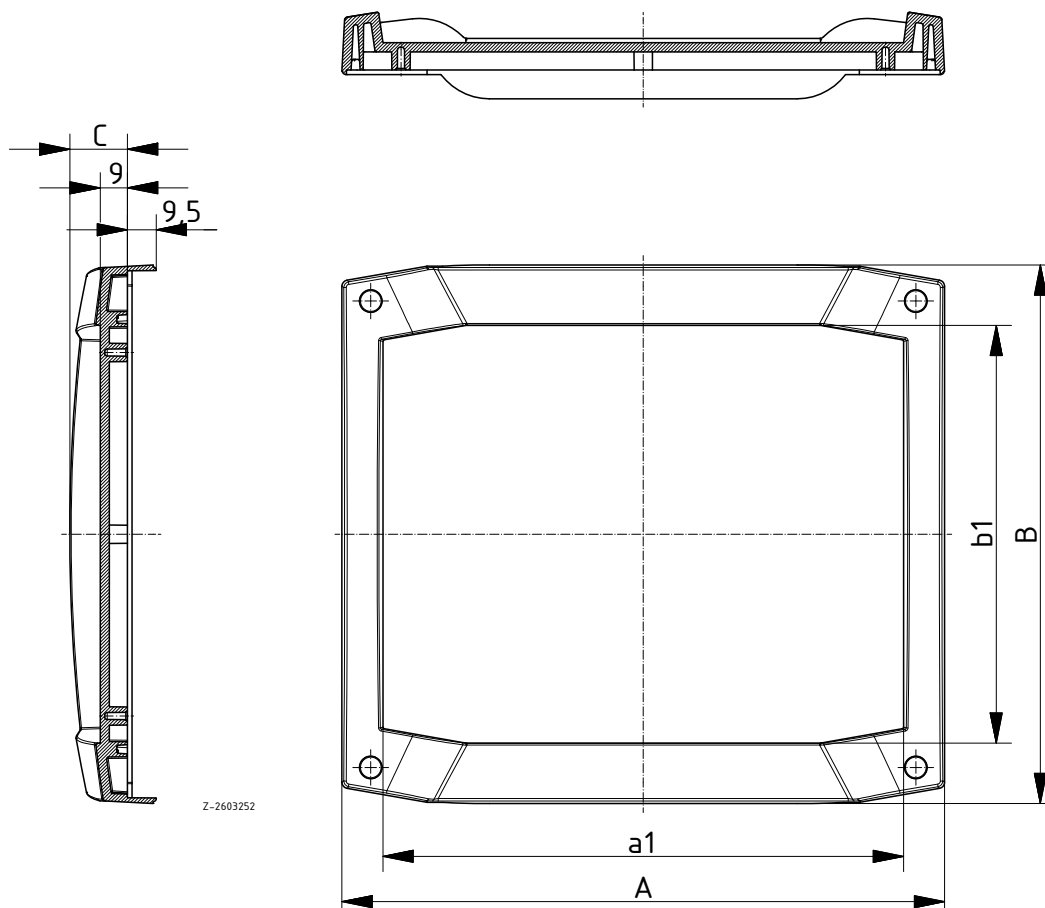
Bocard lids



Screw-on front lid with membrane keypad area

Model	Order no.	A	B	C	a1	b1	Colour
BCD 160 OT-F-7035	20161335	199	177,85	19	171,9	137,9	Light grey
BCD 160 OT-F-7024	20161324	199	177,85	19	171,9	137,9	Graphite grey
BCD 200 OT-F-7035	20201335	229	202,85	18,7	202,2	162,9	Light grey
BCD 200 OT-F-7024	20201324	229	202,85	18,7	202,2	162,9	Graphite grey
BCD 250 OT-F-7035	20251335	264	232,85	18,6	237,5	192,9	Light grey
BCD 250 OT-F-7024	20251324	264	232,85	18,6	237,5	192,9	Graphite grey

Scope of delivery: 1 front lid, screws, screw covers

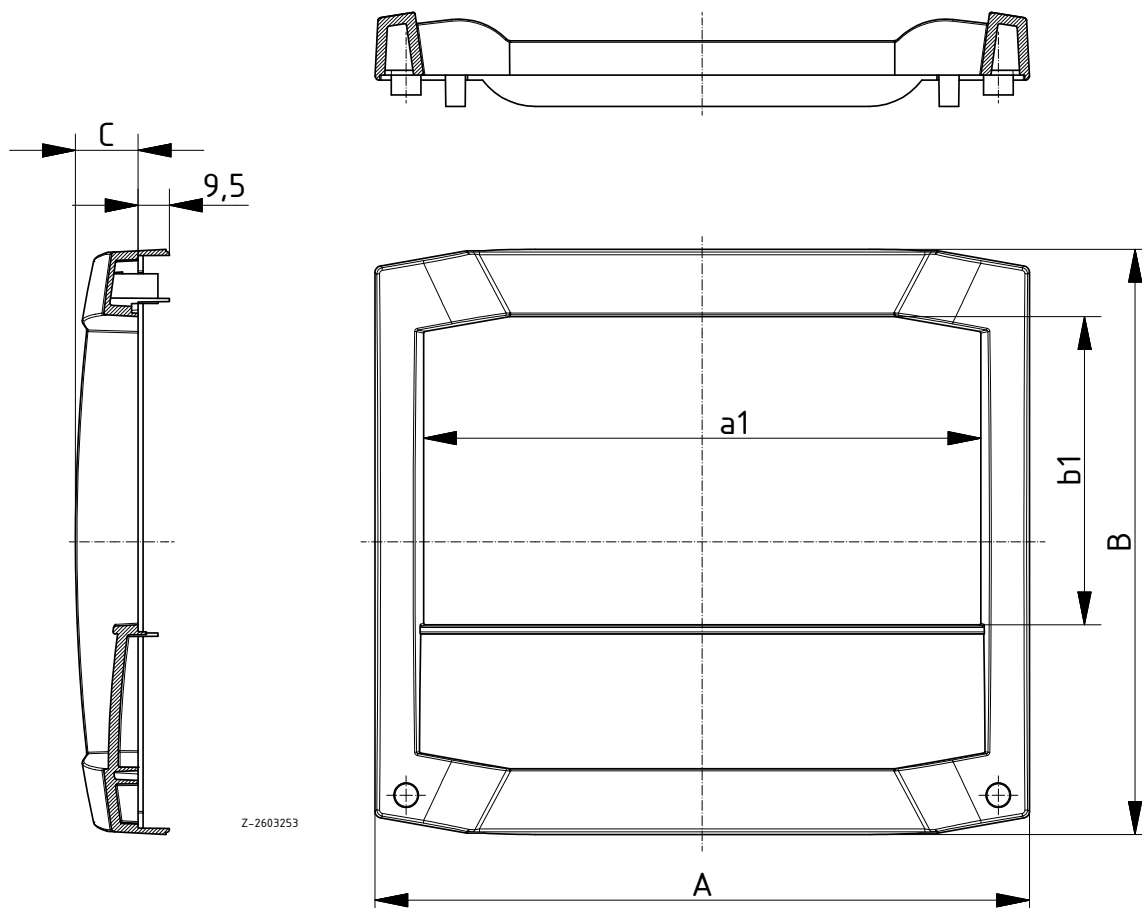


Bocard lids

Screw-on open front frame with terminal compartment cover, screw-on

Model	Order no.	A	B	C	a1	b1	Colour
BCD 160 FO-K-7035	20161235	199	177,85	19	169,3	93,7	Light grey
BCD 160 FO-K-7024	20161224	199	177,85	19	169,3	93,7	Graphite grey
BCD 200 FO-K-7035	20201235	229	202,85	18,7	199,7	108,7	Light grey
BCD 200 FO-K-7024	20201224	229	202,85	18,7	199,7	108,7	Graphite grey
BCD 250 FO-K-7035	20251235	264	232,85	18,6	235	131,7	Light grey
BCD 250 FO-K-7024	20251224	264	232,85	18,6	235	131,7	Graphite grey

Scope of delivery: 1 front frame with terminal compartment cover, screws, screw covers



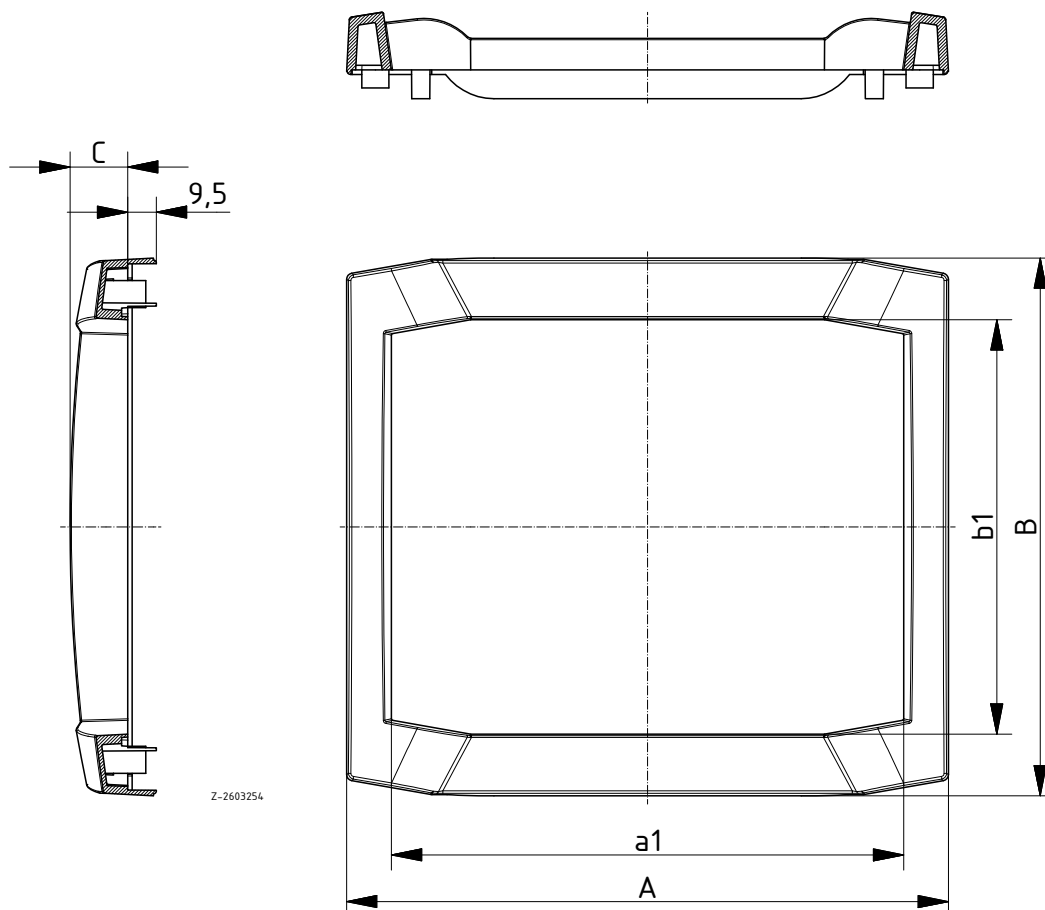
Bocard lids



Open front frame, clip-on

Model	Order no.	A	B	C	a1	b1	Colour
BCD 160 FO-7035	20161135	199	177,85	19	169,3	137	Light grey
BCD 160 FO-7024	20161124	199	177,85	19	169,3	137	Graphite grey
BCD 200 FO-7035	20201135	229	202,85	18,7	199,7	162	Light grey
BCD 200 FO-7024	20201124	229	202,85	18,7	199,7	162	Graphite grey
BCD 250 FO-7035	20251135	264	232,85	18,6	235	192	Light grey
BCD 250 FO-7024	20251124	264	232,85	18,6	235	192	Graphite grey

Scope of delivery: 1 front frame



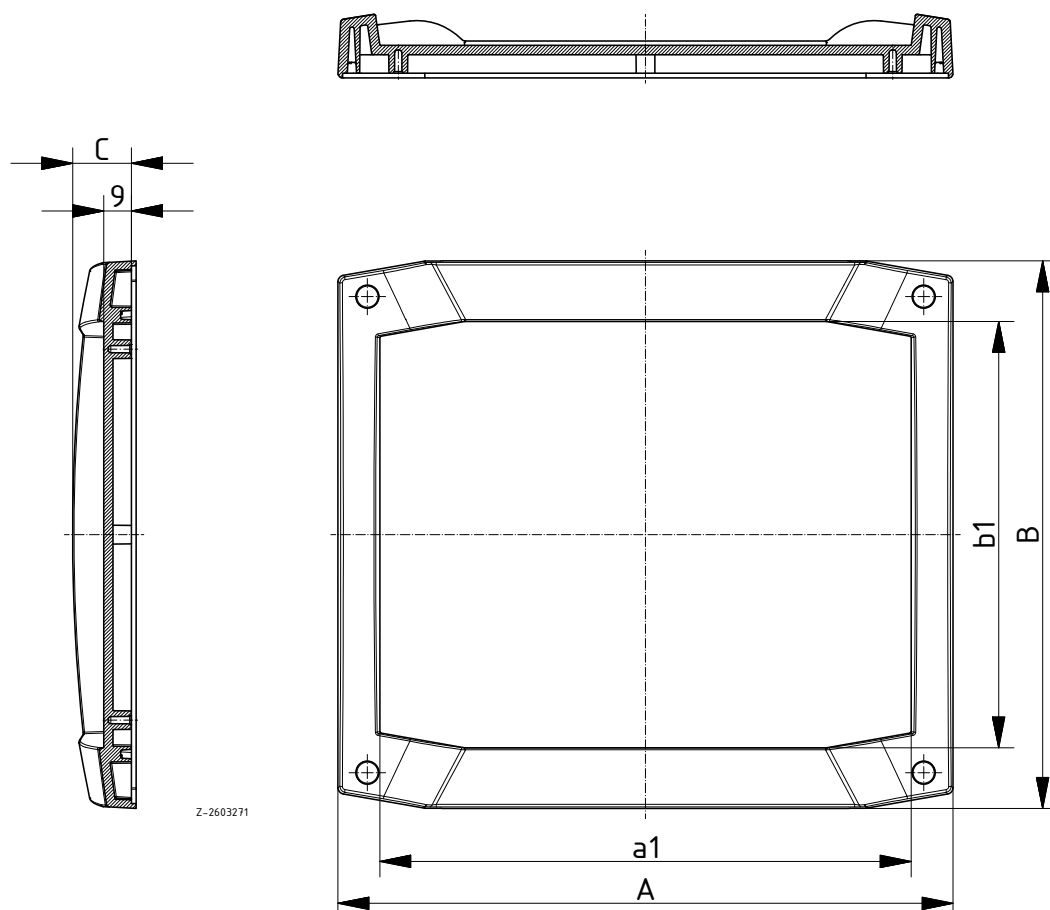
Bocard installation area

Installation area with membrane keypad area

Model	Order no.	A	B	C	a1	b1	Colour
BCD 160 CF-7035	20161435	199	177,85	19	171,9	137,9	Light grey
BCD 160 CF-7024	20161424	199	177,85	19	171,9	137,9	Graphite grey
BCD 200 CF-7035	20201435	229	202,85	18,7	202,2	162,9	Light grey
BCD 200 CF-7024	20201424	229	202,85	18,7	202,2	162,9	Graphite grey
BCD 250 CF-7035	20251435	264	232,85	18,6	237,5	192,9	Light grey
BCD 250 CF-7024	20251424	264	232,85	18,6	237,5	192,9	Graphite grey

Scope of delivery: 1 installation area, screws, screw covers

Note: Protection class IP 40 towards the control panel wall. Up to protection class IP 65 can be achieved with seal CF-DI (accessory). The CF front cannot be used with Bocard bases.



Bocard accessories



Terminal compartment lid with membrane keypad area, screw-on

Model	Order no.	Colour	Note
BCD 160 KRD-7035	20162035	Light grey	For BCD 160
BCD 160 KRD-7024	20162024	Graphite grey	For BCD 160
BCD 200 KRD-7035	20202035	Light grey	For BCD 200
BCD 200 KRD-7024	20202024	Graphite grey	For BCD 200
BCD 250 KRD-7035	20252035	Light grey	For BCD 250
BCD 250 KRD-7024	20252024	Graphite grey	For BCD 250
BCD 310 KRD-7035	20312035	Light grey	For BCD 310
BCD 310 KRD-7024	20312024	Graphite grey	For BCD 310
BCD 400 KRD-7035	20402035	Light grey	For BCD 400
BCD 400 KRD-7024	20402024	Graphite grey	For BCD 400

Scope of delivery: 1 terminal compartment lid, 2 screws



Handle elements, graphite grey plastic

Model	Order no.	Note
BCD 160 GE-7024	20167024	For BCD 160
BCD 200 GE-7024	20207024	For BCD 200
BCD 250 GE-7024	20257024	For BCD 250

Scope of delivery: 2 handle elements, 1 cover for hinge bearing, 8 screws, 6 rubber feet



Tip-up bow for handle element

Model	Order no.	Note
BCD 160 GE-B	20167100	For BCD 160 GE-7024
BCD 200 GE-B	20207100	For BCD 200 GE-7024
BCD 250 GE-B	20257100	For BCD 250 GE-7024

Scope of delivery: 1 tip-up bow



Handle / tip-up bow, hinged

Model	Order no.	Note
BCD 160 HS 2-9005	20008070	For BCD 160
BCD 200 HS 2-9005	20008071	For BCD 200
BCD 250 HS 2-9005	20008072	For BCD 250

Scope of delivery: 2 side parts, 2 anti-slip elements, handle profile, fixing material

Note: BOPLA can carry out the necessary processing of the base with individual adaptation of the position.

Bocard accessories

Wall brackets

Model	Order no.	Colour
BCD WL-7035	20007000	Light grey
BCD WL-7024	20007001	Graphite grey

Scope of delivery: 4 wall brackets, screws

Note: For 4-point wall fixing without opening the enclosure. Fitting to rear of enclosure from the outside. Suitable for all enclosures in this series.



Wall-mounting fastening bracket, powder-coated sheet steel

Model	Order no.	Colour	Note
BCD 160 WB-7035	20008080	Light grey	For BCD 160
BCD 200 WB-7035	20008081	Light grey	For BCD 200
BCD 250 WB-7035	20008082	Light grey	For BCD 250

Scope of delivery: 1 Wall-mounting fastening bracket, screws

Note: Special colours on request. Fitting to the enclosure rear is from the outside.



Wall fitting for flat bases (BCD...-0,5), swivelling

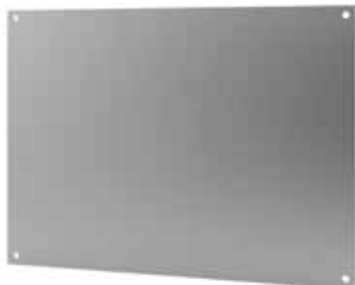
Model	Order no.	Note
BCD 160-0.5-7024 UWB	20816024	For BCD 160
BCD 200-0.5-7024 UWB	20820024	For BCD 200
BCD 250-0.5-7024 UWB	20825024	For BCD 250

Scope of delivery: Profile, 2 side flanges (complete), screws, covers

Note: Fixed positions in 10° detent stages. Mechanical processing of the enclosures is required.



Bocard accessories



Front panels, natural-coloured anodised aluminium

Model	Order no.	Note
BCD FP 160	20163000	For BCD 160
BCD FP 200	20203000	For BCD 200
BCD FP 250	20253000	For BCD 250

Scope of delivery: 1 front panel

Note: Front panels with a max. thickness of 3 mm can be fitted to the enclosures in this series. Please order fixing screws separately (order no. 59006233). Additional sizes on request.



Front panels for enclosures with terminal compartment, natural-coloured anodised aluminium

Model	Order no.	Note
BCD FP 160 K	20163100	For BCD 160
BCD FP 200 K	20203100	For BCD 200
BCD FP 250 K	20253100	For BCD 250

Scope of delivery: 1 front panel for enclosures with terminal compartment

Note: Front panels with a max. thickness of 3 mm can be fitted to the enclosures in this series. Please order fixing screws separately (order no. 59006233). Additional sizes on request.



Front panels for enclosures with 2 terminal compartments, natural-coloured anodised aluminium

Model	Order no.	Note
BCD FP 160 BK	20163200	For BCD 160
BCD FP 200 BK	20203200	For BCD 200
BCD FP 250 BK	20253200	For BCD 250

Scope of delivery: 1 front panel for enclosures with 2 terminal compartments

Note: Front panels with a max. thickness of 3 mm can be fitted to the enclosures in this series. Please order fixing screws separately (order no. 59006233). Additional sizes on request.



Front panels, ABS light grey, embossed on one side

Model	Order no.	Note
BCD FPK 160	20164000	For BCD 160
BCD FPK 200	20204000	For BCD 200
BCD FPK 250	20254000	For BCD 250

Scope of delivery: 1 front panel

Note: Front panels with a max. thickness of 3 mm can be fitted to the enclosures in this series. Please order fixing screws separately (order no. 59006233). Additional sizes on request.

Bocard accessories

Front panels for enclosures with terminal compartment, ABS light grey, embossed on one side

Model	Order no.	Note
BCD FPK 160 K	20164100	For BCD 160
BCD FPK 200 K	20204100	For BCD 200
BCD FPK 250 K	20254100	For BCD 250

Scope of delivery: 1 front panel for enclosures with terminal compartment

Note: Front panels with a max. thickness of 3 mm can be fitted to the enclosures in this series. Please order fixing screws separately (order no. 59006233). Additional sizes on request.



Front panels for enclosures with 2 terminal compartments, ABS light grey, embossed on one side

Model	Order no.	Note
BCD FPK 160 BK	20164200	For BCD 160
BCD FPK 200 BK	20204200	For BCD 200
BCD FPK 250 BK	20254200	For BCD 250

Scope of delivery: 1 front panel for enclosures with 2 terminal compartments

Note: Front panels with a max. thickness of 3 mm can be fitted to the enclosures in this series. Please order fixing screws separately (order no. 59006233). Additional sizes on request.



Mounting panels, laminated paper

Model	Order no.	Note
BCD M 160	20166000	For BCD 160
BCD M 200	20206000	For BCD 200
BCD M 250	20256000	For BCD 250

Scope of delivery: 1 mounting panel

Note: Please order fixing screws separately (order no. 59006233).



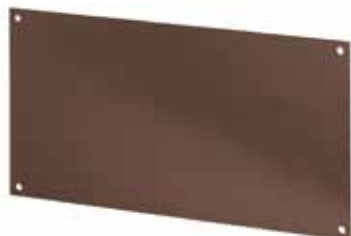
Panels for dividing terminal compartments, insertable, laminated paper

Model	Order no.	Note
BCD TP 160	20165000	For BCD 160 UT
BCD TP 160-0,5	20165100	For BCD 160 UT-0,5
BCD TP 200	20205000	For BCD 200 UT
BCD TP 200-0,5	20205100	For BCD 200 UT-0,5
BCD TP 250	20255000	For BCD 250 UT
BCD TP 250-0,5	20255100	For BCD 250 UT-0,5

Scope of delivery: 1 partition panel



Bocard accessories



Partitions for dividing electronics compartments, screw-on, laminated paper

Model	Order no.	Note
BCD TP 160 F	20165200	For BCD 160
BCD TP 200 F	20205200	For BCD 200
BCD TP 250 F	20255200	For BCD 250

Scope of delivery: 1 partition panel

Note: Please order fixing screws separately (order no. 59006233). Additional sizes on request.



Cylinder lock for front lid BCD...OT-G and BCD...OT-FSC-...

Model	Order no.
SHLO 402	21008320

Scope of delivery: 1 lock, 2 keys

Note: The lock can be inserted into the opening in the BCD ... OT-G and BCD...OT-FSC-... at a later date. If a blind plug or catch has been fitted, it can be pushed out from the rear. The key can only be removed from the locked position.



DIN rail holder for rails DIN 60715 TH 35

Model	Order no.	Colour
TSH 35-2	20035000	Black

Scope of delivery: 2 DIN rail holders, screws

Note: Fixing domes for fitting of the TSH 35-2 are already moulded onto the Bocard bases up to size BCD 250. The ingress protection category for the Bocard enclosure is not affected.

Bocard accessories

DIN rails TS 15 / TS 35, top hat rail DIN EN 60715 TH 15 / TH 35

Model	Order no.	Note
TS 15.160.1	22151601	For BCD 160, terminal compartment, down
TS 15.185.1	22151851	For BCD 160, terminal compartment up
TS 35.160.1	22351601	For BCD 160, centre down
TS 15.215.1	22152151	For BCD 200, terminal compartment up
TS 35.198.1	22351981	For BCD 200, centre on distance bolt
TS 15.225.1	22152251	For BCD 250, terminal compartment down
TS 15.250.1	22152501	For BCD 250, terminal compartment up
TS 35.225.1	22352251	For BCD 250, terminal compartment, down / centre down
TS 35.233.1	22352331	For BCD 250, centre on distance bolt

Scope of delivery: 1 DIN rail

Note: Please order fixing screws separately (order no. 59006233). Additional sizes on request.



Fixing screws for DIN rails, front / mounting panels and partitions

Model	Order no.	Note
SHR Z KA 30 x 10	59006233	Galvanised steel

Scope of delivery: 1 screw

Distance bolts for mounting bosses, Ø 2.4-2.6 mm

Model	Order no.	Note
DIBLZ AK 30x5/IM3/10	59006986	ND = 2.4-2.6

Scope of delivery: 1 distance bolt

Note: The distance bolt can also be used to fix PCBs or mounting panels. This also makes it possible to fit (clearance 10 mm; M3) a parallel PCB or mounting panel. ND = boss internal diameter.



Seals for installation area

Model	Order no.	Note
BCD 160 CF-DI	20161400	For BCD 160 CF
BCD 200 CF-DI	20201400	For BCD 200 CF
BCD 250 CF-DI	20251400	For BCD 250 CF

Scope of delivery: 1 seal

Note: Alternatively the seal can be glued to the control panel (positioned over the internal cut-out) or to the installation area.

Ingress protection acc. to DIN EN 60529 possible up to max. IP 65, depending on thickness and type of control panel.



RegloCard-Plus / Combifront / InterCard

Enclosure for a range of uses
with separately accessible
terminal compartment

- 8 sizes
- Various designs
- Enclosure with display cut-out or continuous membrane keypad area
- Various battery compartments
- With matching desktop and charging station, depending on model



Colour	Light grey, similar to RAL 7035; special colours on request
Protection class	Up to IP 65/DIN EN 60529, depending on the model
Enclosure material	ABS, PC; seal made of EPDM; UL 94 V0 types on request; for details see Technical Information

The enclosures are available with Pg or metric pre-punchings. The positions of the pre-punchings remain the same and allow problem-free change from Pg to metric. We recommend drilling open the pre-punchings in order to prevent damage to the enclosure. For details on the pre-punchings, see www.BOPLA.de. Matching cable glands are in the corresponding chapter. Versions without pre-punchings on request.

All models are available on request in UL 94 V0, enclosure material in Lexan 500 R, crystal-clear lid in Lexan 940 A. Only the RCP/RCPM...00 V0 types are included in the tables; all other models are also available on request.





Welcome to BOPLA City!



RCP 1000:

- Crystal-clear lid (PC) with hinge and snap lock
- IP 65
- Sturdy hinge technology
- Snap lock, can be lead-sealed without special parts
- Front panel up to 3 mm thick
- Hinged side easily reversed by turning the lid including hinge and snap lock
- Hinge opens as far as wall stop
- A blind plug and catch (VDE approved) are included



RCP 100:

- IP 40
- Front panel thickness up to 3 mm
- The covering frame protects the external edges of fitted membrane keypads
- The covering frame conceals the front panel screws
- Covering frame sealable by drilling through the lead seal inlets
- Enclosure can be retro-fitted with a clear lid



RCP F:

- IP 65 up to type 250 F
- IP 54 from type 310 F and higher
- No separate front panel required
- Recessed membrane keypad area
- Full-protection insulated
- Attachable
- Mounting bosses on the inside of the lid for parallel fixing of circuit boards



CF:

- Front lid can also be used separately as an installation area
- IP 54 protected installation area by means of continuous seal



IC 5000:

- IP 65
- Crystal-clear lid with hinge and snap lock
- Large number of horizontal and vertical insertion grooves
- Hinge side freely selectable

RegloCard-Plus

with crystal-clear lid,

hinged and with snap lock, IP 65



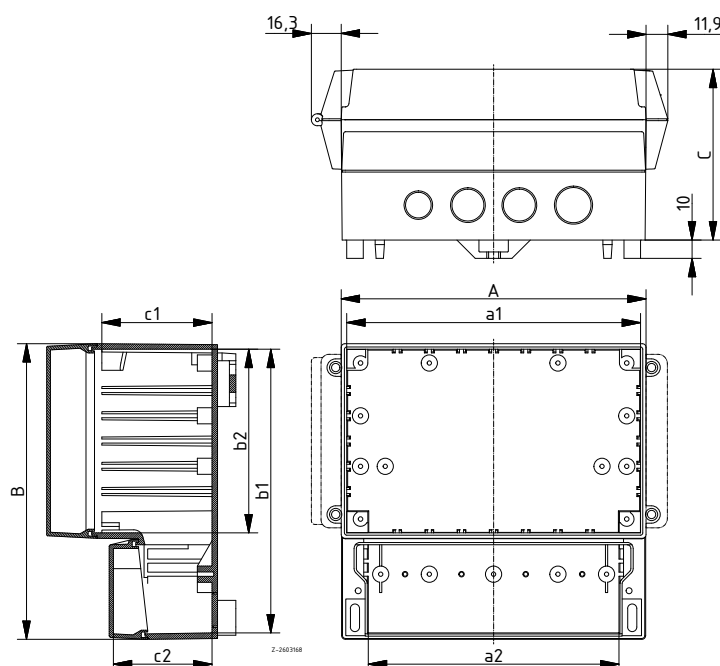
Enclosure with Pg pre-punchings in the terminal compartment

Model	Order no.	A	B	C	a1	a2	b1	b2	c1	c2	Note
RCP 1300	41130109	131	186	103	125/124	101,5	179	125	70	53,5	1 x Pg 9, 1 x Pg 11, 1 x Pg 13,5
RCP 1300 VO	41130400*	131	186	103	125/124	101,5	179	125	70	53,5	1 x Pg 9, 1 x Pg 11, 1 x Pg 13,5
RCP 1600	41160109	166	161	93	160/159	136,5	154	100	60	53,5	1 x Pg 9, 2 x Pg 11, 1 x Pg 13,5
RCP 1600 VO	41160400*	166	161	93	160/159	136,5	154	100	60	53,5	1 x Pg 9, 2 x Pg 11, 1 x Pg 13,5
RCP 1700	41170109	166	161	121	160/159	136,5	154	100	88	53,5	1 x Pg 9, 2 x Pg 11, 1 x Pg 13,5
RCP 1700 VO	41170400*	166	161	121	160/159	136,5	154	100	88	53,5	1 x Pg 9, 2 x Pg 11, 1 x Pg 13,5
RCP 2000	41200309	213	185	104,5	207/206	183,5	178	119	71,5	53,5	1 x Pg 9, 4 x Pg 11, 1 x Pg 13,5
RCP 2000 VO	41200400*	213	185	104,5	207/206	183,5	178	119	71,5	53,5	1 x Pg 9, 4 x Pg 11, 1 x Pg 13,5
RCP 2500	41250109	257	217	132,5	251/250	227,5	210	151	99,5	63,5	1 x Pg 9, 5 x Pg 11, 1 x Pg 13,5
RCP 2500 VO	41250400*	257	217	132,5	251/250	227,5	210	151	99,5	63,5	1 x Pg 9, 5 x Pg 11, 1 x Pg 13,5
RCP 3100	41310109	296	261	132,5	290/289	266,5	254	190	99,5	63,5	1 x Pg 9, 5 x Pg 11, 1 x Pg 13,5
RCP 3100 VO	41310400*	296	261	132,5	290/289	266,5	254	190	99,5	63,5	1 x Pg 9, 5 x Pg 11, 1 x Pg 13,5
RCP 3500	41350109	296	281	158	290/289	266,5	274	190	125	84,5	1 x Pg 9, 6 x Pg 11, 1 x Pg 13,5
RCP 3500 VO	41350400*	296	281	158	290/289	266,5	274	190	125	84,5	1 x Pg 9, 6 x Pg 11, 1 x Pg 13,5
RCP 4000	41400109	363,4	318,6	150	355/354	326,5	309	225	114,5	71	1 x Pg 11, 6 x Pg 13,5, 1 x Pg 16
RCP 4000 VO	41400400*	363,4	318,6	150	355/354	326,5	309	225	114,5	71	1 x Pg 11, 6 x Pg 13,5, 1 x Pg 16

Scope of delivery: Base, crystal-clear lid, hinged, mounted with snap lock, terminal compartment lid, catch, blind plug, screws

Note: * = Available on request. Enclosures without pre-punchings on request.

See following pages for accessories.





RegloCard-Plus

with crystal-clear lid, hinged and with snap lock, IP 65

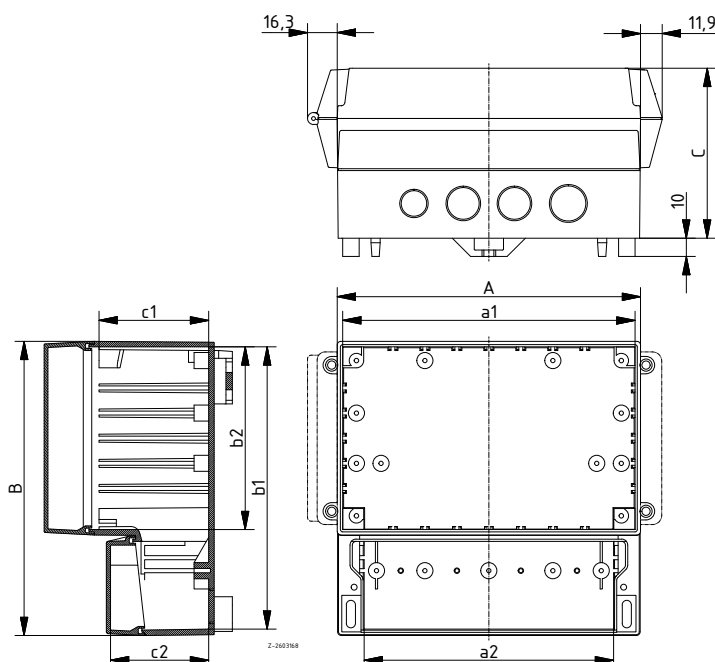
Enclosure with metric pre-punchings in the terminal compartment

Model	Order no.	A	B	C	a1	a2	b1	b2	c1	c2	Note
RCPM 1300	41131109	131	186	103	125/124	101,5	309	225	70	53,5	1 x M 12, 1 x M 16, 1 x M 20
RCPM 1300 V0	41131400*	131	186	103	125/124	101,5	179	125	70	53,5	1 x M 12, 1 x M 16, 1 x M 20
RCPM 1600	41161109	166	161	93	160/159	136,5	154	100	60	53,5	1 x M 12, 2 x M 16, 1 x M 20
RCPM 1600 V0	41161400*	166	161	93	160/159	136,5	154	100	60	53,5	1 x M 12, 2 x M 16, 1 x M 20
RCPM 1700	41171109	166	161	121	160/159	136,5	154	100	88	53,5	1 x M 12, 2 x M 16, 1 x M 20
RCPM 1700 V0	41171400*	166	161	121	160/159	136,5	154	100	88	53,5	1 x M 12, 2 x M 16, 1 x M 20
RCPM 2000	41201309	213	185	104,5	207/206	183,5	178	119	71,5	53,5	1 x M 12, 4 x M 16, 1 x M 20
RCPM 2000 V0	41201400*	213	185	104,5	207/206	185,5	178	119	71,5	53,5	1 x M 12, 4 x M 16, 1 x M 20
RCPM 2500	41251109	257	217	132,5	251/250	227,5	210	151	99,5	63,5	1 x M 12, 5 x M 16, 1 x M 20
RCPM 2500 V0	41251400*	257	217	132,5	251/250	227,5	210	151	99,5	63,5	1 x M 12, 5 x M 16, 1 x M 20
RCPM 3100	41311109	296	261	132,5	290/289	266,5	254	190	99,5	63,5	1 x M 12, 5 x M 16, 1 x M 20
RCPM 3100 V0	41311400*	296	261	132,5	290/289	266,5	254	190	99,5	63,5	1 x M 12, 5 x M 16, 1 x M 20
RCPM 3500	41351100	296	281	158	290/289	266,5	274	190	125	84,5	1 x M 12, 6 x M 16, 1 x M 20
RCPM 3500 V0	41351400*	296	281	158	290/289	266,5	274	190	125	84,5	1 x M 12, 6 x M 16, 1 x M 20
RCPM 4000	41401109	363,4	318,6	150	355/354	326,5	309	225	114,5	71	1 x M 16, 6 x M 20, 1 x M 25
RCPM 4000 V0	41401400*	363,4	318,6	150	355/354	326,5	309	225	114,5	71	1 x M 16, 6 x M 20, 1 x M 25

Scope of delivery: Base, crystal-clear lid, hinged, mounted with snap lock, terminal compartment lid, catch, blind plug, screws

Note: Enclosures without pre-punchings on request.

See following pages for accessories.



RegloCard-Plus

with clip-on covering frame



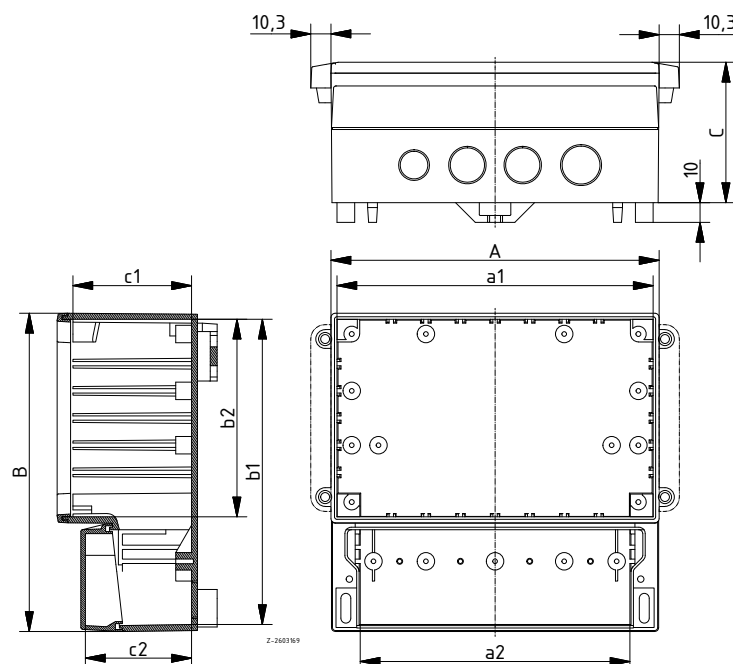
Enclosure with Pg pre-punchings in the terminal compartment

Model	Order no.	A	B	C	a1	a2	b1	b2	c1	c2	Note
RCP 130	41130009	131	186	81	125/124	101,5	179	125	70	53,5	1 x Pg 9, 1 x Pg 11, 1 x Pg 13,5
RCP 160	41160009	166	161	71	160/159	136,5	154	100	60	53,5	1 x Pg 9, 2 x Pg 11, 1 x Pg 13,5
RCP 170	41170009	166	161	99	160/159	136,5	154	100	88	53,5	1 x Pg 9, 2 x Pg 11, 1 x Pg 13,5
RCP 200	41200009	213	185	82,5	207/206	183,5	178	119	71,5	53,5	1 x Pg 9, 4 x Pg 11, 1 x Pg 13,5
RCP 250	41250009	257	217	110,5	251/250	227,5	210	151	99,5	63,5	1 x Pg 9, 5 x Pg 11, 1 x Pg 13,5
RCP 310	41310009	296	261	110,5	290/289	266,5	254	190	99,5	63,5	1 x Pg 9, 5 x Pg 11, 1 x Pg 13,5
RCP 350	41350009	296	281	136	290/289	266,5	274	190	125	84,5	1 x Pg 9, 6 x Pg 11, 1 x Pg 13,5
RCP 400	41400009	363,4	318,6	128,5	355/354	326,5	309	225	114,5	71	1 x Pg 11, 6 x Pg 13,5, 1 x Pg 16

Scope of delivery: Base, covering frame, terminal compartment lid, screws

Note: Enclosures in UL 94 V0 and/or without pre-punchings on request.

See following pages for accessories.





RegloCard-Plus with clip-on covering frame

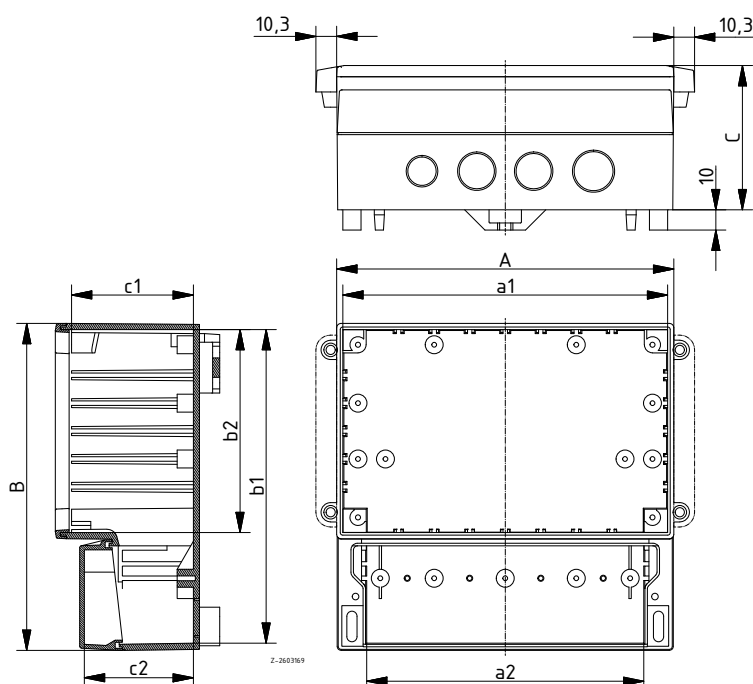
Enclosure with metric pre-punchings in the terminal compartment

Model	Order no.	A	B	C	a1	a2	b1	b2	c1	c2	Note
RCPM 130	41131009	131	186	81	125/124	101,5	179	125	70	53,5	1 x Pg 9, 1 x Pg 11, 1 x Pg 13,5
RCPM 160	41161009	166	161	71	160/159	136,5	154	100	60	53,5	1 x Pg 9, 2 x Pg 11, 1 x Pg 13,5
RCPM 170	41171009	166	161	99	160/159	136,5	154	100	88	53,5	1 x Pg 9, 2 x Pg 11, 1 x Pg 13,5
RCPM 200	41201009	213	185	82,5	207/206	183,5	178	119	71,5	53,5	1 x Pg 9, 4 x Pg 11, 1 x Pg 13,5
RCPM 250	41251009	257	217	110,5	251/250	227,5	210	151	99,5	63,5	1 x Pg 9, 5 x Pg 11, 1 x Pg 13,5
RCPM 310	41311009	296	261	110,5	290/289	266,5	254	190	99,5	63,5	1 x Pg 9, 5 x Pg 11, 1 x Pg 13,5
RCPM 350	41351009	296	281	136	290/289	266,5	274	190	125	84,5	1 x Pg 9, 6 x Pg 11, 1 x Pg 13,5
RCPM 400	41401009	363,4	318,6	128,5	355/354	326,5	309	225	114,5	71	1 x Pg 11, 6 x Pg 13,5, 1 x Pg 16

Scope of delivery: Base, covering frame, terminal compartment lid, screws

Note: Enclosures in UL 94 V0 and/or without pre-punchings on request.

See following pages for accessories.



RegloCard-Plus

with screw-on front lid

for membrane keypads



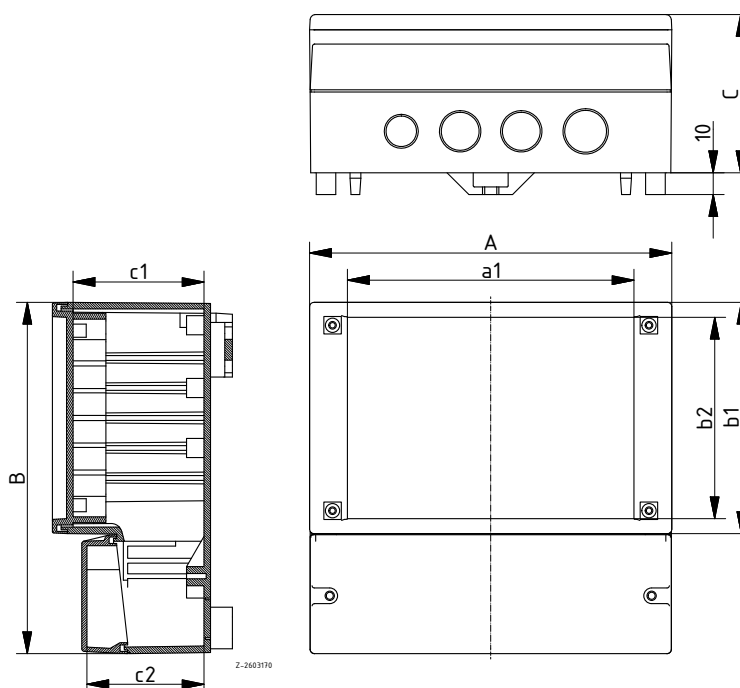
Enclosure with Pg pre-punchings in the terminal compartment

Model	Order no.	A	B	C	a1	b1	b2	c1	c2	Note
RCP 130 F	41130609	131	186	82,5	96,3	131	117,3	70	53,5	1 x Pg 9, 1 x Pg 11, 1 x Pg 13,5
RCP 160 F	41160609	166	161	72,5	131,3	106	92,3	60	53,5	1 x Pg 9, 2 x Pg 11, 1 x Pg 13,5
RCP 170 F	41170609	166	161	100,5	131,3	106	92,3	88	53,5	1 x Pg 9, 2 x Pg 11, 1 x Pg 13,5
RCP 200 F	41200609	213	185	84	179,3	125	111,3	71,5	53,5	1 x Pg 9, 4 x Pg 11, 1 x Pg 13,5
RCP 250 F	41250609	257	217	112	222,3	157	143,3	99,5	63,5	1 x Pg 9, 5 x Pg 11, 1 x Pg 13,5
RCP 310 F	41310609	296	261	112	261,3	196	182,3	99,5	63,5	1 x Pg 9, 5 x Pg 11, 1 x Pg 13,5
RCP 350 F	41350609	296	281	137,5	261,3	196	182,3	125	84,5	1 x Pg 9, 6 x Pg 11, 1 x Pg 13,5
RCP 400 F	41400609	363,4	318,6	130,5	322	233,6	217	114,5	71	1 x Pg 11, 6 x Pg 13,5, 1 x Pg 16

Scope of delivery: Base, recessed front lid, terminal compartment lid, screw covers, screws

Note: Designs RCP 130 F to 250 F: IP 65; RCP 310 F to 400 F: IP 54. Enclosures in UL 94 V0 and/or without pre-punchings on request.

See following pages for accessories.





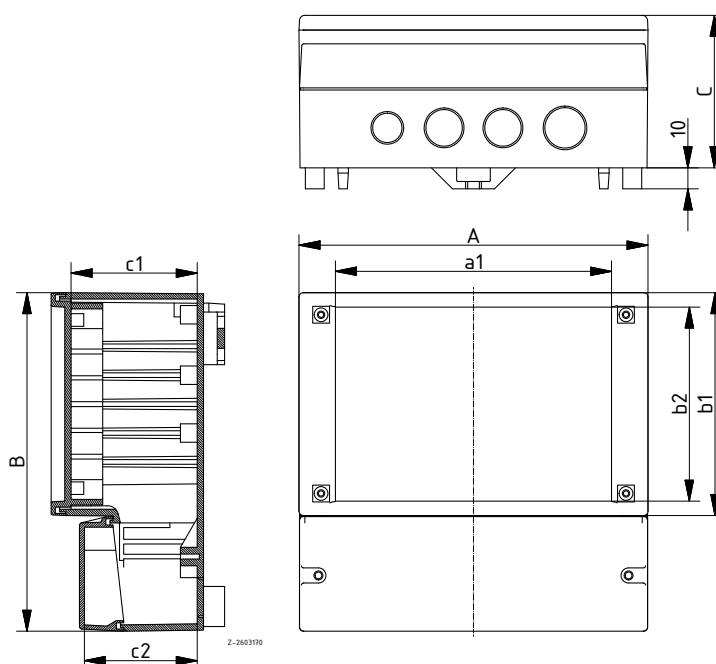
RegloCard-Plus with screw-on front lid for membrane keypads

Enclosure with metric pre-punchings in the terminal compartment

Model	Order no.	A	B	C	a1	b1	b2	c1	c2	Note
RCPM 130 F	41131609	131	186	82,5	96,3	131	117,3	70	53,5	Pre-punchings: 1 x M 12, 1 x M 16, 1 x M 20
RCPM 160 F	41161609	166	161	72,5	131,3	106	92,3	60	53,5	Pre-punchings: 1 x M 12, 2 x M 16, 1 x M 20
RCPM 170 F	41171609	166	161	100,5	131,3	106	92,3	88	53,5	Pre-punchings: 1 x M 12, 2 x M 16, 1 x M 20
RCPM 200 F	41201609	213	185	84	179,3	125	111,3	71,5	53,5	Pre-punchings: 1 x M 12, 4 x M 16, 1 x M 20
RCPM 250 F	41251609	257	217	112	222,3	157	143,3	99,5	63,5	Pre-punchings: 1 x M 12, 5 x M 16, 1 x M 20
RCPM 310 F	41311609	296	261	112	261,3	196	182,3	99,5	63,5	Pre-punchings: 1 x M 12, 5 x M 16, 1 x M 20
RCPM 350 F	41351609	296	281	137,5	261,3	196	182,3	125	84,5	Pre-punchings: 1 x M 12, 6 x M 16, 1 x M 20
RCPM 400 F	41401609	363,4	318,6	130,5	322	233,6	217	114,5	71	Pre-punchings: 1 x M 16, 6 x M 20, 1 x M 25

Scope of delivery: Base, recessed front lid, terminal compartment lid, screw covers, screws

Note: Designs RCPM 130 F to 250 F: IP 65; RCPM 310 F to 400 F: IP 54. Enclosures in UL 94 V0 and/or without pre-punchings on request. See following pages for accessories.



RegoCard-Plus accessories

Cylinder catch / hand knob for retro-fitting in the snap-lock mechanism

Model	Order no.	Note
SHLO-302	21008310	Cylinder catch
RCP/RCPM – HK	41002501	Hand knob

Scope of delivery: 1 lock and 2 keys or 1 hand knob

Note: The cylinder catch or hand knob can be retrofitted into the snap-lock opening. If a blind plug or catch has been fitted, it can be released and pushed out from the rear.



Wall brackets, screw-on at rear

Model	Order no.
RCP/RCPM – WL	41000300

Scope of delivery: 2 pieces

Note: For 4-point wall fixing without opening the enclosure. Fitting to rear of enclosure from the outside. Suitable for all enclosures in this series.



Mounting panels, laminated paper

Model	Order no.	Note
RCP/RCPM 130 M	41000350	For RCP(M) 130(0)
RCP/RCPM 160/170 M	41000400	For RCP(M) 160(0) / 170(0)
RCP/RCPM 200 M	41000500	For RCP(M) 200(0)
RCP/RCPM 250 M	41000600	For RCP(M) 250(0)
RCP/RCPM 310 M/350 M	41000700	For RCP(M) 310(0) / 350(0)
RCP/RCPM 400 M	41000800	For RCP(M) 400(0)

Scope of delivery: 1 mounting panel



Front panels, natural-coloured anodised aluminium

Model	Order no.	Note
FAE 130	27000100	For RCP(M) 130(0)
FAE 160/170	27000300	For RCP(M) 160(0) / 170(0)
FAE 200	27000500	For RCP(M) 200(0)
FAE 250	27000700	For RCP(M) 250(0)
FAE 310/350	27000900	For RCP(M) 310(0) / 350(0)
FAE 400	27120000	For RCP(M) 400(0)

Scope of delivery: 1 front panel

Note: Front panels with a max. thickness of 3 mm can be fitted to the enclosures in this series. Please order fixing screws separately (order no. 59006233). Additional sizes on request.



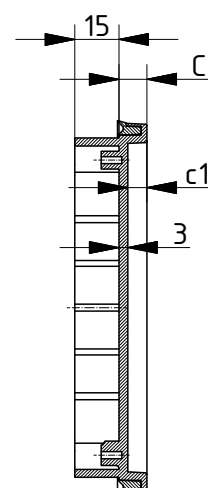
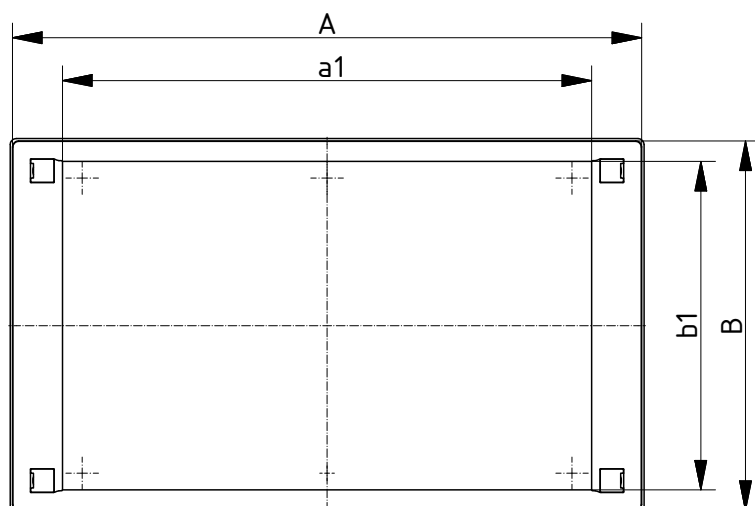
Combifront



Installation fronts with continuous seal up to IP 54

Model	Order no.	A	B	C	a1	b1	c1
CF 130	69130009	131	131	9,5	96,3	117,3	6,5
CF 160	69160009	166	106	9,5	131,3	92,3	6,5
CF 200	69200009	213	125	9,5	179,3	111,3	6,5
CF 250	69250009	257	157	9,5	222,3	143,3	6,5
CF 310	69310009	296	196	9,5	261,3	182,3	6,5
CF 400	69400009	363,6	233,6	11,5	322	217	8,5

Scope of delivery: Front lid, double lip seal, screw covers



Z-2603300

Combifront accessories

Bases

Model	Order no.	Note
CB 1304	69130400*	For CF 130 and RCP(M) 130 F, 35 mm deep
CB 1307	69130700*	For CF 130, 65 mm deep
CB 1310	69131000*	For CF 130, 100 mm deep
CB 1604	69160400*	For CF 160 and RCP(M) 160/170 F, 35 mm deep
CB 1607	69160700*	For CF 160 and RCP(M) 170 F, 65 mm deep
CB 1610	69161000*	For CF 160, 100 mm deep
CB 2004	69200400*	For CF 200 and RCP(M) 200 F, 35 mm deep
CB 2007	69200700*	For CF 200, 65 mm deep
CB 2010	69201000*	For CF 200, 100 mm deep
CB 2504	69250400*	For CF 250 and RCP(M) 250 F, 35 mm deep
CB 2507	69250700*	For CF 250 and RCP(M) 250 F, 65 mm deep
CB 2510	69251000*	For CF 250, 100 mm deep
CB 3104	69310400*	For CF 310 and RCP(M) 310/350 F, 35 mm deep
CB 3107	69310700*	For CF 310 and RCP(M) 310/350 F, 65 mm deep
CB 3110	69311000*	For CF 310 and RCP(M) 350 F, 100 mm deep
CB 4004	69400400*	For CF 400 und RCP(M) 400 F, 35 mm deep
CB 4007	69400700*	For CF 400 and RCP(M) 400 F, 65 mm deep
CB 4010	69401000*	For CF 400 and RCP(M) 400 F, 100 mm deep

Scope of delivery: Base, screws

Note: * = Available on request.

The CB bases can also be used as EMC protection with the RCP/RCPM...F enclosures.



Flush-mounted frame

Model	Order no.	Note
CR 130	69013050*	For CF 130
CR 160	69016050*	For CF 160
CR 200	69020050*	For CF 200
CR 250	69025050*	For CF 250
CR 310	69031050*	For CF 310
CR 400	69040050*	For CF 400

Scope of delivery: Flush-mounted frame, screws

Note: * = Available on request



InterCard



Enclosure with crystal-clear lid, hinged and with snap lock, IP 65

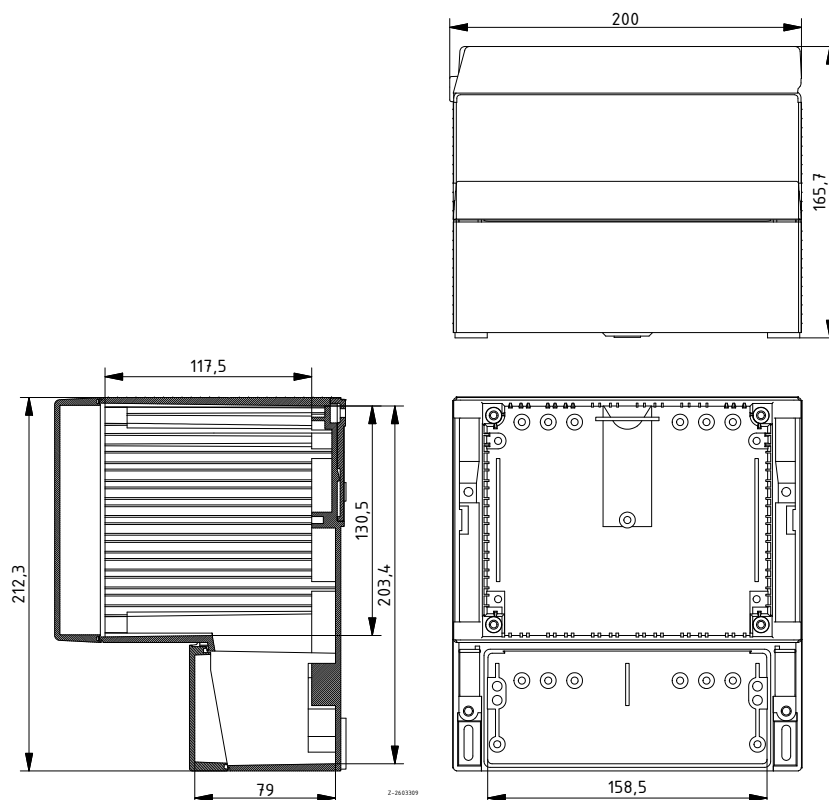
Model

IC 5000

Order no.

07500000

Scope of delivery: Base, crystal-clear lid, hinged, mounted with snap lock, terminal compartment lid, threaded inserts for mounting panels, screws



InterCard accessories

Cylinder lock

Model	Order no.
SHLO-302	21008310

Scope of delivery: 1 lock, 2 keys



Mounting plate

Model	Order no.
MP 5000	27450000

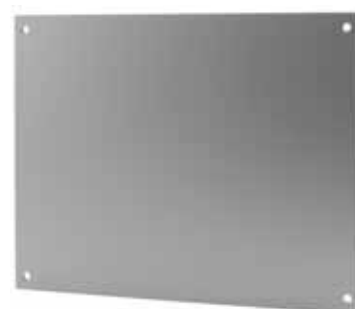
Scope of delivery: 1 mounting panel, fixing material



Front panel, natural-coloured anodised aluminium

Model	Order no.
FA 5000	27350000

Scope of delivery: 1 front panel, fixing material





Uninorm

Control panel mounting enclosure acc. to DIN IEC 61554

- 36 sizes
- Fixing with screw or spring clamps
- Connecting piece for standard retaining clasps in accordance with DIN 43835 form B
- Comprehensive range of accessories



Colour	Black, similar to RAL 9005; special colours on request
Protection class	IP 40 up to IP 65/DIN EN 60529, depending on the design
Enclosure material	Modified PPE+PS (SE1 GFN1); for details see Technical Information

Different fixing systems allow optimal mounting in the switch cabinet or control panel. The accessory parts can be used to define different methods of access. With the flexible transparent PVC hoods, push-buttons and switches can be operated through the hood and – depending on the method of mounting – are protected up to IP 65.



Uninorm control panel

mounting enclosure acc. to DIN IEC 61554

Control panel mounting enclosure



Model	Order no.	A	B	C	a1	b1	c1
NGS 4806	17480601	48	48	63	38,8	38,8	56,5
NGS 4808	17480801*	48	48	85	38,8	38,8	78,5
NGS 4810	17481001	48	48	109,5	38,8	38,8	103
NGS 4811	17481101*	48	48	119	38,8	38,8	112,5
NGS 4813	17481301*	48	48	141	38,8	38,8	134,5
NGS 7406	17740601	144	72	64	131,5	61,5	56
NGS 7408	17740801	144	72	86	131,5	61,5	78,5
NGS 7410	17741001	144	72	110,5	131,5	61,5	103
NGS 7411	17741101	144	72	120	131,5	61,5	112,5
NGS 7413	17741301	144	72	142	131,5	61,5	134,5
NGS 7416	17741601	144	72	166,5	131,5	61,5	159
NGS 7706	17770601	72	72	63	61,5	61,5	56,5
NGS 7708	17770801*	72	72	85	61,5	61,5	78,5
NGS 7710	17771001	72	72	109,5	61,5	61,5	103
NGS 7711	17771101*	72	72	119	61,5	61,5	112,5
NGS 7713	17771301*	72	72	141	61,5	61,5	134,5
NGS 7716	17771601*	72	72	165,5	61,5	61,5	159
NGS 9406	17940601	96	48	63	86,2	38,8	56,5
NGS 9408	17940801	96	48	85	86,2	38,8	78,5
NGS 9410	17941001	96	48	109,5	86,2	38,8	103
NGS 9411	17941101	96	48	119	86,2	38,8	112,5
NGS 9413	17941301	96	48	141	86,2	38,8	134,5
NGS 9416	17941601	96	48	165,5	86,2	38,8	159
NGS 9606	17960601	96	96	63	86,2	86,2	56,5
NGS 9608	17960801	96	96	85	86,2	86,2	78,5
NGS 9610	17961001	96	96	109,5	86,2	86,2	103
NGS 9611	17961101	96	96	119	86,2	86,2	112,5
NGS 9613	17961301	96	96	141	86,2	86,2	134,5
NGS 9616	17961601	96	96	165,5	86,2	86,2	159
NGS 9806	17980601	144	144	64	131,5	131,5	56,5
NGS 9808	17980801	144	144	85	131,5	131,5	78,5
NGS 9810	17981001	144	144	110,5	131,5	131,5	103
NGS 9811	17981101	144	144	120	131,5	131,5	112,5
NGS 9813	17981301	144	144	142	131,5	131,5	134,5
NGS 9816	17981601	144	144	166,5	131,5	131,5	159
NGS 9806 GR	17980605*	144	144	165,5	131	131	66,2

Scope of delivery:

NGS...: Enclosure, standard front frame, rear lid, screws

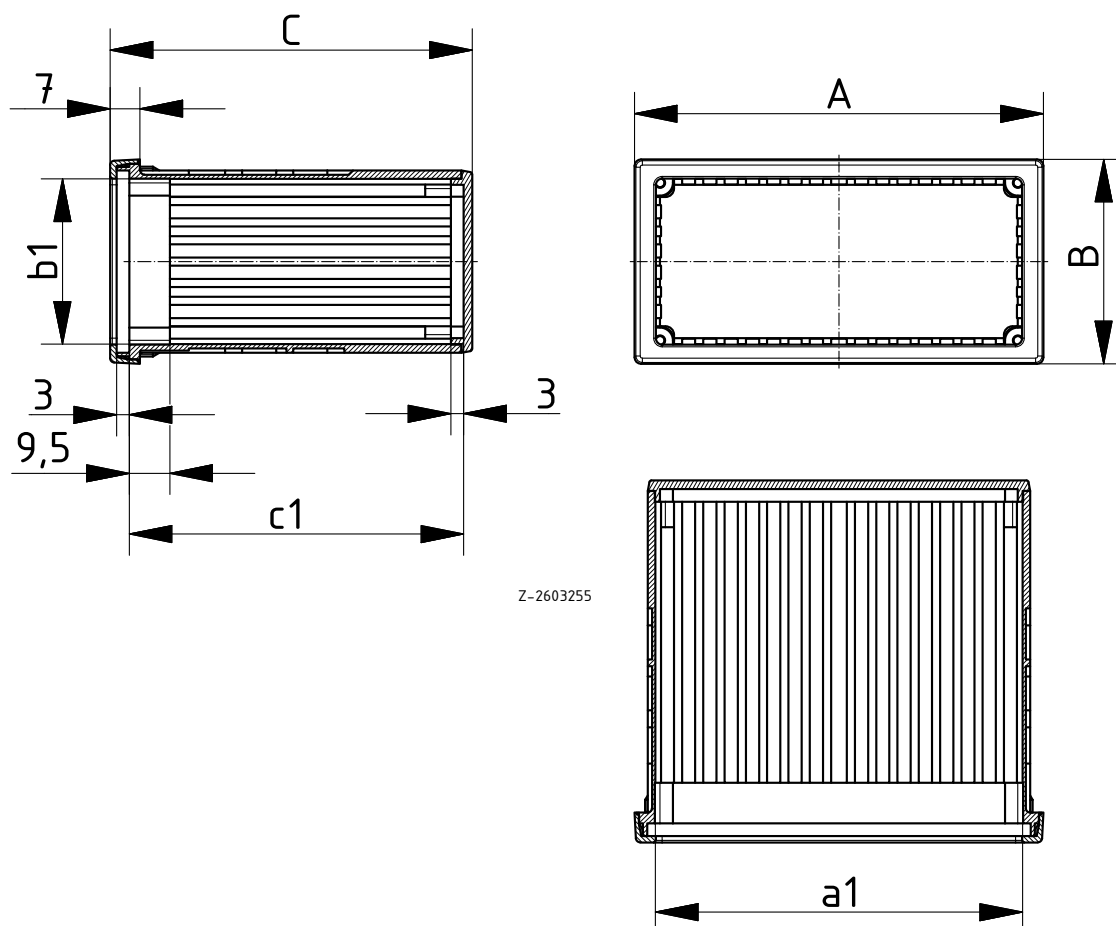
NGS 9806-GR: Enclosure, standard front frame, 2 clamps

Note: * = Available on request. See following pages for accessories.

NGS-9806-GR design with stepped rear panel.

Uninorm control panel

mounting enclosure acc. to DIN IEC 61554



Uniform accessories



Spring clamp for fixing enclosure

Model	Order no.
NGS-NF	37005000

Scope of delivery: 2 pieces

Note: The spring clamp is snapped onto the external wall of the enclosure and then, with the enclosure, clamped into the control panel cut-out.



Screw clamp for screw-fitting enclosure

Model	Order no.
NGS-NK	37003000

Scope of delivery: 2 pieces

Note: The screw clamp is placed on the enclosure from the rear of the control panel. After this, the enclosure is pressed firmly onto the wall of the control panel by means of the integrated screw.



Connecting piece for insertion of standard retaining clasps acc. to DIN 43835

Model	Order no.
NGS-ZE	37004000

Scope of delivery: 2 pieces



Standard retaining clasp in accordance with DIN 43835 form B (only for use with NGS-ZE)

Model	Order no.
NGS-NH	37001000

Scope of delivery: 2 pieces



Front panels, natural-coloured anodised aluminium

Model	Order no.	Note
NGS 48 FAE	37000050	For NGS 48..
NGS 74 FAE	37000200	For NGS 74..
NGS 77 FAE	37000100	For NGS 77..
NGS 94 FAE	37000300	For NGS 94..
NGS 96 FAE	37000400	For NGS 96..
NGS 98 FAE	37000500	For NGS 98..
NGS 98 FAE	37000510*	For NGS 9806-GR

Scope of delivery: 1 front panel

Note: The 1.5 mm thick aluminium front panel can be sealed towards the enclosure by means of the NGS...DI seal. Take panel bending into account.

* = Available on request

Uninorm accessories

Plastic front panel, red translucent

Model	Order no.	Note
NGS 48 FKT	37000610	For NGS 48..
NGS 74 FKT	37000700	For NGS 74..
NGS 77 FKT	37000600	For NGS 77..
NGS 94 FKT	37000800	For NGS 94..
NGS 96 FKT	37000900	For NGS 96..
NGS 98 FKT	37000950	For NGS 98.., for NGS 9806-GR

Scope of delivery: 1 front panel

Note: The 3 mm thick plexiglass screen is especially suitable for use with LEDs. Sealing with NGS...DI is not possible.

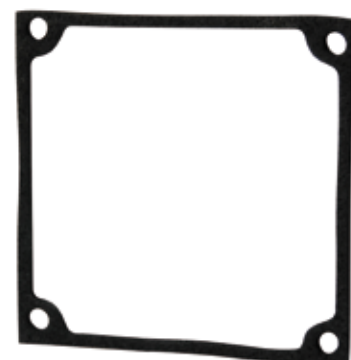


Front panel seal (non-definable protection class)

Model	Order no.	Note
NGS 48 DI	37048010	For NGS 48..
NGS 74 DI	37074010	For NGS 74..
NGS 77 DI	37077010	For NGS 77..
NGS 94 DI	37094010	For NGS 94..
NGS 96 DI	37096010	For NGS 96..
NGS 98 DI	37098010	For NGS 98.., for NGS 9806-GR

Scope of delivery: 5 pieces

Note: The 1.5 mm thick neoprene foam rubber seal can be used to seal the NGS...FAE front panels towards the interior of the enclosure. Take panel bending into account.



External control panel seal (non-definable protection class)

Model	Order no.	Note
NGS 48 DA	37048000	For NGS 48..
NGS 74 DA	37074000	For NGS 74..
NGS 77 DA	37077000	For NGS 77..
NGS 94 DA	37094000	For NGS 94..
NGS 96 DA	37096000	For NGS 96..
NGS 98 DA	37098000	For NGS 98..

Scope of delivery: 5 pieces

Note: The 1.5 mm thick neoprene foam rubber seal can be used to seal the enclosures towards the wall of the control panel. Take possible panel bending into account. If necessary, 4 fixing elements can be used to achieve a higher level of sealing.



Uninorm accessories

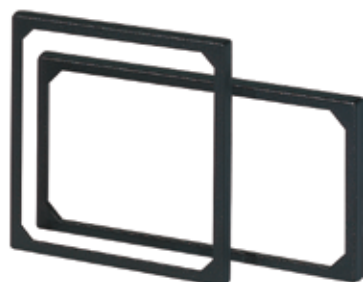


Front lid with continuous membrane keypad, snaps firmly on

Model	Order no.	Note
NGS 48 F	37948500*	For NGS 48..
NGS 74 F	37974500	For NGS 74..
NGS 77 F	37977500	For NGS 77..
NGS 94 F	37994500	For NGS 94..
NGS 96 F	37996500	For NGS 96..
NGS 98 F	37998500	For NGS 98.., for NGS 9806-GR

Scope of delivery: 1 membrane front

Note: * = Available on request



Front frame with screw covers, snaps firmly on

Model	Order no.	Note
NGS 48 SA	37948600	For NGS 48..
NGS 74 SA	37974600	For NGS 74..
NGS 77 SA	37977600	For NGS 77..
NGS 94 SA	37994600	For NGS 94..
NGS 96 SA	37996600	For NGS 96..
NGS 98 SA	37998600	For NGS 98.., for NGS 9806-GR

Scope of delivery: 1 front frame



Crystal-clear hood, snap-on

Model	Order no.	Note
NGS 48 AH	37948700*	For NGS 48..
NGS 74 AH	37974700*	For NGS 74..
NGS 77 AH	37977700*	For NGS 77..
NGS 94 AH	37994700*	For NGS 94..
NGS 96 AH	37996700*	For NGS 96..
NGS 98 AH	37998700*	For NGS 98.., for NGS 9806-GR

Scope of delivery: 1 hood

Note: Can be used only in connection with membrane front NGS...F and front frame NGS...SA.

* = Available on request

Uninorm accessories

Clear hood cover, flexible, up to IP 65 possible

Model	Order no.	Note
NGS 48 GHN	37004800	For NGS 48..
NGS 74 GHN	37007400	For NGS 74..
NGS 77 GHN	37007700	For NGS 77..
NGS 94 GHN	37009400	For NGS 94..
NGS 96 GHN	37009600	For NGS 96..
NGS 98 GHN	37009800	For NGS 98.., for NGS 9806-GR

Scope of delivery: 1 flexible transparent PVC hood

Note: Buttons or rocker switches can be operated through the hood. Protection class up to IP 65, depending on assembly.



Crystal-clear front door, snap-on, with knob

Model	Order no.	Note
NGS 74 TK	17740000*	For NGS 74..
NGS 96 TK	17960000	For NGS 96..
NGS 98 TK	17980000	For NGS 98.., for NGS 9806-GR

Scope of delivery: 1 front door

Note: * = Available on request



Cylinder lock for front door NGS...TK

Model	Order no.
SHLO-302	21008310

Scope of delivery: 1 lock, 2 keys





Euromas II

Attractive enclosure
for electronics, IP 65,
easy-to-assemble screwing
technology

- 29 sizes
- 2 materials: PC or ABS
- 2 lids: smooth or recessed with membrane keypad area
- Plug-in slots for PCBs
- Separate bosses for clamping rectangular PCBs
- Terminals and mounting on request
- Excellent recyclability because of pure-grade plastics without injection-moulded metal parts



Colour	Light grey, similar to RAL 7035; special colours on request
Protection class	IP 65/DIN EN 60529, higher ingress protection on request
Enclosure material	ABS, PC (UV stabilised); seal made of CR; UL 94 V0 types on request; for details see Technical Information





F version: with recessed area in lid for flush-fitting of membrane keypads.



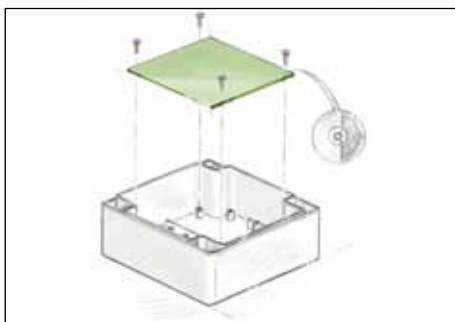
LP version: with plug-in slots for circuit boards in lower section.



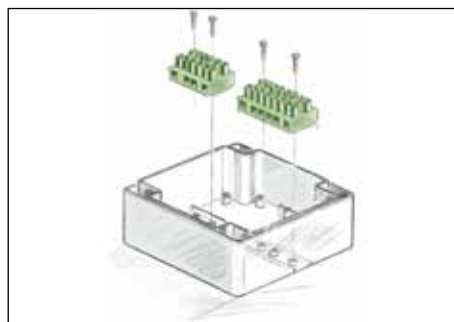
We recommend fitting mounting panels and DIN rails with self-tapping screws (General accessories).



Material shrinkage may result in ABS enclosures being approx. 0.1 – 0.25 % larger.



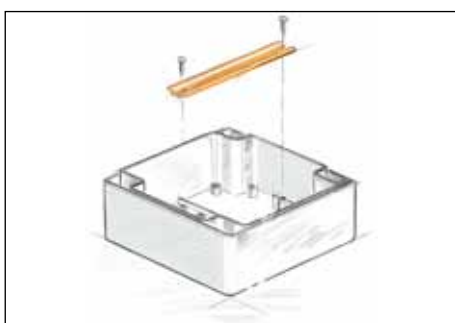
Off-set bosses for clamping rectangular circuit boards or mounting panels (not included in scope of delivery).



Bosses for terminal blocks (type KL 16, Wieleland).



Standard mounting bosses, in some cases also fitted in the lid.



Bosses with side support webs for non-tilt DIN-rail assembly.

Maximum insertion with Phoenix modular terminals

	MBK 2.5	MBK 3	MBK 5	UK 3 N	UK 5 N	UK 10 N
DIN rail TS 15	x	x	x			
DIN rail TS 32				x	x	x
DIN rail TS 35				x	x	x
Bridgeable		x	x	x	x	x
End-angle piece	2	2	2	2	2	2
End plate	-	1	1	1	1	1
Conductor cross-section (mm ²) fine-strand	1,5	2,5	4	2,5	4	10
Conductor cross-section (mm ²) single-wire	2,5	4	4	4	6	16
Nominal voltage (V)	500	500	500	750	750	800
Current-carrying capacity (A)	26	32	34	34	34	76
Terminal width (mm)	5.2	5.2	6.2	5.2	6.2	10.2

Model	Number per DIN rail					
EM/ET 205 (F)	1 x KL16/4 PA-DS terminal block					
EM/ET 206 (F)	1 x KL16/8 PA-DS terminal block					
EM/ET 207 LP	7	7	6			
EM/ET 208 (F)	7					
EM/ET 210 (F)	7	7	5			
EM/ET 212 (F)	11	11	9			
EM/ET 214 LP	30	30	24			
EM/ET 215 (F)	14	14	11			
EM/ET 217 (F)	15	15	12			
EM/ET 218 LP	20	20	16			
EM/ET 220 (F)	22	22	18			
EM/ET 221 (F) LP	30	30	24	29	23	15
EM/ET 223 (F)	30	30	24	29	23	15
EM/ET 224 LP	38	38	30			
EM/ET 225 (F)	7	7	5	6	5	3
EM/ET 227 (F)	15	15	12	14	11	7
EM/ET 231 (F)	22	22	18	21	18	11
EM/ET 236 LP	38	38	30	36	30	20
EM/ET 237 (F)	30	30	24	29	23	15
EM/ET 238 (F)	22	22	18	21	18	11
EM/ET 239 (F)	38	38	30			
EM/ET 240 (F)	38	38	30	36	30	20
EM/ET 241 (F)	38	38	30	36	30	20
EM/ET 242 (F)	38	38	30	36	30	20
EM/ET 247 LP	48	48	40	46	40	24



Welcome to BOPLA City!

Maximum insertion with Weidmüller modular terminals

	AKZ 1.5	AKZ 2.5	AKZ 4	SAK 2.5	SAK 4
DIN rail TS 15	x	x	x		
DIN rail TS 32				x	x
DIN rail TS 32					
Bridgeable	x	x	x	x	x
End-angle piece	2	2	2	2	2
End plate	1	1	1	1	1
Conductor cross-section (mm²) fine-strand	1.5	2.5	4	2.5	4
Conductor cross-section (mm²) single-wire	2,5	4	6	4	10
Nominal voltage (V)	400	250	500	800	800
Current-carrying capacity (A)	17.5	24	32	24	32
Terminal width (mm)	5	5	6	6	6.5

Model	Number per DIN rail				
EM/ET 205 (F)	1 x KL16/4 PA-DS terminal block				
EM/ET 206 (F)	1 x KL16/8 PA-DS terminal block				
EM/ET 207 LP	7	7	6		
EM/ET 208 (F)	7				
EM/ET 210 (F)	7	7	6		
EM/ET 212 (F)	11	11	9		
EM/ET 214 LP	30	30	24		
EM/ET 215 (F)	14	14	11		
EM/ET 217 (F)	15	15	12		
EM/ET 218 LP	20	20	16		
EM/ET 220 (F)	22	22	18		
EM/ET 221 (F) LP	30	30	25	24	23
EM/ET 223 (F)	30	30	25	24	23
EM/ET 224 LP	38	38	30		
EM/ET 225 (F)	7	7	6	6	4
EM/ET 227 (F)	15	15	12	12	11
EM/ET 231 (F)	22	22	18	18	17
EM/ET 236 LP	38	38	30	30	29
EM/ET 237 (F)	30	30	25	23	22
EM/ET 238 (F)	22	22	18	18	17
EM/ET 239 (F)	38	38	31		
EM/ET 240 (F)	38	38	31	30	30
EM/ET 241 (F)	38	38	31	30	30
EM/ET 242 (F)	38	38	31	30	30
EM/ET 247 LP	49	49	41	40	38

Euromas II polycarbonate / ABS



Euromas II enclosures, polycarbonate

Model	Order no.	A	B	C	a1	a2	b1	b2	b3	c1	c2
EM 205	62205000	52	50	37	46,5	30	44,5	28		10	33
EM 205 F	62205200	52	50	37	46,5	30	44,5	28		10	33
EM 206	62206000	65	50	37	59,5	43	44,5	28		10	32
EM 206 F	62206200	65	50	37	59,5	43	44,5	28		10	32
EM 207 LP	62207300	82	60	57	75,3	56,5	53,3	25,5		15	51
EM 207 F-LP	62207400	82	60	57	75,3	56,5	53,3	25,5		15	51
EM 208	62208000	98	64	38	89,5	73,5	55,5	32,2		10	31,5
EM 208 F	62208200	98	64	38	89,5	73,5	55,5	32,2		10	31,5
EM 210	62210000	82	80	57	75,3	56,5	73,3	36,5		15	51
EM 210 F	62210200	82	80	57	75,3	56,5	73,3	36,5		15	51
EM 212	62212000	100	100	57	93,3	74,5	93,3	56,5		15	51
EM 212 F	62212200	100	100	57	93,3	74,5	93,3	56,5		15	51
EM 213	62213000*	122	120	37	115,6	96,8	113,6	76,8		15	31
EM 213 F	62213200*	122	120	37	115,6	96,8	113,6	76,8		15	31
EM 214 LP	62214300	200	120	57	193,2	174,4	113,2	74,3		15	51
EM 214 F-LP	62214400	200	120	57	193,2	174,4	113,2	74,3		15	51
EM 215	62215000	120	80	57	113,3	94,5	73,3	36,5		15	51
EM 215 F	62215200	120	80	57	113,3	94,5	73,3	36,5		15	51
EM 217	62217000	122	120	57	115,3	96,5	113,3	76,5		15	51
EM 217 F	62217200	122	120	57	115,3	96,5	113,3	76,5		15	51
EM 218 LP	62218300	150	150	57	143,3	124,5	143,3	106,5		15	51
EM 218 F-LP	62218400	150	150	57	143,3	124,5	143,3	106,5		15	51
EM 220	62220000	160	80	57	153,3	134,5	73,3	36,5		15	51
EM 220 F	62220200	160	80	57	153,3	134,5	73,3	36,5		15	51
EM 221	62221000	200	120	77	192,9	174,1	112,9	74		15	71
EM 221 F	62221200	200	120	77	192,9	174,1	112,9	74		15	71
EM 223	62223000	200	150	77	192,9	174,1	142,9	105,1		15	71
EM 223 F	62223200	200	150	77	192,9	174,1	142,9	105,1		15	71
EM 224 LP	62224300	240	80	60	233,3	214,5	142,9	105,1		20	54
EM 224 F-LP	62224400	240	80	60	233,3	214,5	73,3	36,5		20	54
EM 225	62225000	82	80	87	75	56,2	73	36,2		15	81
EM 225 F	62225200	82	80	87	75	56,2	73	36,2		15	81
EM 227	62227000	122	120	87	115	96,2	113	76,2		15	81
EM 227 F	62227200	122	120	87	115	96,2	113	76,2		15	81
EM 229	62229000*	160	80	37	153,6	134,8	73,6	36,8		15	31
EM 229 F	62229200*	160	80	37	153,6	134,8	73,6	36,8		15	31
EM 231	62231000	160	80	87	153	134,2	73	36,2		15	81
EM 231 F	62231200	160	80	87	153	134,2	73	36,2		15	81
EM 232	62232000*	200	150	37	193,6	174,8	143,6	105,8		15	31
EM 232 F	62232200*	200	150	37	193,6	174,8	143,6	105,8		15	31
EM 233	63233000*	250	160	37	243,6	224,8	153,6	115,8		15	31
EM 233 F	62233200*	250	160	37	243,6	224,8	153,6	115,8		15	31
EM 236 LP	62236300	240	80	80	233,3	214,5	73,3	36,5		40	74
EM 236 F-LP	62236400	240	80	80	233,3	214,5	73,3	36,5		40	74



Euromas II polycarbonate / ABS

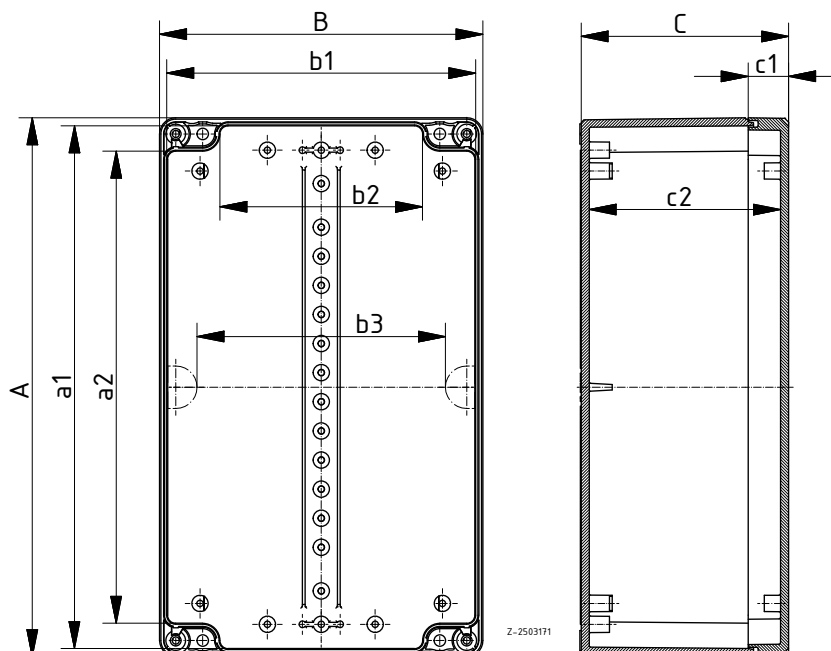
Euromas II enclosures, polycarbonate

Model	Order no.	A	B	C	a1	a2	b1	b2	b3	c1	c2
EM 237	62237000	200	120	92	192,9	174,1	112,9	74		30	86
EM 237 F	62237200	200	120	92	192,9	174,1	112,9	74		30	86
EM 238	62238000	160	120	92	152,9	134,1	112,9	74		30	86
EM 238 F	62238200	160	120	92	152,9	134,1	112,9	74		30	86
EM 239	62239000	250	160	57	243,4	224,6	153,4	115,6	134,5	15	51
EM 239 F	62239200	250	160	57	243,4	224,6	153,4	115,6	134,5	15	51
EM 240	62240000	250	160	92	242,9	224,1	152,9	115,1	134,1	15	86
EM 240 F	62240200	250	160	92	242,9	224,1	152,9	115,1	134,1	15	86
EM 241	62241000	250	160	122	242,9	224,1	152,9	115,1	134,1	45	116
EM 241 F	62241200	250	160	122	242,9	224,1	152,9	115,1	134,1	45	116
EM 242	62242000	240	120	102	232,9	214,1	112,9	76,1		25	96
EM 242 F	62242200	240	120	102	232,9	214,1	112,9	76,1		25	96
EM 247 LP	62247300	300	160	120	292,7	272,9	152,7	112,9	134,4	30	114
EM 247 F-LP	62247400	300	160	120	292,7	272,9	152,7	112,9	134,4	30	114

Scope of delivery: Lid and base, self-tapping coarse-pitched thread lid screws made of V2A

Note: * = Available on request.

Accessories: See following pages.



Euromas II polycarbonate / ABS



Euromas II enclosures, ABS

Model	Order no.	A	B	C	a1	a2	b1	b2	b3	c1	c2
ET 205	63205000	52	50	37	46,5	30	44,5	28		10	33
ET 205 F	63205200	52	50	37	46,5	30	44,5	28		10	33
ET 206	63206000	65	50	37	59,5	43	44,5	28		10	32
ET 206 F	63206200	65	50	37	59,5	43	44,5	28		10	32
ET 207 LP	63207300	82	60	57	75,3	56,5	53,3	25,5		15	51
ET 207 F-LP	63207400	82	60	57	75,3	56,5	53,3	25,5		15	51
ET 208	63208000	98	64	38	89,5	73,5	55,5	32,2		10	31,5
ET 208 F	63208200	98	64	38	89,5	73,5	55,5	32,2		10	31,5
ET 210	63210000	82	80	57	75,3	56,5	73,3	36,5		15	51
ET 210 F	63210200	82	80	57	75,3	56,5	73,3	36,5		15	51
ET 212	63212000	100	100	57	93,3	74,5	93,3	56,5		15	51
ET 212 F	63212200	100	100	57	93,3	74,5	93,3	56,5		15	51
ET 213	63213000*	122	120	37	115,6	96,8	113,6	76,8		15	31
ET 213 F	63213200*	122	120	37	115,6	96,8	113,6	76,8		15	31
ET 214 LP	63214300	200	120	57	193,2	174,4	113,2	74,3		15	51
ET 214 F-LP	63214400	200	120	57	193,2	174,4	113,2	74,3		15	51
ET 215	63215000	120	80	57	113,3	94,5	73,3	36,5		15	51
ET 215 F	63215200	120	80	57	113,3	94,5	73,3	36,5		15	51
ET 217	63217000	122	120	57	115,3	96,5	113,3	76,5		15	51
ET 217 F	63217200	122	120	57	115,3	96,5	113,3	76,5		15	51
ET 218 LP	63218300	150	150	57	143,3	124,5	143,3	106,5		15	51
ET 218 F-LP	63218400	150	150	57	143,3	124,5	143,3	106,5		15	51
ET 220	63220000	160	80	57	153,3	134,5	73,3	36,5		15	51
ET 220 F	63220200	160	80	57	153,3	134,5	73,3	36,5		15	51
ET 221	63221000	200	120	77	192,9	174,1	112,9	74		15	71
ET 221 F	63221200	200	120	77	192,9	174,1	112,9	74		15	71
ET 223	63223000	200	150	77	192,9	174,1	142,9	105,1		15	71
ET 223 F	63223200	200	150	77	192,9	174,1	142,9	105,1		15	71
ET 224 LP	63224300	240	80	60	233,3	214,5	73,3	36,5		20	54
ET 224 F-LP	63224400	240	80	60	233,3	214,5	73,3	36,5		20	54
ET 225	63225000	82	80	87	75	56,2	73	36,2		15	81
ET 225 F	63225200	82	80	87	75	56,2	73	36,2		15	81
ET 227	63227000	122	120	87	115	96,2	113	76,2		15	81
ET 227 F	63227200	122	120	87	115	96,2	113	76,2		15	81
ET 229	63229000*	160	80	37	153,6	134,8	73,6	36,8		15	31
ET 229 F	63229200*	160	80	37	153,6	134,8	73,6	36,8		15	31
ET 231	63231000	160	80	87	153	134,2	73	36,2		15	81
ET 231 F	63231200	160	80	87	153	134,2	73	36,2		15	81
ET 232	63232000*	200	150	37	193,6	174,8	143,6	105,8		15	31
ET 232 F	63232200*	200	150	37	193,6	174,8	143,6	105,8		15	31
ET 233	63233000*	250	160	37	243,6	224,8	153,6	115,8	134,4	15	31
ET 233 F	63233200*	250	160	37	243,6	224,8	153,6	115,8	134,4	15	31
ET 236 LP	63236300	240	80	80	233,3	214,5	73,3	36,5		40	74



Euromas II polycarbonate / ABS

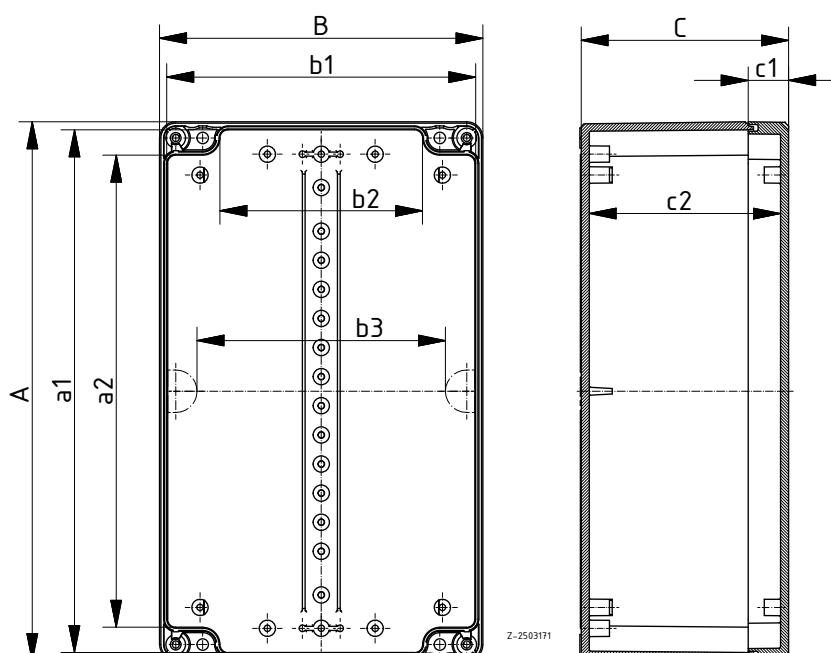
Euromas II enclosures, ABS

Model	Order no.	A	B	C	a1	a2	b1	b2	b3	c1	c2
ET 236 F-LP	63236400	240	80	80	233,3	214,5	73,3	36,5		40	74
ET 237	63237000	200	120	92	192,9	174,1	112,9	74		30	86
ET 237 F	63237200	200	120	92	192,9	174,1	112,9	74		30	86
ET 238	63238000	160	120	92	152,9	134,1	112,9	74		30	86
ET 238 F	63238200	160	120	92	152,9	134,1	112,9	74		30	86
ET 239	63239000	250	160	57	243,4	224,6	153,4	115,6	134,5	15	51
ET 239 F	63239200	250	160	57	243,4	224,6	153,4	115,6	134,5	15	51
ET 240	63240000	250	160	92	242,9	224,1	152,9	115,1	134,1	15	86
ET 240 F	63240200	250	160	92	242,9	224,1	152,9	115,1	134,1	15	86
ET 241	63241000	250	160	122	242,9	224,1	152,9	115,1	134,1	45	116
ET 241 F	63241200	250	160	122	242,9	224,1	152,9	115,1	134,1	45	116
ET 242	63242000	240	120	102	232,9	214,1	112,9	76,1		25	96
ET 242 F	63242200	240	120	102	232,9	214,1	112,9	76,1		25	96
ET 247 LP	63247300	300	160	120	292,7	272,9	152,7	112,9	134,4	30	114
ET 247 F-LP	63247400	300	160	120	292,7	272,9	152,7	112,9	134,4	30	114

Scope of delivery: Lid and base, self-tapping coarse-pitched thread lid screws made of V2A

Note: * = Available on request.

Accessories: See following pages.



Euromas II accessories

Rubber feet, self-adhesive

Model	Order no.	Colour	Note:
GF	22009000	Black	Polyurethane, 65-75 Shore
Scope of delivery: 4 pieces			



Wall brackets on rear, screw-on, polycarbonate

Model	Order no.
EM-WL	22010000
Scope of delivery: 4 pieces	



Screw covers, polycarbonate

Model	Order no.
EM-SA	22080000
Scope of delivery: 6 pieces	



Mounting panels, laminated paper

Model	Order no.	Note:
M	22000100	For EM/ET 205, M/T 205
M	22000200	For EM/ET 206, M/T 206
M	22207001	For EM/ET 207*
M	22000300	For EM/ET 210, EM/ET 225, M/T 210, M/T 225
M	22212000	For EM/ET 212*
M	22214001	For EM/ET 214*
M	22000400	For EM/ET 215, M/T 215-216, M/T 226, M/T 230
M	22000500	For EM/ET 217, EM/ET 227, M/T 217, M/T 227-228
M	22218001	For EM/ET 218*
M	22000600	For EM/ET 220, EM/ET 231, M/T 219-220, M/T 231-235
M	22000700	For EM/ET 221, EM/ET 237, M/T 221, M/T 237
M	22000800	For EM/ET 223, M/T 223
M	22224001	For EM/ET 224, EM/ET 236*
M	22001100	For EM/ET 238, M/T 238, M/T 246
M	22000900	For EM/ET 239-241, M/T 240, M/T 241, M/T 250
M	22001200	For EM/ET 242, M/T 242
M	22247001	For EM/ET 247*

Scope of delivery: 1 mounting panel

Note: * = The mounting panel can also be fitted in the enclosure lid for types 22207001, 22212000, 22214001, 22218001, 22224001, 22224001 and 22247001.



Euromas II accessories



DIN rail acc. to DIN EN 60715 TH 15

Model	Order no.	Note:
TS 15	22150501	For EM/ET 206
TS 15	22150701	For EM/ET 207-210, EM/ET 225
TS 15	22150901	For EM/ET 212
TS 15	22151101	For EM/ET 213, EM/ET 215-217, EM/ET 227
TS 15	22151901	For EM/ET 214, EM/ET 221-223, EM/ET 232, EM/ET 237
TS 15	22151401	For EM/ET 218
TS 15	22151501	For EM/ET 220, EM/ET 229-231, EM/ET 238
TS 15	22152301	For EM/ET 224, EM/ET 233-236, EM/ET 239-242
TS 15	22152901	For EM/ET 247

Scope of delivery: 1 DIN rail



DIN rail acc. to DIN EN 60715 G 32

Model	Order no.	Note:
TS 32	22320701	For EM/ET 208-210, EM/ET 225
TS 32	22320901	For EM/ET 212
TS 32	22321101	For EM/ET 213, EM/ET 215-217, EM/ET 227
TS 32	22321901	For EM/ET 214, EM/ET 221-223, EM/ET 232, EM/ET 237
TS 32	22321401	For EM/ET 218
TS 32	22321501	For EM/ET 220, EM/ET 229-231, EM/ET 238
TS 32	22322301	For EM/ET 224, EM/ET 233-236, EM/ET 239-242

Scope of delivery: 1 DIN rail



DIN rail acc. to DIN EN 60715 TH 35

Model	Order no.	Note:
TS 35	22350701	For EM/ET 208-210, EM/ET 225
TS 35	22350901	For EM/ET 212
TS 35	22351101	For EM/ET 213, EM/ET 215-217, EM/ET 227
TS 35	22351901	For EM/ET 214, EM/ET 221-223, EM/ET 232, EM/ET 237
TS 35	22351401	For EM/ET 218
TS 35	22351501	For EM/ET 220, EM/ET 229-231, EM/ET 238
TS 35	22352301	For EM/ET 224, EM/ET 233-236, EM/ET 239-242

Scope of delivery: 1 DIN rail

Application example

of our comprehensive range of services for Euromas II.

**Mechanical processing:**

Milling, drilling, countersinking, thread-cutting, punching
Ultrasonic welding of individual mounting points

Mounting work:

Mounting of cable glands and threaded bolts

**This is only a small selection
of our comprehensive range of services,
with which we manufacture individual
products of excellent quality.**

For more information, please see the introduction to the catalogue.

Euromas-ABS / Polycarbonate

Classic enclosure made
of polycarbonate or
lower-cost ABS

- 36 sizes
- 19 different M...V0 versions corresponding to UL 94 V0
- All M versions are listed under UL file no. 196 706
- Terminals and mounting on request
- Fixing screws for DIN rails or mounting panels included in scope of delivery



Colour	Light grey, similar to RAL 7035; special colours on request
Protection class	IP 65/DIN EN 60529, higher ingress protection on request
Enclosure material	ABS, PC (UV-stabilised) or PC UL 94 V0, seal made of CR; further UL 94 V0 types on request; for details see Technical Information

- Mounting bosses for metric threaded bushings
- Optional hinges allow easy opening/closing of the lids
- Material shrinkage may result in ABS enclosures being approx. 0.1 – 0.25% larger





Maximum insertion with Phoenix modular terminals

	MBK 2.5	MBK 3	MBK 5	UK 3 N	UK 5 N	UK 10 N
DIN rail TS 15	x	x	x			
DIN rail TS 32				x	x	x
DIN rail TS 35				x	x	x
Bridgeable		x	x	x	x	x
End-angle piece	2	2	2	2	2	2
End plate	-	-	-	1	1	1
Conductor cross-section (mm ²) fine-strand	1.5	2.5	4	2.5	4	10
Conductor cross-section (mm ²) single-wire	2.5	4	4	4	6	16
Nominal voltage (V)	500	500	500	750	750	800
Current-carrying capacity (A)	26	32	34	34	34	76
Terminal width (mm)	5.2	5.2	6.2	5.2	6.2	10.2

Model	Number per DIN rail					
M/T 205	1 x KL16/4 PA-DS terminal block					
M/T 206	1 x KL16/8 PA-DS terminal block					
M/T 208	7					
M/T 210	7	7	5			
M/T 215	14	14	11			
M/T 216	14	14	11			
M/T 217	15	15	12			
M/T 219	22	22	18	22	18	11
M/T 220	22	22	18			
M/T 221	30	30	24	29	23	15
M/T 223	30	30	24	29	23	15
M/T 225	7	7	5	6	5	3
M/T 226	14	14	11	13	11	7
M/T 227	15	15	12	14	11	7
M/T 228	15	15	12	14	11	7
M/T 230	14	14	11	13	11	7
M/T 231	22	22	18	21	18	11
M/T 235	22	22	18	21	18	11
M/T 237	30	30	24	29	23	15
M/T 238	22	22	18	21	18	11
M/T 240	38	38	30	36	30	20
M/T 2401	38	38	30	36	30	20
M/T 241	38	38	30	36	30	20
M/T 242	38	38	30	36	30	20
M/T 243	38	38	30	36	30	20
M/T 244	52	52	47	50	45	28
M/T 245	52	52	47	50	45	28
M/T 246	22	22	18	21	18	11
M/T 250	38	38	30	36	32	20
M/T 251	60	60	50	58	48	30
M 252	48	48	40	46	40	24
M/T 253	48	48	40	46	40	24
M/T 254	48	48	40	46	40	24
M/T 255	60	60	50	58	48	30
T 260	60	60	50	58	48	30

Maximum insertion with Weidmüller modular terminals

	AKZ 1.5	AKZ 2.5	AKZ 4	SAK 2.5	SAK 4
DIN rail TS 15	x	x	x		
DIN rail TS 32				x	x
DIN rail TS 35					
Bridgeable	x	x	x	x	x
End-angle piece	2	2	2	2	2
End plate	1	1	1	1	1
Conductor cross-section (mm ²) fine-strand	1.5	2.5	4	2.5	4
Conductor cross-section (mm ²) single-wire	2.5	4	6	4	10
Nominal voltage (V)	400	250	500	800	800
Current-carrying capacity (A)	17.5	24	32	24	32
Terminal width (mm)	5	5	6	6	6.5

Model	Number per DIN rail				
M/T 205	1 x KL16/4 PA-DS terminal block				
M/T 206	1 x KL16/8 PA-DS terminal block				
M/T 208	7	7			
M/T 210	7	7	6		
M/T 215	14	14	12		
M/T 216	14	14	12		
M/T 217	14	14	12		
M/T 219	22	22	18		
M/T 220	30	22	18		
M/T 221	30	30	25	25	23
M/T 223	7	30	25	25	23
M/T 225	14	7	6	6	5
M/T 226	14	14	12	12	9
M/T 227	14	14	12	12	11
M/T 228	14	14	12	12	11
M/T 230	14	14	12	12	11
M/T 231	21	21	17	17	16
M/T 235	21	21	17	17	16
M/T 237	30	30	25	25	23
M/T 238	21	21	17	17	16
M/T 240	40	40	33	33	30
M/T 2401	40	40	33	33	30
M/T 241	40	40	33	33	30
M/T 242	40	40	33	33	30
M/T 243	40	40	33	33	30
M/T 244	54	54	49	49	43
M/T 245	54	54	49	49	43
M/T 246	21	21	17	17	16
M/T 250	40	40	33	33	30
M/T 251	62	62	52	52	46
M 252	48	48	42		
M/T 253	48	48	42	42	38
M/T 254	48	48	42	42	38
M/T 255	60	60	50	50	45
T 260	60	60	50	50	45



Euromas-ABS / polycarbonate

Euromas enclosure, polycarbonate

Model	Order no.	A	B	C	a1	a2	b1	b2	b3	c1	c2
M 205	02205000	52	50	35	46,4	30	44,4	28,2		10	31
M 205 G	02205400	52	50	35	46,4	30	44,4	28,2		10	31
M 206	02206000	65	50	35	59,4	43	44	27,7		10	29,5
M 206 G	02206200	65	50	35	59,4	43	44	27,7		10	29,5
M 208	02208000	98	64	36,4	89,4	74	55,4	32		9,2	29,4
M 210	02210000	82	80	55	75,3	56,6	73,3	36,5		15	49
M 210 G	02210100	82	80	55	75,3	56,6	73,3	36,5		15	49
M 215	02215000	120	80	55	113,3	94,5	73,3	36,5		15	49,5
M 215 G	02215100	120	80	55	113,3	94,5	73,3	36,5		15	49,5
M 216	02216000	120	80	60	113,3	94,5	73,3	36,5		20	54
M 216 G	02216100*	120	80	60	113,3	94,5	73,3	36,5		20	54
M 217	02217000	122	120	55	115,3	96,5	113,3	76,5		15	48
M 217 G	02217200	122	120	55	115,3	96,5	113,3	76,5		15	48
M 219	02219000	160	80	60	153,5	134,7	73,5	36,7		20	54
M 220	02220000	160	80	55	153,5	134,7	73,5	36,7		15	49
M 220 G	02220100	160	80	55	153,5	134,7	73,5	36,7		15	49
M 221	02221000	200	120	75	193	174,2	113	74,2		15	68,5
M 221 G	02221100	200	120	75	193	174,2	113	74,2		15	68,5
M 223	02223000	200	150	75	193	174	143	105		15	68,5
M 223 G	02223100	200	150	75	193	174	143	105		15	68,5
M 225	02225000	82	80	85	75	56	73	36		15	79
M 225 G	02225100	82	80	85	75	56	73	36		15	79
M 226	02226000	120	80	85	113	94	73	36		15	79,5
M 226 G	02226100	120	80	85	113	94	73	36		15	79,5
M 227	02227000	122	120	85	115	96,2	113	76,2		15	78
M 227 G	02227100	122	120	85	115	96,2	113	76,2		15	78
M 228	02228000	122	120	105	115	96,2	113	76,2		35	98,5
M 228 G	02228100	122	120	105	115	96,2	113	76,2		35	98,5
M 230	02230000	120	80	90	113	94	73	36		20	84
M 231	02231000	160	80	85	153	134	73	36		15	79
M 231 G	02231100	160	80	85	153	134	73	36		15	79
M 235	02235000	160	80	90	153	134	73	36		20	84
M 237	02237000	200	120	90	193	174,2	113	74,2		30	83,5
M 237 G	02237100	200	120	90	193	174,2	113	74,2		30	83,5
M 238	02238000	160	120	90	153	134,2	113	74,2		30	83,5
M 238 G	02238100	160	120	90	153	134,2	113	74,2		30	83,5
M 2381	02238200	160	120	75	153	134,2	113	74,2		15	68,5
M 2381 G	02238300	160	120	75	153	134,2	113	74,2		15	68,5
M 240	02240000	250	160	90	243	224	153	115	134	15	84
M 240 G	02240100	250	160	90	243	224	153	115	134	15	84
M 2401	02240200	240,3	160,3	90	233	214,7	153	116,7	134,7	15	84
M 2401 G	02240300	240,3	160,3	90	233	214,7	153	116,7	134,7	15	84

Euromas-ABS / polycarbonate



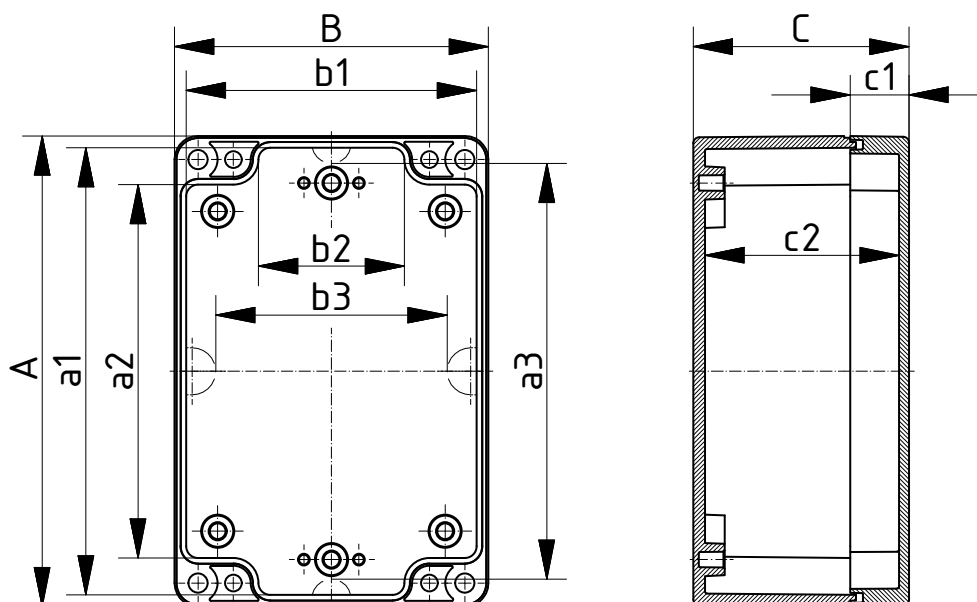
Euromas enclosure, polycarbonate

Model	Order no.	A	B	C	a1	a2	b1	b2	b3	c1	c2
M 241	02241000	250	160	119	243	224	153	115	134	44	113
M 242	02242000	240,5	120	100,5	233,5	216,2	113	76,9		25	94
M 242 G	02242100	240,5	120	100,5	233,5	216,2	113	76,9		25	94
M 243	02243000	240,3	160,3	120	233	214,7	153	116,7	134,7	45	113,5
M 243 G	02243100	240,3	160,3	120	233	214,7	153	116,7	134,7	45	113,5
M 244	02244000	340	150	100	329,3	301,3	139,3	87,3		20	92,5
M 244 G	02244100	340	150	100	329,3	301,3	139,3	87,3		20	92,5
M 245	02245000	340	150	120	329,3	301,3	139,3	87,3		40	113
M 246	02246000	160	120	140	153	134,2	113	74,2		80	133,5
M 246 G	02246100	160	120	140	153	134,2	113	74,2		80	133,5
M 250	02250000	250	160	150	243	224	153	115	134	75	144
M 251	02251000	360	160	100	351,7	333,7	151,7	113,7	134,7	25	93,5
M 252	02252000	300	230	65	293,1	274,1	223,1	186,1	204,1	10	58,5
M 253	02253000	300	230	85	293,1	274,1	223,1	186,1	204,1	30	78,5
M 253 G	02253100	300	230	85	293,1	274,1	223,1	186,1	204,1	30	78,5
M 254	02254000	300	230	110	293,1	274,1	223,1	186,1	204,1	55	103,5
M 254 G	02254100	300	230	110	293,1	274,1	223,1	186,1	204,1	55	103,5
M 255	02255000	360	200	149,5	350,3	318,3	190,3	138,3	159,3	49,5	142
M 255 G	02255100	360	200	149,5	350,3	318,3	190,3	138,3	159,3	49,5	142

Scope of delivery: Lid and base, lid screws made of V2A, self-tapping screws for mounting bosses

Note: * = Available on request. Accessories: see following pages.

G = Design with crystal-clear lid.





Euromas-ABS / polycarbonate

Euromas enclosure, ABS

Model	Order no.	A	B	C	a1	a2	b1	b2	b3	c1	c2
T 205	03205000	52	50	35	46,4	30	44,4	28,2		10	31
T 205 SV	03205400*	52	50	35	46,4	30	44,4	28,2		10	31
T 206	03206000	65	50	35	59,4	43	44	27,7		10	29,5
T 206 SV	03206400*	65	50	35	59,4	43	44	27,7		10	29,5
T 208	03208000	98	64	36,4	89,4	74	55,4	32		9,2	29,4
T 208 SV	03208400*	98	64	36,4	89,4	74	55,4	32		9,2	29,4
T 210	03210000	82	80	55	75,3	56,6	73,3	36,5		15	49
T 210 SV	03210400*	82	80	55	75,3	56,6	73,3	36,5		15	49
T 215	03215000	120	80	55	113,3	94,5	73,3	36,5		15	49,5
T 215 SV	03215400*	120	80	55	113,3	94,5	73,3	36,5		15	49,5
T 216	03216000	120	80	60	113,3	94,5	73,3	36,5		20	54
T 216 SV	03216400*	120	80	60	113,3	94,5	73,3	36,5		20	54
T 217	03217000	122	120	55	115,3	96,5	113,3	76,5		15	48
T 217 SV	03217400*	122	120	55	115,3	96,5	113,3	76,5		15	48
T 219	03219000	160	80	60	153,5	134,7	73,5	36,7		20	54
T 219 SV	03219400*	160	80	60	153,5	134,7	73,5	36,7		20	54
T 220	03220000	160	80	55	153,5	134,7	73,5	36,7		15	49
T 220 SV	03220400*	160	80	55	153,5	134,7	73,5	36,7		15	49
T 221	03221000	200	120	75	193	174,2	113	74,2		15	68,5
T 221 SV	03221400*	200	120	75	193	174,2	113	74,2		15	68,5
T 223	03223000	200	150	75	193	174	143	105		15	68,5
T 223 SV	03223400*	200	150	75	193	174	143	105		15	68,5
T 225	03225000	82	80	85	75	56	73	36		15	79
T 225 SV	03225400*	82	80	85	75	56	73	36		15	79
T 226	03226000	120	80	85	113	94	73	36		15	79,5
T 226 SV	03226400*	120	80	85	113	94	73	36		15	79,5
T 227	03227000	122	120	85	115	96,2	113	76,2		15	78
T 227 SV	03227400*	122	120	85	115	96,2	113	76,2		15	78
T 228	03228000	122	120	105	115	96,2	113	76,2		35	98,5
T 230	03230000	120	80	90	113	94	73	36		20	84
T 230 SV	03230400*	120	80	90	113	94	73	36		20	84
T 231	03231000	160	80	85	153	134	73	36		15	79
T 231 SV	03231400*	160	80	85	153	134	73	36		15	79
T 235	03235000	160	80	90	153	134	73	36		20	84
T 235 SV	03235400*	160	80	90	153	134	73	36		20	84
T 237	03237000	200	120	90	193	174,2	113	74,2		30	83,5
T 237 SV	03237400*	200	120	90	193	174,2	113	74,2		30	83,5
T 238	03238000	160	120	90	153	134,2	113	74,2		30	83,5
T 238 SV	03238400*	160	120	90	153	134,2	113	74,2		30	83,5
T 2381	03238200	160	120	75	153	134,2	113	74,2		15	68,5
T 240	03240000	250	160	90	243	224	153	115	134	15	84
T 240 SV	03240400*	250	160	90	243	224	153	115	134	15	84

Euromas-ABS / polycarbonate



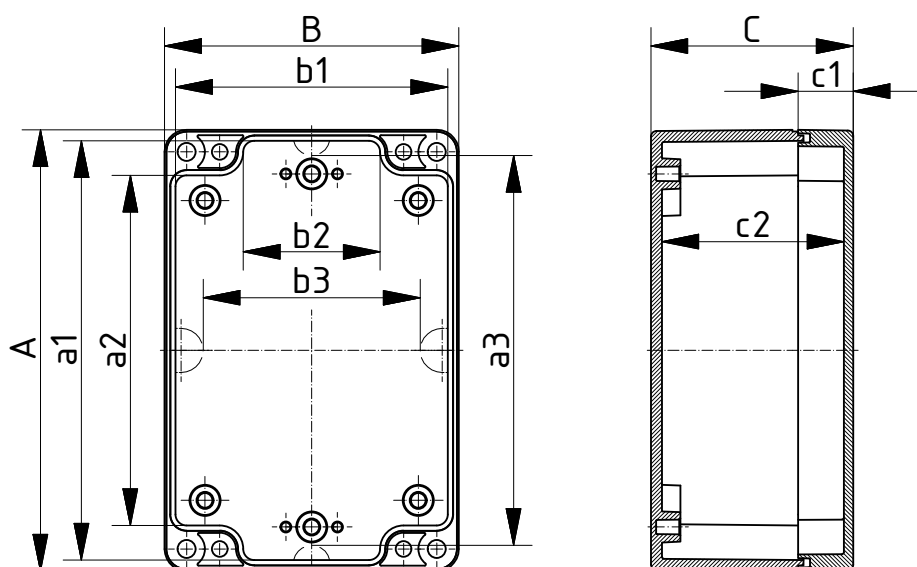
Euromas enclosure, ABS

Model	Order no.	A	B	C	a1	a2	b1	b2	b3	c1	c2
T 2401	03240200	240,3	160,3	90	233	214,7	153	116,7	134,7	15	84
T 2401 SV	03240240*	240,3	160,3	90	233	214,7	153	116,7	134,7	15	84
T 241	03241000	250	160	119	243	224	153	115	134	44	113
T 241 SV	03241400*	250	160	119	243	224	153	115	134	44	113
T 242	03242000	240,5	120	100,5	233,5	216,2	113	76,9		25	94
T 242 SV	03242400*	240,5	120	100,5	233,5	216,2	113	76,9		25	94
T 243	03243000	240,3	160,3	120	233	214,7	153	116,7	134,7	45	113,5
T 243 SV	03243400*	240,3	160,3	120	233	214,7	153	116,7	134,7	45	113,5
T 244	03244000	340	150	100	329,3	301,3	139,3	87,3		20	92,5
T 245	03245000	340	150	120	329,3	301,3	139,3	87,3		40	113
T 246	03246000	160	120	140	153	134,2	113	74,2		80	133,5
T 250	03250000	250	160	150	243	224	153	115	134	75	144
T 251	03251000	360	160	100	351,7	333,7	151,7	113,7	134,7	25	93,5
T 251 SV	03251400*	360	160	100	351,7	333,7	151,7	113,7	134,7	25	93,5
T 253	03253000	300	230	85	293,1	274,1	223,1	186,1	204,1	30	78,5
T 253 SV	03253400*	300	230	85	293,1	274,1	223,1	186,1	204,1	30	78,5
T 253 F	03253200*	300	230	85	293,1	274,1	223,1	186,1	204,1	30	78,5
T 254	03254000	300	230	110	293,1	274,1	223,1	186,1	204,1	55	103,5
T 254 SV	03254400*	300	230	110	293,1	274,1	223,1	186,1	204,1	55	103,5
T 255	03255000	360	200	149,5	350,3	318,3	190,3	138,3	159,3	49,5	142
T 255 SV	03255400*	360	200	149,5	350,3	318,3	190,3	138,3	159,3	49,5	142
T 260	03260000	360	400	150	350,3	318,3	390,3	338,3	358,3	50	142

Scope of delivery: Lid and base, lid screws made of V2A, self-tapping screws for mounting bosses

Note: * = Available on request. Accessories: see following pages.

SV = version with quick-release fastener; F = version with membrane keypad area



Z-2503224



Euromas-ABS / polycarbonate

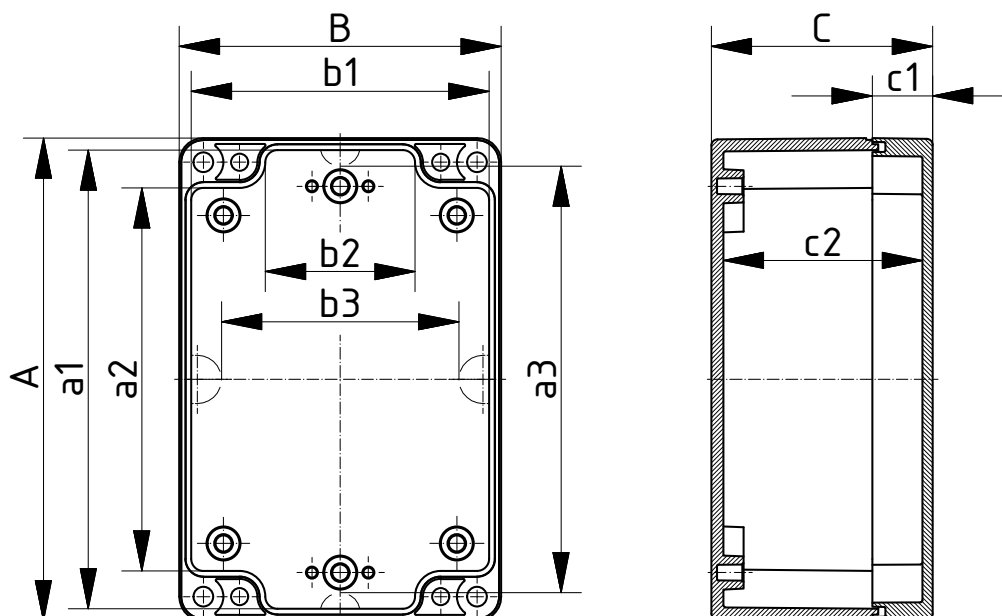
Euromas enclosure, polycarbonate

Model	Order no.	A	B	C	a1	a2	b1	b2	b3	c1	c2
M 205-V0	02205094	52	50	35	46,4	30	44,4	28,2		10	31
M 206-V0	02206094	65	50	35	59,4	43	44	27,7		10	29,5
M 208-V0	02208094	98	64	36,4	89,4	74	55,4	32		9,2	29,4
M 210-V0	02210094	82	80	55	75,3	56,6	73,3	36,5		15	49
M 215-V0	02215094	120	80	55	113,3	94,5	73,3	36,5		15	49,5
M 217-V0	02217094	122	120	55	115,3	96,5	113,3	76,5		15	48
M 220-V0	02220094	160	80	55	153,5	134,7	73,5	36,7		15	49
M 221-V0	02221094	200	120	75	193	174,2	113	74,2		15	68,5
M 223-V0	02223094	200	150	75	193	174	143	105		15	68,5
M 225-V0	02225094	82	80	85	75	56	73	36		15	79
M 226-V0	02226094	120	80	85	113	94	73	36		15	79,5
M 227-V0	02227094	122	120	85	115	96,2	113	76,2		15	78
M 228-V0	02228094	122	120	105	115	96,2	113	76,2		35	98,5
M 231-V0	02231094	160	80	85	153	134	73	36		15	79
M 237-V0	02237094	200	120	90	193	174,2	113	74,2		30	83,5
M 238-V0	02238094	160	120	90	153	134,2	113	74,2		30	83,5
M 2401-V0	02240294	240,3	160,3	90	233	214,7	153	116,7	134,7	15	84
M 242-V0	02242094	240,5	120	100,5	233,5	216,2	113	76,9		25	94
M 255-V0	02255094	360	200	149,5	350,3	318,3	190,3	138,3	159,3	49,5	142

Scope of delivery: Lid and base, lid screws made of V2A, self-tapping screws for mounting bosses

Note: * = Available on request. Accessories: see following pages.

V0 = version in UL 94 V0 enclosure material



Z-2503224

Euromas accessories

Mounting plates, laminated paper (Pertinax)

Model	Order no.	Note
M	22000100	For EM/ET 205, M/T 205
M	22000200	For EM/ET 206, M/T 206
M	22000300	For EM/ET 210, EM/ET 225, M/T 210, M/T 225
M	22000400	For EM/ET 215, M/T 215-216, M/T 226, M/T 230
M	22000500	For EM/ET 217, EM/ET 227, M/T 217, M/T 227-228
M	22000600	For EM/ET 220, EM/ET 231, M/T 219-220, M/T 231-235
M	22000700	For EM/ET 221, EM/ET 237, M/T 221, M/T 237
M	22000800	For EM/ET 223, M/T 223
M	22000900	For EM/ET 239-241, M/T 240, M/T 241, M/T 250
M	22001000	For M/T 2401, M/T 243
M	22001100	For EM/ET 238, M/T 238, M/T 246
M	22001200	For EM/ET 242, M/T 242, M/T 2381
M	22001300	For M/T 244-245
M	22001400	For M/T 251
M	22001500	For M/T 252-254
M	22001600	For M/T 255
M	22001610	For M/T 260

Scope of delivery: 1 mounting panel



Knurled screws

Model	Order no.	Note
RD	22003100	For M/T 210-215, M/T 217, M/T 220-227, M/T 231
RD	22003200	For M/T 240-2401, M/T 2381
RD	22003310	For M/T 241, M/T 243

Scope of delivery: 1 set, suitable for one enclosure

Note: Do not use with enclosures with quick-release fastener.



Rubber feet, plug-in

Model	Order no.	Note
F	22003300	For M/T 208-260

Scope of delivery: 4 pieces



Euromas accessories



Silicone seal for lid

Model	Order no.	Note
SIL	22003500	For M/T 210, M/T 225
SIL	22003600	For M/T 215, M/T 226, M/T 230, M/T 216
SIL	22003700	For M/T 217, M/T 227-228
SIL	22003800	For M/T 219-220, M/T 231-235
SIL	22003900	For M/T 221, M/T 237
SIL	22004100	For M/T 240, M/T 241, M/T 250
SIL	22004200	For M/T 2401, M/T 243
SIL	22004300	For M/T 238, M/T 246, M/T 2381
SIL	22004400	For M/T 242
SIL	22004500	For M/T 244-245
SIL	22004600	For M/T 251
SIL	22004700	For M/T 252-254
SIL	22004800	For M/T 255
SIL	22005500	For M/T 223

Scope of delivery: 1 seal



Wall brackets, screw-on at rear

Model	Order no.	Note
WL	22004900	For M/T 210-243, M/T 246-253

Scope of delivery: 4 pieces



DIN rails DIN EN 60715 TH 15

Model	Order no.	Note
TS 15	22001800	For M/T 205
TS 15	22001710	For M/T 206
TS 15	22001700	For M/T 210, M/T 225
TS 15	22001900	For M/T 215-217, M/T 226-230
TS 15	22002000	For M/T 219-220, M/T 231-235, M/T 238, M/T 246, P 325, M/T 2381
TS 15	22002100	For M/T 221-223, M/T 237
TS 15	22002402	For M/T 240-243, M/T 250, M/T 2401
TS 15	22002720	For M/T 244-245
TS 15	22002820	For M/T 251
TS 15	22002920	For M/T 252-254

Scope of delivery: 1 DIN rail

Euromas accessories

DIN rails DIN EN 60715 G 32

Model	Order no.	Note
TS 32	22001701	For M/T 210, M/T 225, P 305, P 326
TS 32	22002010	For M/T 219-220, M/T 231-235, M/T 238, M/T 246, P 316, P 325, M/T 2381
TS 32	22002110	For M/T 221-223, M/T 237
TS 32	22002300	For M/T 240, M/T 241, M/T 250
TS 32	22002400	For M/T 2401, M/T 242-243
TS 32	22002700	For M/T 244-245
TS 32	22002800	For M/T 251
TS 32	22002900	For M/T 252-254
TS 32	22002950	For M/T 255
TS 32	22002960	For T 260

Scope of delivery: 1 DIN rail



DIN rails DIN EN 60715 TH 35

Model	Order no.	Note
TS 35	22001702	For M/T 210, M/T 225, P 305, P 326
TS 35	22001910	For M/T 215-217, M/T 226-230
TS 35	22002020	For M/T 219-220, M/T 231-235, M/T 238, M/T 246, P 316, P 325, M/T 2381
TS 35	22002120	For M/T 221-223, M/T 237
TS 35	22002310	For M/T 240, M/T 241, M/T 250
TS 35	22002401	For M/T 2401, M/T 242-243
TS 35	22002710	For M/T 244-245
TS 35	22002810	For M/T 251
TS 35	22002950	For M/T 255

Scope of delivery: 1 DIN rail



Threaded inserts for mounting bosses

Model	Order no.	Note
DODGE M3x6,5	59002810	ND = 4.0 x 6.5
DODGE M4x9,5	59002820	ND = 5.4 x 9.5

Scope of delivery: 100 pieces

Note: Put the threaded insert into the boss until it touches the base. Then hammer down the stretcher plate using a pin.



Hinge set, polycarbonate

Model	Order no.
SchM	22006000

Scope of delivery: 1 hinge set





Euromas-Aluminium / F05 enclosures

Robust aluminium enclosure with protection class IP 66

- 43 sizes
- Listing under UL file no. E 196 706
- Versions with silicone lid seal with higher temperature resistance (approx. 130°C)
- Types with crystal-clear lid on request
- SWB types available on request for saltwater-proof applications or for applications requiring higher levels of anti-corrosion protection
- EMC set on request for increasing electromagnetic shielding levels
- Terminals and mounting on request
- Types made of Vestamid or aluminium with F05 insertion opening



Colour	Silver grey, similar to RAL 7001; special colours on request. V 215: black, similar to RAL 9005
Protection class	IP 66/DIN EN 60529, higher protection class on request. V 215: IP 65/DIN EN 60529
Enclosure material	G Al Si 12, PU foamed seal; V215: Vestamid, CR seal; for details see Technical Information





Welcome to BOPLA City!

Maximum insertion with Phoenix modular terminals

	MBK 2.5	MBK 3	MBK 5	UK 3 N	UK 5 N	UK 10 N
DIN rail TS 15	x	x	x			
DIN rail TS 32				x	x	x
DIN rail TS 35				x	x	x
Bridgeable		x	x	x	x	x
End-angle piece	2	2	2	2	2	2
End plate	-	1	1	1	1	1
Conductor cross-section (mm ²) fine-strand	1.5	2.5	4	2.5	4	10
Conductor cross-section (mm ²) single-wire	2.5	4	4	4	6	16
Nominal voltage (V)	500	500	500	750	750	800
Current-carrying capacity (A)	26	32	34	34	34	76
Terminal width (mm)	5.2	5.2	6.2	5.2	6.2	10.2

Model	Number per DIN rail					
A 100						
A 101	4					
A 102	11					
A 103	20					
A 104	14					
A 105	6	6	6			
A 106	24	24				
A 110	16	16	12			
A 114	30	30	25			
A 115	26	26	22			
A 116	11	11	9			
A 117	40	40	34			
A 118	22	22	18			
A 119				12	10	6
A 120				12	10	6
A 121				15	13	8
A 122				31	26	15
A 123				31	26	15
A 124				58	48	29
A 125				19	16	9
A 126				27	22	13
A 127				23	19	11
A 130				38	32	19
A 131				42	35	21
A 135				57	48	29
A 138				96	80	49
A 140				27	22	13
A 145				32	27	16
A 150				27	22	13
A 155				42	35	21
A 160				52	43	26
A 165				52	43	26
A 168				65	55	33
A 169				103	87	53
A 170				65	55	33

	MBK 2.5	MBK 3	MBK 5	UK 3 N	UK 5 N	UK 10 N
Model	Number per DIN rail					
A 175				65	55	33
A 180				65	55	33
A 185				65	55	33
A 190				65	55	33
A 195				69	58	35
A 196				103	87	53
A 197				103	87	53
A 198				103	87	53

Maximum insertion with Weidmüller modular terminals

	AKZ 1.5	AKZ 2.5	AKZ 4	SAK 2.5	SAK 4
DIN rail TS 15	x	x	x		
DIN rail TS 32				x	x
DIN rail TS 35					
Bridgeable	x	x	x	x	x
End-angle piece	2	2	2	2	2
End plate	1	1	1	1	1
Conductor cross-section (mm ²) fine-strand	1.5	2.5	4	2.5	4
Conductor cross-section (mm ²) single-wire	2.5	4	6	4	10
Nominal voltage (V)	400	250	500	800	800
Current-carrying capacity (A)	17.5	24	32	24	32
Terminal width (mm)	5	5	6	6	6.5

Model	Number per DIN rail				
A 100		1 x MK3/4 terminal block			
A 101		1 x BK4 terminal block			
A 102		1 x BK6 terminal block			
A 103		1 x BK12 terminal block			
A 104		1 x BK12 terminal block			
A 105	6	6	4		
A 106		1 x BK12 terminal block			
A 110	15	15	12		
A 114	30	30	25		
A 115	25	25	20		
A 116	10	10	8		
A 117	40	40	33		
A 118	22	22	18		
A 119				10	9
A 120				10	9
A 121				13	12
A 122				26	24
A 123				26	24
A 124				50	46
A 125				16	15



Maximum insertion with Weidmüller modular terminals

	AKZ 1.5	AKZ 2.5	AKZ 4	SAK 2.5	SAK 4
Modell	Number per DIN rail				
A 126				23	21
A 127				20	18
A 130				33	30
A 131				36	33
A 135				50	46
A 138				83	77
A 140				23	21
A 145				28	26
A 150				23	21
A 155				36	34
A 160				45	41
A 165				45	41
A 168				56	52
A 169				90	83
A 170				56	52
A 175				56	52
A 180				56	52
A 185				56	52
A 190				56	52
A 195				60	55
A 196				90	83
A 197				90	83
A 198				90	83

Euromas-Aluminium



Euromas enclosure, aluminium

Model	Order no.	A	B	C	a1	a2	b1	b2	b3	c1	c2
A 100	01100000	50	45	30	44	30	39	25		6	25
A 101	01101000	58	64	34	50,5	34	56,8	32		9	28,5
A 101 G	01101500*	58	64	34	50,5	34	56,8	32		9	28,5
A 102	01102000	98	64	34	90,5	74	56,8	32		9	28,5
A 102 G	01102500*	98	64	34	90,5	74	56,8	32		9	28,5
A 103	01103000	150	64	34	142,5	126	56,8	32		9	28,5
A 104	01104000	115	64	34,5	107,5	90,6	56,5	31,6		9	29
A 105	01105000	75	80	57	65,5	50,4	70,5	47,4		15	51
A 105 G	01105500*	75	80	57	65,5	50,4	70,5	47,4		15	51
A 106	01106000	186	64	34,5	178	161,1	56,5	31,6		9	29
A 110	01110000	125	80	57	115,5	100,4	70,5	47,4		15	51
A 110 G	01110500*	125	80	57	115,5	100,4	70,5	47,4		15	51
A 114	01114000	200	100	81	190	172	90	52		20	74
A 115	01115000	175	80	57	165,5	150,4	70,5	47,4		15	51
A 115 G	01115500*	175	80	57	165,5	150,4	70,5	47,4		15	51
A 116	01116000	100	100	81	90	72	90	52		20	74
A 117	01117000	250	80	52	240,5	225,4	70,5	47,4		12	45
A 118	01118000	160	100	81	150	132	90	52		20	74
A 119	01119000	122	120	81	111	88	109	64		20	72
A 120	01120000	122	120	91	111	89,1	109	64		30	82
A 121	01121000	140	140	91	129	101	129	74		30	82
A 122	01122000	220	120	81	209	186	109	64		20	72
A 123	01123000	220	120	91	209	186	109	64		30	82
A 124	01124000	360	120	81	349	326	109	64		20	72
A 125	01125000	160	160	91	148,6	117,6	149	88		20	82
A 126	01126000	200	140	91	189	161	129	74		30	82
A 127	01127000	180	180	101	169	138	169	108		30	92
A 130	01130000	260	160	91	248,6	217,6	149	88		20	91
A 131	01131000	280	180	101	269	238	169	108		30	92
A 135	01135000	360	160	91	348,6	317,6	149	88		20	82
A 138	01138000	560	160	91	548,5	517,5	149	88	113	20	82
A 140	01140000	200	230	111	189	157	219	157		20	102
A 145	01145000	230	100	111	218	158	88	58		20	101
A 150	01150000	200	230	180	190	158	220	158		20	170
A 155	01155000	280	230	111	268	237	218	157		20	102
A 160	01160000	330	230	111	318	286,5	217,5	156,5		20	102
A 165	01165000	330	230	181	316,5	285,5	216,5	155,5		20	170
A 168	01168000	400	230	111	387	357	217	157		20	102
A 169	01169000	600	230	111	586	558	216	158	188	20	100
A 170	01170000	400	230	225	384,5	354,5	214,5	155		20	214,5
A 175	01175000	400	310	111	392	359,5	301	239		20	101



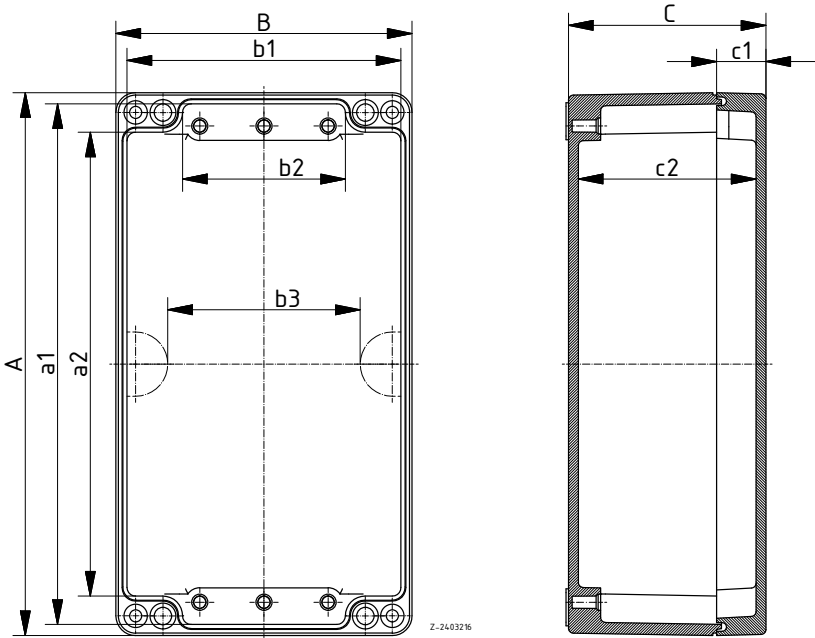
Euromas-Aluminium

Euromas enclosure, aluminium

Model	Order no.	A	B	C	a1	a2	b1	b2	b3	c1	c2
A 180	01180000	400	310	141	386,5	358	296,5	238,5		20	129,5
A 185	01185000	400	310	181	390	358,5	299	238		20	169,5
A 190	01190000	400	310	227	388,5	360,5	297,5	240		20	216
A 195	01195000	420	240	209,5	403,5	372,8	225	164		20	200,5
A 196	01196000	600	310	111	586	558	296	238	268	20	99,5
A 197	01197000	600	310	181	584	556	294	236	266	20	169,5
A 198	01198000	600	600	202,5	583	547	583	547	547	40	189

Scope of delivery: Lid and base, lid screws made of V2A, earthing screw

Note: * = Available on request. Accessories: See following pages.
A 198: Because of the wall fixing drill holes inside the sealed section of the enclosure, expert sealing of the wall fixing is necessary to attain protection class IP 66.
G = design with transparent lid (PC)



Euromas-Aluminium



Euromas enclosure, aluminium, with silicone lid seal

Model	Order no.	A	B	C	a1	a2	b1	b2	b3	c1	c2
A 100 SIL	01100010	50	45	30	44	30	39	25		6	25
A 101 SIL	01101010	58	64	34	50,5	34	56,8	32		9	28,5
A 102 SIL	01102010	98	64	34	90,5	74	56,8	32		9	28,5
A 103 SIL	01103010	150	64	34	142,5	126	56,8	32		9	28,5
A 104 SIL	01104010	115	64	34,5	107,5	90,6	56,5	31,6		9	29
A 105 SIL	01105010	75	80	57	65,5	50,4	70,5	47,4		15	51
A 106 SIL	01106010	186	64	34,5	178	161,1	56,5	31,6		9	29
A 110 SIL	01110011	125	80	57	115,5	100,4	70,5	47,4		15	51
A 114 SIL	01114010	200	100	81	190	172	90	52		20	74
A 115 SIL	01115010	175	80	57	165,5	150,4	70,5	47,4		15	51
A 116 SIL	01116010	100	100	81	90	72	90	52		20	74
A 117 SIL	01117010	250	80	52	240,5	225,4	70,5	47,4		12	45
A 118 SIL	01118010	160	100	81	150	132	90	52		20	74
A 119 SIL	01119010	122	120	81	111	88	109	64		20	72
A 120 SIL	01120010	122	120	91	111	89,1	109	64		30	82
A 121 SIL	01121010	140	140	91	129	101	129	74		30	82
A 122 SIL	01122010	220	120	81	209	186	109	64		20	72
A 123 SIL	01123011	220	120	91	209	186	109	64		30	82
A 124 SIL	01124010	360	120	81	349	326	109	64		20	72
A 125 SIL	01125011	160	160	91	148,6	117,6	149	88		20	82
A 126 SIL	01126010	200	140	91	189	161	129	74		30	82
A 127 SIL	01127010	180	180	101	169	138	169	108		30	92
A 130 SIL	01130011	260	160	91	248,6	217,6	149	88		20	91
A 131 SIL	01131010	280	180	101	269	238	169	108		30	92
A 135 SIL	01135011	360	160	91	348,6	317,6	149	88		20	82
A 138 SIL	01138010	560	160	91	548,5	517,5	149	88	113	20	82
A 140 SIL	01140010	200	230	111	189	157	219	157		20	102
A 145 SIL	01145010	230	100	111	218	158	88	58		20	101
A 150 SIL	01150010	200	230	180	190	158	220	158		20	170
A 155 SIL	01155010	280	230	111	268	237	218	157		20	102
A 160 SIL	01160010	330	230	111	318	286,5	217,5	156,5		20	102
A 165 SIL	01165010	330	230	181	316,5	285,5	216,5	155,5		20	170
A 168 SIL	01168010	400	230	111	387	357	217	157		20	102
A 169 SIL	01169010	600	230	111	586	558	216	158	188	20	100
A 170 SIL	01170010	400	230	225	384,5	354,5	214,5	155		20	214,5
A 175 SIL	01175010	400	310	111	392	359,5	301	239		20	101
A 180 SIL	01180010	400	310	141	386,5	358	296,5	238,5		20	129,5
A 185 SIL	01185010	400	310	181	390	358,5	299	238		20	169,5



Euromas-Aluminium

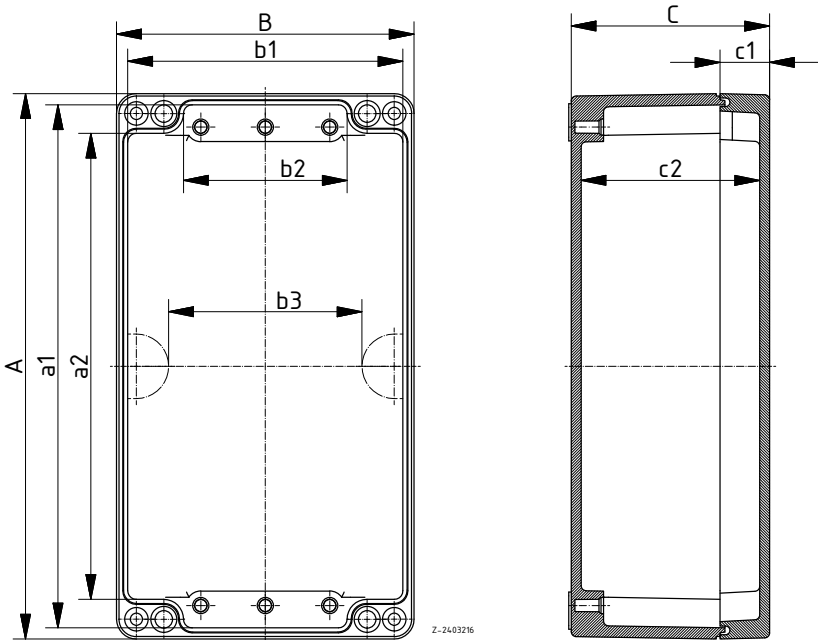
Euromas enclosure, aluminium

Model	Order no.	A	B	C	a1	a2	b1	b2	b3	c1	c2
A 195 SIL	01195010	420	240	209,5	403,5	372,8	225	164		20	200,5
A 196 SIL	01196010	600	310	111	586	558	296	238	268	20	99,5
A 197 SIL	01197010	600	310	181	584	556	294	236	266	20	169,5
A 198 SIL	01198010	600	600	202,5	583	547	583	547	547	40	189

Scope of delivery: Lid and base, lid screws made of V2A, earthing screw

Note: For accessories, see following pages

A 198: Because of the wall fitting drill holes inside the sealed lip, expert sealing of the wall fitting is required to achieve protection class IP 66.



Euromas accessories

Mounting panels, galvanised sheet steel

Model	Order no.	Note
M	21001100	For A 105, PK 105
M	21001200	For A 110, PK 110
M	21001202	For A 114
M	21001300	For A 115, PK 115
M	21001310	For A 116
M	21001320	For A 118
M	21001600	For A 119-120, P 332
M	21001610	For A 121
M	21001500	For A 122-123, P 331
M	21001550	For A 124
M	21001700	For A 125, P 330
M	21001710	For A 126
M	21001720	For A 127
M	21001800	For A 130, P 333
M	21001810	For A 131
M	21001900	For A 135, P 334
M	21002000	For A 138, P 345
M	21002100	For A 140, A 150
M	21002110	For A 145
M	21002120	For A 155
M	21002200	For A 160-165
M	21002400	For A 168, A 170
M	21002410	For A 169
M	21002420	For A 175-190
M	21002500	For A 195
M	21002510	For A 196-197
M	21002520	For A 198

Scope of delivery: 1 mounting panel



Euromas accessories



Capstan-headed screws, sealable

Model	Order no.	Note
KP	21007915	For A 100-118
KP	21007955	For A 119, A 122, A 124-125, A 130, A 135-190, A 196-197
KP	21007995	For A 120-121, A 123, A 126-127, A 131, P 331-332, P 337, P 341-342, P 335
KP	21007975	For A 195, P 330, P 333-336, P 339, P 345

Scope of delivery: 2 pieces



Allen cheese-head screw for lid

Model	Order no.	Note
IS	21007910	For A 100
IS	21007920	For A 101-118
IS	21007950	For A 119, A 122, A 124-125, A 130, A 135, A 140-168, A 170-190
IS	21007990	For A 120-121, A 123, A 126-127, A 131, P 331-332, P 337, P 341, P 3412, P 355
IS	21007960	For A 138, A 169, A 196-197
IS	21007970	For A 195, P 330, P 333-336, P 339
IS	21008010	For A 198

Scope of delivery: 1 set, suitable for one enclosure

Euromas accessories

Earthing bars with fitted terminal clamps

Model	Order no.	Note
E	21004600	For A 119-120, P 332
E	21004650	For A 121
E	21004700	For A 122-123, P 331
E	21005000	For A 124, A 135, P 334, P 339
E	21004800	For A 125, P 330
E	21004850	For A 126, A 140, A 150
E	21004860	For A 127
E	21004900	For A 130, P 333, P 337-338
E	21004950	For A 131
E	21005100	For A 138, P 345
E	21005250	For A 155
E	21005300	For A 160-165
E	21005400	For A 168, A 170-190, P 340-341, P 3412, P 355
E	21005500	For A 169, P 342
E	21005600	For A 195
E	21005650	For A 196-197

Scope of delivery: 1 earthing bar



Wall brackets, screw-on at rear

Model	Order no.	Note
WL	21004250	For A 114, A 116, A 118, P 305-322, P 324-329
WL	21004300	For A 119-198, P 330-355

Scope of delivery: 4 pieces



DIN rails DIN EN 60715 TH 15

Model	Order no.	Note
TS 15	21002650	For A 101
TS 15	21002600	For A 102
TS 15	21002700	For A 103
TS 15	21002800	For A 105, P 305, P 326, PK 105
TS 15	24003300	For A 106, P 319, P 329
TS 15	21002900	For A 110, PK 110
TS 15	21002950	For A 114
TS 15	21003000	For A 115, PK 115
TS 15	21003050	For A 116
TS 15	21003100	For A 117
TS 15	21003150	For A 118, P 316
TS 15	21003205	For A 119-120, P 332
TS 15	21003310	For A 122-123
TS 15	21003505	For A 130, P 333
TS 15	21004210	For A 195

Scope of delivery: 1 DIN rail



Euromas accessories



DIN rails DIN EN 60715 G 32

Model	Order no.	Note
TS 32	21002960	For A 114
TS 32	21003160	For A 118
TS 32	21003200	For A 119-120, P 332
TS 32	21003250	For A 121
TS 32	21003300	For A 122-123, P 331
TS 32	21003340	For A 124, A 135, P 334, P 339
TS 32	21003400	For A 125, P 330
TS 32	21003450	For A 126
TS 32	21003470	For A 127
TS 32	21003500	For A 130, P 333
TS 32	21003550	For A 131
TS 32	21003700	For A 138, P 345
TS 32	21003800	For A 140, A 150
TS 32	21003850	For A 145
TS 32	21003870	For A 155
TS 32	21003900	For A 160-165
TS 32	21004100	For A 168, A 170-190, P 340-341, P 3412, P 355
TS 32	21004150	For A 169, A 196-197, P 342
TS 32	21004200	For A 195
TS 32	21004170	For A 198

Scope of delivery: 1 DIN rail



DIN rails DIN EN 60715 TH 35

Model	Order no.	Note
TS 35	21002920	For A 110
TS 35	21003210	For A 119-120, P 332
TS 35	21003270	For A 121
TS 35	21003320	For A 122-123, P 331
TS 35	21003350	For A 124, A 135, P 334, P 339
TS 35	21003410	For A 125, P 330
TS 32	21003470	For A 127
TS 35	21003480	For A 127
TS 35	21003510	For A 130, P 333
TS 35	21003560	For A 131
TS 35	21003710	For A 138, P 345
TS 35	21003810	For A 140, A 150

Euromas accessories

DIN rails DIN EN 60715 TH 35

Model	Order no.	Note
TS 35	21003860	For A 145
TS 35	21003880	For A 155
TS 35	21003910	For A 160-165
TS 35	21004110	For A 168, A 170-190, P 340-341, P 3412, P 355
TS 35	21004160	For A 169, A 196-197, P 342
TS 35	21004205	For A 195
TS 35	21004180	For A 198

Scope of delivery: 1 DIN rail



Hinge set, diecast

Model	Order no.
SCHD	21007800

Scope of delivery: 1 hinge set

Note: Mechanical processing is required for mounting hinges.



Euromas enclosures with F05 insertion



Euromas, aluminium, with F05 opening, IP 66 / DIN EN 60529

Model	Order no.	A	B	C
A 110 F05	01110800	125	80	57
A 110 F05 Ex	01110600	125	80	57

Scope of delivery: Base, lid, for EX design additional EX type plate, earthing connection M 4 internal and external

Note: For the A 110 F05 EX, a component check was carried out according to directive 94/9/EC. EC type examination certificate PTB 04 ATEX 1116 U.

Explosion protection:

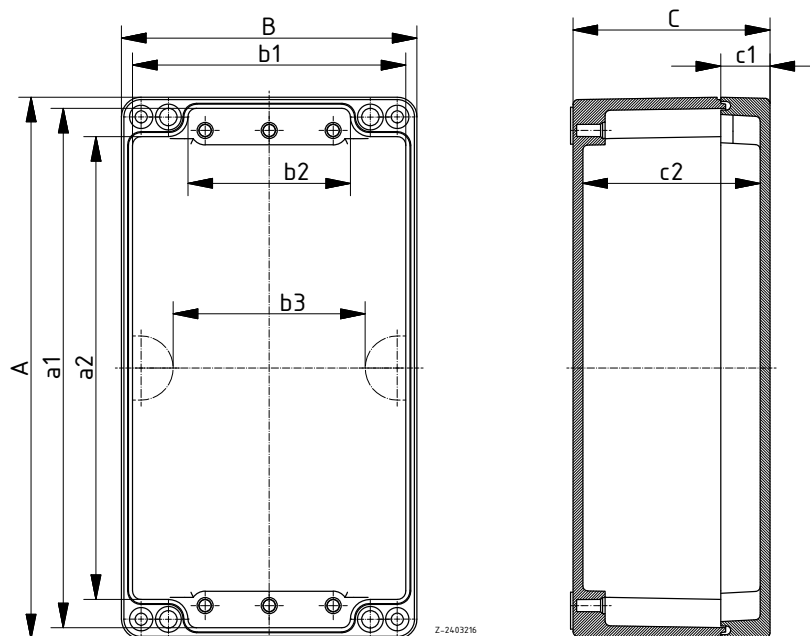
- EX II 2G EExe II
- EX II 2D IP 66

Further information on A 110 F05:

1. Cable and wire inlets and blanking plugs acc. to DIN 46320 and 46255 with separate test certificate and separately tested elastomer seal.
2. Operating temperatures for the adjusting axis sealing rings:
 - Round sealing ring 9.0x1.5 – NBR 70: -30°C ... +100°C
 - Round sealing ring 9.0x1.5 – VMQ 70 (silicone): -55°C ... +155°C

Important: As the installation of the adjusting axis including the adjusting axis seal only takes place during complete assembly of the enclosure, the manufacturer of the complete unit is responsible for ensuring compliance with protection class IP 65 acc. to DIN EN 60529 for this sealed point! The enclosure manufacturer cannot accept any warranty in respect of this.

EX cable glands as accessories.



Euromas enclosures with F05 insertion

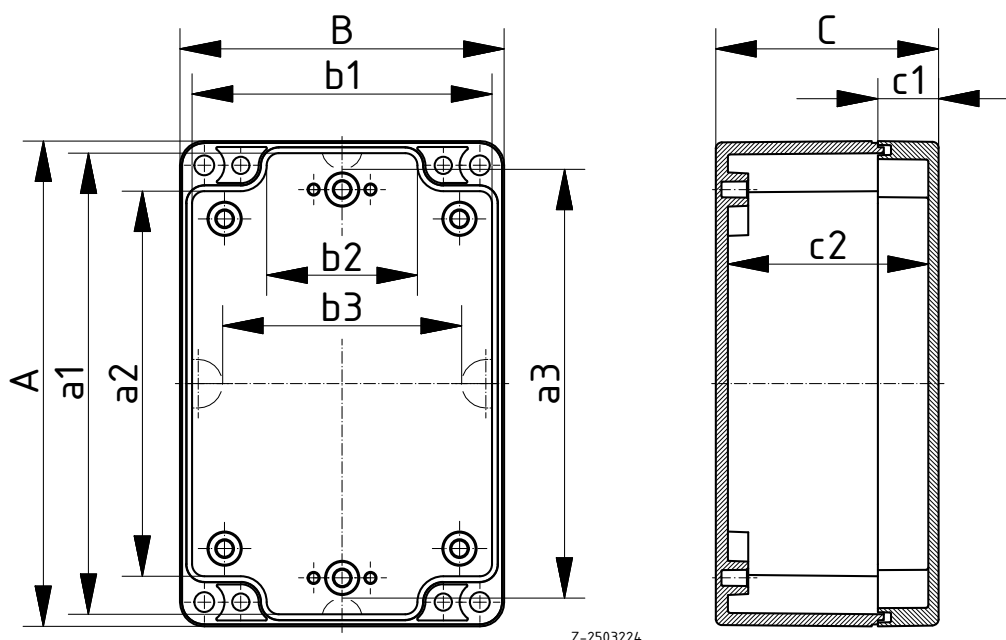
Euromas, Vestamid, with F05 opening, black, IP 65

Model	Order no.	A	B	C	Note
V 215 F05-PST	02215612	120	80	55	Euromas Vestamid enclosure with F05 insertion opening, with PST cut-out
V 215 F05-FG-PST	02215622	120	80	55	Euromas Vestamid enclosure with F05 insertion opening, with PST cut-out and window
V 215 F05-ZR	02215613	120	80	55	Euromas Vestamid enclosure with F05 insertion opening, with centring ring
V 215 F05-FG-ZR	02215623	120	80	55	Euromas Vestamid enclosure with F05 insertion opening, window and centring ring

Scope of delivery: Base, lid

Note: Please order Pg 13 plug-in cable gland for PST cut-out separately (order no. 12060407).
Design with crystal-clear lid (PC) and in enclosure material PC-light grey, similar to RAL 7035, available on request.

Important: As the installation of the adjusting axis including the adjusting axis seal only takes place during complete assembly of the enclosure, the manufacturer of the complete unit is responsible for ensuring compliance with protection class IP 65 acc. to DIN EN 60529 for this sealed point!
The enclosure manufacturer cannot accept any warranty in respect of this.



Z-2503224



Euromas-Polyester

These polyester enclosures
are ideal for use
in rough environments

- 27 sizes
- Listing under UL file no. E 196 706
- Lid screws made of V2A
- Optional silicone lid seal with increased temperature resistance (approx. 130°C)
- Terminals and mounting on request



Colour	Grey, similar to RAL 7000; special colours on request
Protection class	IP 66/DIN EN 60529, higher level of protection on request
Enclosure material	UP-GF 25-30 %, PU foamed seal; for details see Technical Information





Welcome to BOPLA City!

Maximum insertion with Phoenix modular terminals

	MBK 2.5	MBK 3	MBK 5	UK 3 N	UK 5 N	UK 10 N
DIN rail TS 15	x	x	x			
DIN rail TS 32				x	x	x
DIN rail TS 35				x	x	x
Bridgeable		x	x	x	x	x
End-angle piece	2	2	2	2	2	2
End plate	-	1	1	1	1	1
Conductor cross-section (mm ²) fine-strand	1.5	2.5	4	2.5	4	10
Conductor cross-section (mm ²) single-wire	2.5	4	4	4	6	16
Nominal voltage (V)	500	500	500	750	750	800
Current-carrying capacity (A)	26	32	34	34	34	76
Terminal width (mm)	5.2	5.2	6.2	5.2	6.2	10.2

Model	Number per DIN rail					
P 300						
P 305	7	7	6			
P 311	13	13	11			
P 316	23	23	19			
P 319	29	29	24			
P 322	36	36	30			
P 323						
P 324	13	13	11			
P 325	23	23	19			
P 326	7	7	6			
P 327	36	36	30			
P 329	28	28	24			
P 330				19	16	10
P 331				30	26	15
P 332				12	10	6
P 333				38	32	20
P 334				57	48	29
P 336				50	42	25
P 337				37	31	19
P 338				37	31	19
P 339				57	48	29
P 340				65	55	33
P 341				65	55	33
P 3412				65	55	33
P 342				104	57	53
P 345				96	80	49
P 355				65	55	33

Maximum insertion with Weidmüller modular terminals

	AKZ 1.5	AKZ 2.5	AKZ 4	SAK 2.5	SAK 4
DIN rail TS 15	x	x	x		
DIN rail TS 32				x	x
DIN rail TS 35					
Bridgeable	x	x	x	x	x
End-angle piece	2	2	2	2	2
End plate	1	1	1	1	1
Conductor cross-section (mm ²) fine-strand	1.5	2.5	4	2.5	4
Conductor cross-section (mm ²) single-wire	2.5	4	6	4	10
Nominal voltage (V)	400	250	500	800	800
Current-carrying capacity (A)	17.5	24	32	24	32
Terminal width (mm)	5	5	6	6	6.5

Model	Number per DIN rail				
P 300	1 x MK3/4 or 1 x BK4 terminal block				
P 305	6				
P 311	12				
P 316	22				
P 319	28				
P 322	36				
P 323	1 x MK3/4 or 1 x BK4 terminal block				
P 324	12	12	10		
P 325	22	22	18		
P 326	6	6	5		
P 327	36	36	30		
P 329	28	28	23		
P 330				16	15
P 331				26	24
P 332				10	9
P 333				33	31
P 334				50	46
P 336				43	40
P 337				32	30
P 338				31	30
P 339				50	46
P 340				56	52
P 341				56	52
P 3412				56	52
P 342				90	83
P 345				83	77
P 355				56	52



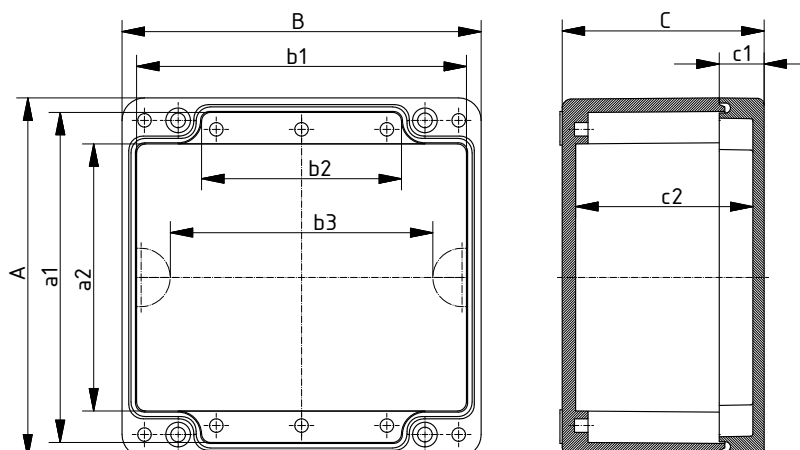
Euromas-Polyester

Euromas enclosure, polyester

Model	Order no.	A	B	C	a1	a2	b1	b2	b3	c1	c2
P 303	04303000	55	55	37,5	45,5	33,5	45,5	33,5		8	26
P 305	04305000	80	75	56,5	70	49	65	32		15	46
P 311	04311000	110	75	56,5	100	79	65	32		15	46
P 316	04316000	160	75	56,5	150	129	65	32		15	46
P 319	04319000	190	75	56,5	180	159	65	32		15	46
P 322	04322000	230	75	56,5	220	199	65	32	50,6	15	46
P 323	04323000	55	55	59	44,5	33,5	44,5	32,5		8	48
P 324	04324000	110	75	75,5	100	79	65	32		15	65
P 325	04325000	160	75	75,5	150	129	65	32		15	65
P 326	04326000	80	75	75,5	70	49	65	32		15	65
P 327	04327000	230	75	75,5	220	199	65	32	50,6	15	65
P 329	04329000	190	75	75,5	180	159	65	32		15	65
P 330	04330000	160	160	91	147	119	147	89		20	79
P 331	04331000	220	120	91	210	179	110	65		25	80
P 332	04332000	122	120	91	112	81	110	65		25	80
P 333	04333000	260	160	91	247	219	147	89		20	79
P 334	04334000	360	160	91	347	319	147	89		20	79
P 336	04336000	320	100	81	309	286	88	44		20	70
P 337	04337000	255	250	121	242	214	237	179		25	109
P 338	04338000	255	250	161	242	214	237	179		65	149
P 339	04339000	360	360	90,8	347	319	347	289		20	79
P 340	04340000	400	250	161	386	358	236	178		65	149
P 341	04341000	400	405	121	386	358	391	333		25	109
P 3412	04341200	400	405	201	384	356	389	331		25	189
P 342	04342000	600	250	121	586	558	236	178	208	25	109
P 345	04345000	560	160	91	547	519	147	89	119	20	79
P 355	04355000	400	250	121	386	358	236	178		25	109

Scope of delivery: Lid and base, lid screws made of V2A, earthing screw

Note: See following pages for accessories.



Z-2403295

Euromas-Polyester

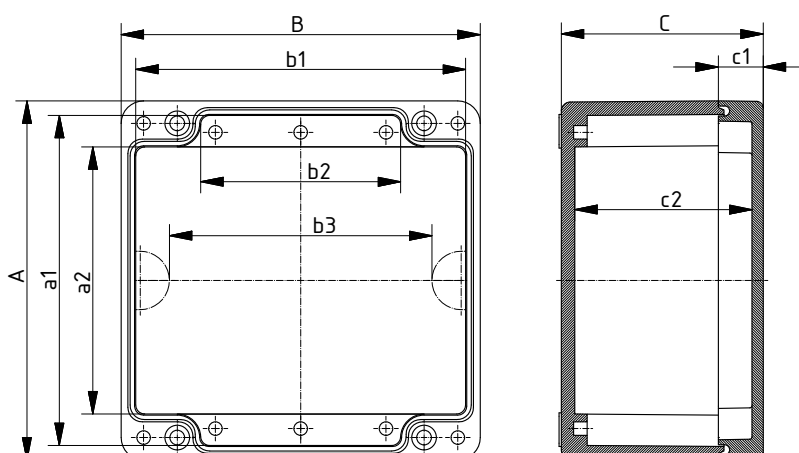


Euromas enclosure, polyester, with silicone lid seal

Model	Order no.	A	B	C	a1	a2	b1	b2	b3	c1	c2
P 305 SIL	04305100	80	75	56,5	70	49	65	32		15	46
P 311 SIL	04311100	110	75	56,5	100	79	65	32		15	46
P 316 SIL	04316100	160	75	56,5	150	129	65	32		15	46
P 319 SIL	04319100	190	75	56,5	180	159	65	32		15	46
P 322 SIL	04322100	230	75	56,5	220	199	65	32	50,6	15	46
P 324 SIL	04324100	110	75	75,5	100	79	65	32		15	65
P 325 SIL	04325100	160	75	75,5	150	129	65	32		15	65
P 326 SIL	04326100	80	75	75,5	70	49	65	32		15	65
P 327 SIL	04327100	230	75	75,5	220	199	65	32	50,6	15	65
P 329 SIL	04329100	190	75	75,5	180	159	65	32		15	65
P 330 SIL	04330100	160	160	91	147	119	147	89		20	79
P 331 SIL	04331100	220	120	91	210	179	110	65		25	80
P 332 SIL	04332100	122	120	91	112	81	110	65		25	80
P 333 SIL	04333100	260	160	91	247	219	147	89		20	79
P 334 SIL	04334100	360	160	91	347	319	147	89		20	79
P 336 SIL	04336100	320	100	81	309	286	88	44		20	70
P 337 SIL	04337100	255	250	121	242	214	237	179		25	109
P 338 SIL	04338100	255	250	161	242	214	237	179		65	149
P 339 SIL	04339100	360	360	90,8	347	319	347	289		20	79
P 340 SIL	04340100	400	250	161	386	358	236	178		65	149
P 341 SIL	04341100	400	405	121	386	358	391	333		25	109
P 3412 SIL	04341300	400	405	201	384	356	389	331		25	189
P 342 SIL	04342100	600	250	121	586	558	236	178	208	25	109
P 345 SIL	04345100	560	160	91	547	519	147	89	119	20	79
P 355 SIL	04355100	400	250	121	386	358	236	178		25	109

Scope of delivery: Lid and base, lid screws made of V2A, earthing screw

Note: See following pages for accessories.



Z-2403295

Euromas accessories



Mounting panels, laminated paper (P 305-329) or galvanised sheet steel (P 330-355)

Model	Order no.	Note
M	24000100	For P 305
M	24000200	For P 311, P 324
M	24000300	For P 316, P 325
M	24000400	For P 319, P 329
M	21001700	For A 125, P 330
M	21001500	For A 122-123, P 331
M	21001600	For A 119-120, P 332
M	21001800	For A 130, P 333
M	21001900	For A 135, P 334
M	24000430	For P 336
M	24000440	For P 337-338
M	24000450	For P 339
M	24000460	For P 340, P 355
M	24000470	For P 341, P 3412
M	24000500	For P 342
M	21002000	For A 138, P 345

Scope of delivery: 1 mounting panel



Capstan-headed screws, sealable

Model	Order no.	Note
KP	21007905	For P 303, P 323
KP	21007935	For P 305-322, P 324-329
KP	21007975	For A 195, P 330, P 333-336, P 339, P 345
KP	21007995	For A 120-121, A 123, A 126-127, A 131, P 331-332, P 337, P 341-342, P 355
KP	21008025	For P 338, P 340

Scope of delivery: 2 pieces



Allen cheese-head screw for lid

Model	Order no.	Note
IS	21007900	For P 303, P 323
IS	21007930	For P 305-319, P 324-326, P 329
IS	21007940	For P 322, P 327
IS	21007970	For A 195, P 330, P 333-336, P 339
IS	21007990	For A 120-121, A 123, A 126-127, A 131, P 331-332, P 337, P 341, P 3412, P 355
IS	21008020	For P 338, P 340
IS	21008000	For P 342
IS	21007980	For P 345

Scope of delivery: 4 pieces

Euromas accessories

Earthing bars with fitted terminal clamps

Model	Order no.	Note
E	21004800	For A 125, P 330
E	21004700	For A 122-123, P 331
E	21004600	For A 119-120, P 332
E	21004900	For A 130, P 333, P 337-338
E	21005000	For A 124, A 135, P 334, P 339
E	21005400	For A 168, A 170-190, P 340-341, P 3412, P 355
E	21005500	For A 169, P 342
E	21005100	For A 138, P 345

Scope of delivery: 1 earthing bar



Wall brackets, screw-on at rear

Model	Order no.	Note
WL	21004250	For A 114, A 116, A 118, P 305-322, P 324-329
WL	21004300	For A 119-198, P 330-355

Scope of delivery: 4 pieces



DIN rails DIN EN 60715 TH 15

Model	Order no.	Note
TS 15	21002800	For A 105, P 305, P 326, PK 105
TS 15	24003100	For P 311, P 324
TS 15	21003150	For A 118, P 316
TS 15	24003300	For A 106, P 319, P 329
TS 15	24003310	For P 322, P 327, P 331
TS 15	22002000	For M/T 219-220, M/T 231-235, M/T 238, M/T 246, P 325
TS 15	22001901	For P 330
TS 15	21003205	For A 119-120, P 332
TS 15	21003505	For A 130, P 333
TS 15	24003400	For P 336

Scope of delivery: 1 DIN rail



Euromas accessories



DIN rails DIN EN 60715 G 32

Model	Order no.	Note
TS 32	22001701	For M/T 210, M/T 225, P 305, P 326
TS 32	22002010	For M/T 219-220, M/T 231-235, M/T 238, M/T 246, P 316, P 325
TS 32	24003410	For P 319, P 329
TS 32	24003311	For P 322, P 327
TS 32	21003400	For A 125, P 330
TS 32	21003300	For A 122-123, P 331
TS 32	21003200	For A 119-120, P 332
TS 32	21003500	For A 130, P 333
TS 32	21003340	For A 124, A 135, P 334, P 339
TS 32	24003750	For P 337-338
TS 32	21004100	For A 168, A 170-190, P 340-341, P 3412, P 355
TS 32	21004150	For A 169, A 196-197, P 342
TS 32	21003700	For A 138, P 345

Scope of delivery: 1 DIN rail



DIN rails DIN EN 60715 TH 35

Model	Order no.	Note
TS 35	22001702	For M/T 210, M/T 225, P 305, P 326
TS 35	22002020	For M/T 219-220, M/T 231-235, M/T 238, M/T 246, P 316, P 325
TS 35	24003315	For P 319, P 329
TS 35	24003312	For P 322, P 327
TS 35	21003410	For A 125, P 330
TS 35	21003320	For A 122-123, P 331
TS 35	21003210	For A 119-120, P 332
TS 35	21003510	For A 130, P 333
TS 35	21003350	For A 124, A 135, P 334, P 339
TS 35	24003760	For P 337-338
TS 35	21004110	For A 168, A 170-190, P 340-341, P 3412, P 355
TS 35	21004160	For A 169, A 196-197, P 342
TS 35	21003710	For A 138, P 345

Scope of delivery: 1 DIN rail

Euromas accessories

Hinge set, diecast

Model	Order no.
SCHD	21007800

Scope of delivery: 1 hinge set

Note: Mechanical processing is required. Mounting on request.

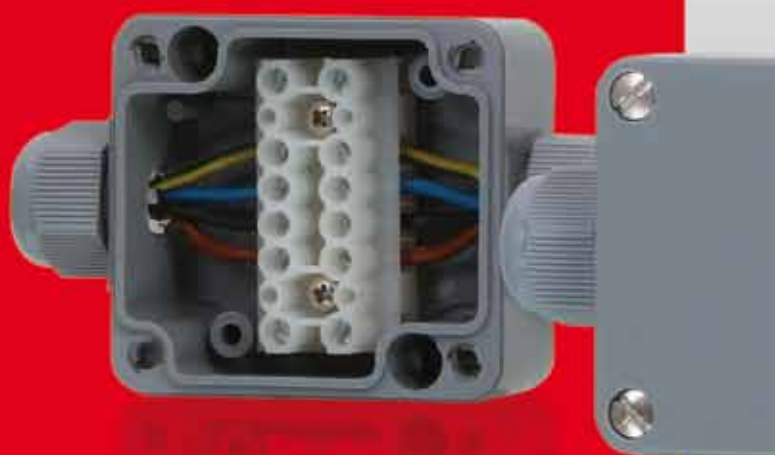




Euromas-Polymas

The versions of this sturdy polyamide enclosure with moulded-on Pg 11 cable gland reduce processing time and work

- 5 sizes
- Versions with or without different number of screws
- Quick-release fastener versions ex warehouse
- Transparent lids on request
- Terminals and mounting on request



Colour	Silver grey, similar to RAL 7001; special colours on request
Protection class	IP 65/DIN EN 60529, higher ingress protection on request
Enclosure material	PA 6-GB 30, seal made of CR





Welcome to BOPLA City!



PK 101/102/105/110/115: without moulded-on cable gland
Pg 11



PK 101-111: one moulded-on cable gland
Pg 11



PK 101-211: two moulded-on cable glands
Pg 11



PK 102-211: two moulded-on cable glands
Pg 11



PK 102-411: four moulded-on cable glands
Pg 11

SV version with quick-release fastener, G-version with crystal-clear lid on request.
The tension range for moulded-on cable glands is 8-10 mm.



Euromas-Polymas

Polymas enclosure

Model	Order no.	A	B	C	a1	a2	b1	b2	c1	c2
PK 101	38101000	58	64	34	51,4	34	57,4	24	9	28,5
PK 101 G	38101020*	58	64	34	51,4	34	57,4	24	9	28,5
PK 102	38102000	98	64	34	91,4	74	57,4	24	9	28,5
PK 102 G	38102020*	98	64	34	91,4	74	57,4	24	9	28,5
PK 105	38105000	75	80	57	66,6	50,6	71,6	39,6	15	51
PK 105 G	38105020*	75	80	57	66,6	50,6	71,6	39,6	15	51
PK 110	38110000	125	80	57	116,6	100,6	71,6	39,6	15	51
PK 110 G	38110020*	125	80	57	116,6	100,6	71,6	39,6	15	51
PK 115	38115000	175	80	57	166,6	150,6	71,6	39,6	15	51
PK 115 G	38115020*	175	80	57	166,6	150,6	71,6	39,6	15	51

Scope of delivery: Lid and base, lid screws made of V2A

Note: * = Available on request. G = Crystal-clear lid.

Accessories: See following pages.



Polymas enclosure with quick-release fastener

Model	Order no.	A	B	C	a1	a2	b1	b2	c1	c2
PK 101 SV	38101500*	58	64	34	51,4	34	57,4	24	9	28,5
PK 102 SV	38102500*	98	64	34	91,4	74	57,4	24	9	28,5
PK 105 SV	38105500*	75	80	57	66,6	50,6	71,6	39,6	15	51
PK 110 SV	38110500*	125	80	57	116,6	100,6	71,6	39,6	15	51
PK 115 SV	38115500*	175	80	57	166,6	150,6	71,6	39,6	15	51

Scope of delivery: Lid and base, quick-release fastener made of nickel-plated GD-Zn Al4 Cu1

Note: * = Available on request.

Accessories: See following pages.



Euromas-Polymas

Polymas enclosure with a moulded-on Pg 11

Model	Order no.	A	B	C	a1	a2	b1	b2	b4	c1	c2
PK 101-111	38101100	58	64	34	51,4	34	57,4	24	1	9	28,5
PK 101-111 G	38101120*	58	64	34	51,4	34	57,4	24	1	9	28,5

Scope of delivery: Lid and base, lid screws made of V2A, 1 moulded-on cable gland, Pg 11 including clamping cage, pressure screw and continuous sealing ring

Note: * = Available on request. G = Crystal-clear lid.
Accessories: See following pages.



Polymas enclosure with quick-release fastener and a moulded-on Pg 11

Model	Order no.	A	B	C	a1	a2	b1	b2	b4	c1	c2
PK 101-111 SV	38101600	58	64	34	51,4	34	57,4	24	1	9	28,5

Scope of delivery: Lid and base, quick-release fastener made of nickel-plated GD-Zn Al4 Cu1, 1 moulded-on cable gland, Pg 11 including clamping cage, pressure screw and continuous sealing ring

Note: See following pages for accessories.

Euromas-Polymas



Polymas enclosure with 2 moulded-on Pg 11

Model	Order no.	A	B	C	a1	a2	b1	b2	b3	b4	c1	c2
PK 101-211	38101200	58	64	34	51,4	34	57,4	24	1	1	9	28,5
PK 101-211 G	38101220*	58	64	34	51,4	34	57,4	24	1	1	9	28,5
PK 102-211	38102200	98	64	34	91,4	74	57,4	24		2	9	28,5
PK 102-211 G	38102220*	98	64	34	91,4	74	57,4	24		2	9	28,5

Scope of delivery: Lid and base, lid screws made of V2A, 2 moulded-on cable glands, Pg 11 including clamping cage, pressure screw and continuous sealing ring

Note: * = Available on request. G = Crystal-clear lid.

Accessories: See following pages.

Note arrangement of cable glands (see photos at start of chapter).



Polymas enclosure with quick-release fastener and 2 moulded-on Pg 11

Model	Order no.	A	B	C	a1	a2	b1	b2	b3	b4	c1	c2
PK 101-211 SV	38101700	58	64	34	51,4	34	57,4	24	1	1	9	28,5
PK 102-211 SV	38102700	98	64	34	91,4	74	57,4	24		2	9	28,5

Scope of delivery: Lid and base, quick-release fastener made of nickel-plated GD-Zn Al4 Cu1, 2 moulded-on cable glands, Pg 11 including clamping cage, pressure screw and continuous sealing ring

Note: See following pages for accessories.

Note arrangement of cable glands (see photos at start of chapter).



Euromas-Polymas

Polymas enclosure with quick-release fastener and 4 moulded-on Pg 11

Model	Order no.	A	B	C	a1	a2	b1	b2	b3	b4	c1	c2
PK 102-411	38102400	98	64	34	91,4	74	57,4	24	2	2	9	28,5
PK 102-411 G	38102420*	98	64	34	91,4	74	57,4	24	2	2	9	28,5

Scope of delivery: Lid and base, lid screws made of V2A, 4 moulded-on cable glands, Pg 11 including clamping cage, pressure screw and continuous sealing ring

Note: * = Available on request. G = Crystal-clear lid.
Accessories: See following pages.

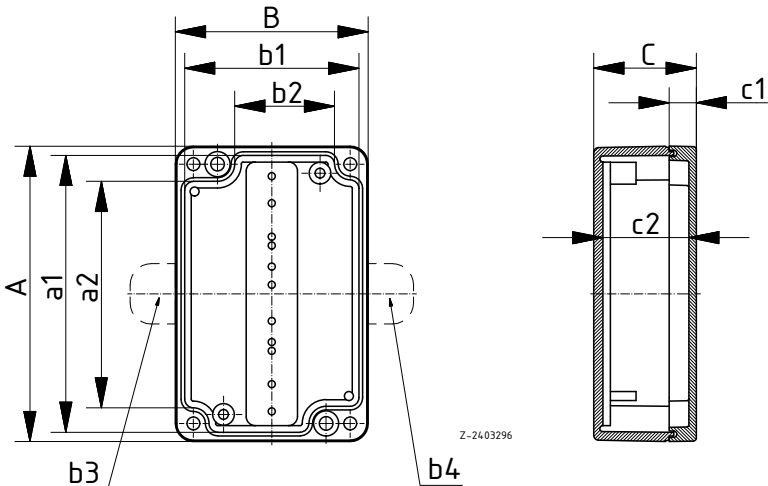


Polymas enclosure with quick-release fastener and 4 moulded-on Pg 11

Model	Order no.	A	B	C	a1	a2	b1	b2	b3	b4	c1	c2
PK 102-411 SV	38102900	98	64	34	91,4	74	57,4	24	2	2	9	28,5

Scope of delivery: Lid and base, quick-release fastener made of nickel-plated GD-Zn Al4 Cu1, 4 moulded-on cable glands, Pg 11 including clamping cage, pressure screw and continuous sealing ring

Note: See following pages for accessories.



Euromas accessories

Silicone seal for lid

Model	Order no.	Note
Si	21005700	For PK 101, PK 101-111, PK 101-211
Si	21005800	For PK 102, PK 102-211, PK 102-411
Si	21006000	For PK 105
Si	21006100	For PK 110
Si	21006200	For PK 115

Scope of delivery: 1 m silicone lid seal



Mounting panels for PK 105 – 115, galvanised sheet steel

Model	Order no.	Note
M	21001100	For A 105, PK 105
M	21001200	For A 110, PK 110
M	21001300	For A 115, PK 115

Scope of delivery: 1 mounting panel



DIN rails for PK 105 – 115, DIN EN 60715 TH 15

Model	Order no.	Note
TS 15	21002800	For A 105, P 305, P 326, PK 105
TS 15	21002900	For A 110, PK 110
TS 15	21003000	For A 115, PK 115

Scope of delivery: 1 DIN rail





Intertego

Elegant design and flexible construction are the main features of this metal enclosure

- 2 heights
- Length and width are individually adjustable
- 18 standard dimensions ex warehouse
- Aluminium baseplates and top covers
- Good EMC characteristics as standard
- Higher shielding values possible with accessories
- Installation of 19" components possible
- For use as 19" chassis
- Comprehensive range of accessories



Colour	Graphite grey, similar to RAL 7024; special colours on request
Protection class	IP 40/DIN EN 60529; with ventilation (ADL) IP 20/DIN EN 60529
Enclosure material	Profiles: Al Mg Si 0.5; diecast corners: zinc alloy Z410; seal: TPE. For details see Technical Information.

The possible design versions and the wide range of accessories ensure that Intertego can be adapted to satisfy very many requirements.

In addition, the profile design allows the production of special sizes in a very short period of time. Shielding of the enclosure is good in the basic version, and can be optimised in stages by the use of special EMC components. A selection of test diagrams is available on our website www.BOPLA.de. We will be happy to provide you with documentation regarding past EMC tests on possible EMC procedures. Intertego is also suitable for use as a 19" enclosure. The 19" accessories which are required are included in our Interzoll and Interzoll-Modul product ranges. Installation in a 19" cabinet is possible with the special 19" flange plate.





Enclosure 2 U IT 10...



Enclosure 3 U IT 15...



19" designs



Subrack flange panel FLP for special enclosure width 80 HP



Wall fitting IT...WB



Wall angle WW



Tower foot IT...T



Tip-up foot AF1



Unit foot GF



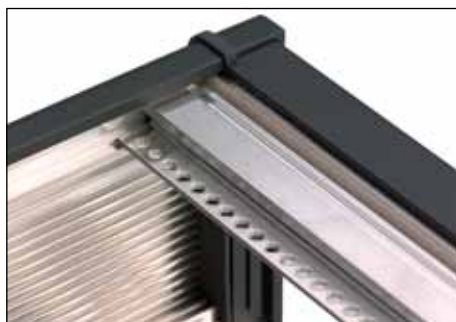
Handle HS...



Handle shell GRS



EMC textile seal IT-EMV 1, mounted on the profile side panel for EMC cover plates



EMC textile seal IT-EMV 1, mounted on front profile for EMC cover plates



EMC corner seal set IT-EMV 2/3 for EMC sealing of the enclosure corner (side panel/front section)



EMC spring FP/M for EMC part front panels



EMC round cord for EMC front panels

Intertego 2 U

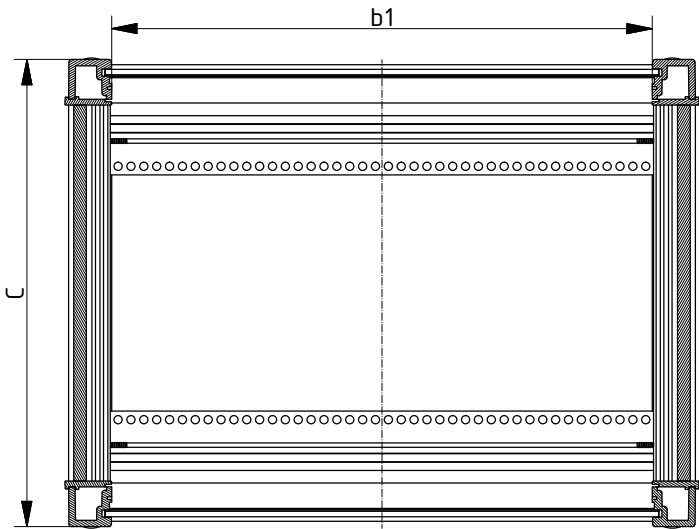
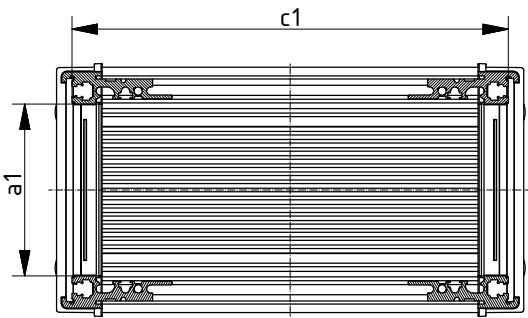
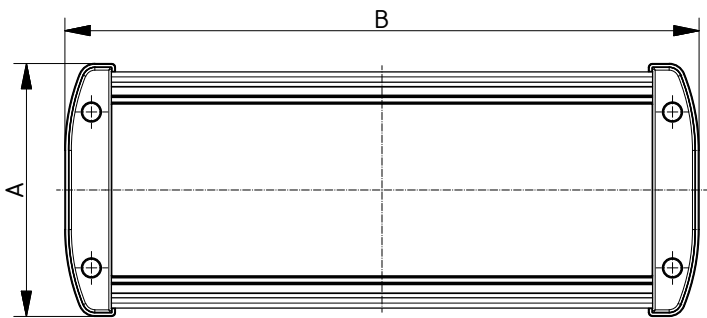


Enclosure profile sets, 2 U

Model	Order no.	A	B	C	a1	b1	c1	Note
IT 102520	95102520	99,85	250,36	184,4	213,36	172,2	172,2	42 HP
IT 102525	95102525	99,85	250,36	244,4	67,85	213,36	232,2	42 HP
IT 102530	95102530	99,85	250,36	304,4	67,85	213,36	292,2	42 HP
IT 103520	95103520	99,85	184,4	99,85	67,85	320,04	172,2	63 HP
IT 103525	95103525	99,85	357,04	244,4	67,85	320,04	232,2	63 HP
IT 103530	95103530	99,85	357,04	304,4	67,85	320,04	292,2	63 HP
IT 104520	95104520	99,85	463,72	184,4	67,85	426,72	172,2	84 HP
IT 104525	95104525	99,85	463,72	244,4	67,85	426,72	232,2	84 HP
IT 104530	95104530	99,85	463,72	304,4	67,85	426,72	292,2	84 HP

Scope of delivery: 2 side profiles, 4 front profiles, 4 diecast corners, 4 decor elements, dark grey, mounting material

Note: Special sizes on request. See following pages for accessories.



Z-2803297

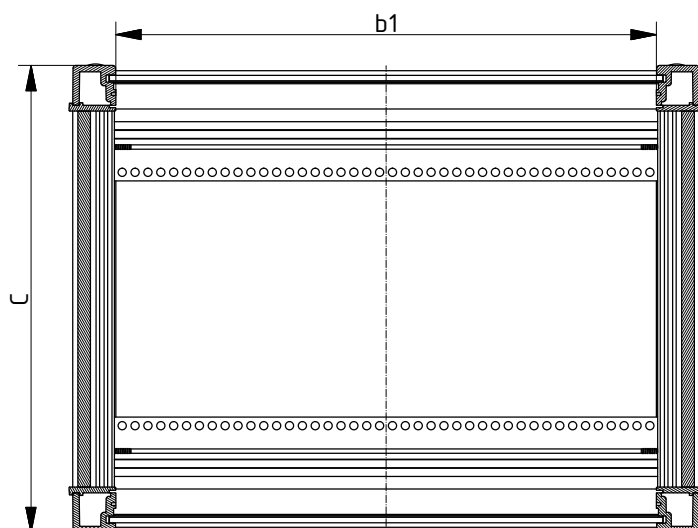
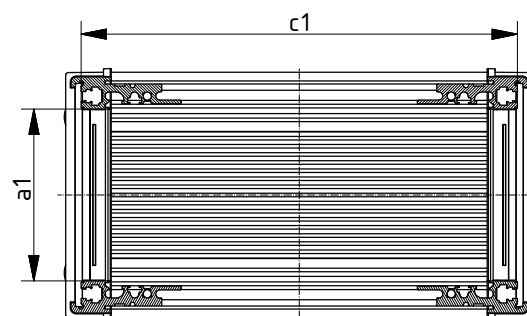
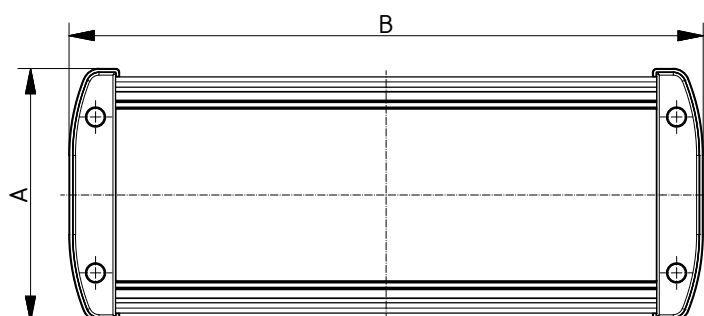
Intertego 3 U

Enclosure profile sets 3U

Model	Order no.	A	B	C	a1	b1	c1	Note
IT 152520	95152520	144,3	250,36	184,4	112,3	213,36	172,2	42 HP
IT 152525	95152525	144,3	250,36	244,4	112,3	213,36	232,2	42 HP
IT 152530	95152530	144,3	250,36	304,4	112,3	213,36	292,2	42 HP
IT 153520	95153520	144,3	357,04	184,4	112,3	320,04	172,2	63 HP
IT 153525	95153525	144,3	357,04	244,4	112,3	320,04	232,2	63 HP
IT 153530	95153530	144,3	357,04	304,4	112,3	320,04	292,2	63 HP
IT 154520	95154520	144,3	463,72	184,4	112,3	426,72	172,2	84 HP
IT 154525	95154525	144,3	463,72	244,4	112,3	426,72	232,2	84 HP
IT 154530	95154530	144,3	463,72	304,4	112,3	426,72	292,2	84 HP

Scope of delivery: 2 side profiles, 4 front profiles, 4 diecast corners, 4 decor elements, dark grey, mounting material

Note: Special sizes on request. See following pages for accessories.



Z-2803297

Intertego accessories



Decor strips

Model	Order no.	Colour	Note
IT 000020 DS-dunkelgrau	95011120	Dark grey	For IT....20
IT 000020 DS-rot	95011220	Red	For IT....20
IT 000020 DS-grün	95011320	Green	For IT....20
IT 000020 DS-orange	95011420	Orange	For IT....20
IT 000020 DS-blau	95011520	Blue	For IT....20
IT 000025 DS-dunkelgrau	95011125	Dark grey	For IT....25
IT 000025 DS-rot	95011225	Red	For IT....25
IT 000025 DS-grün	95011325	Green	For IT....25
IT 000025 DS-orange	95011425	Orange	For IT....25
IT 000025 DS-blau	95011525	Blue	For IT....25
IT 000030 DS-dunkelgrau	95011130	Dark grey	For IT....30
IT 000030 DS-rot	95011230	Red	For IT....30
IT 000030 DS-grün	95011330	Green	For IT....30
IT 000030 DS-orange	95011430	Orange	For IT....30
IT 000030 DS-blau	95011530	Blue	For IT....30

Scope of delivery: 4 decor strips (for 1 enclosure)

Note: Mounting in the side system grooves. Special lengths on request. Individually printed decor foils can be used as an alternative.



Decor elements

Model	Order no.	Colour	Note
IT 100000 DE-rot	95102201	Red	For IT 10....
IT 100000 DE-grün	95102301	Green	For IT 10....
IT 100000 DE-orange	95102401	Orange	For IT 10....
IT 100000 DE-blau	95102501	Blue	For IT 10....
IT 150000 DE-rot	95152201	Red	For IT 15....
IT 150000 DE-grün	95152301	Green	For IT 15....
IT 150000 DE-orange	95152401	Orange	For IT 15....
IT 150000 DE-blau	95152501	Blue	For IT 15....

Scope of delivery: 4 decor elements (for 1 enclosure)

Note: Can be used as an alternative to the decor elements included in the IT... standard scope of delivery.



Plain cover plates, graphite grey aluminium, powder-coated

Model	Order no.	Note
IT 002520 AD-7024	95012520	For IT ..2520
IT 002525 AD-7024	95012525	For IT ..2525
IT 002530 AD-7024	95012530	For IT ..2530
IT 003520 AD-7024	95013520	For IT ..3520
IT 003525 AD-7024	95013525	For IT ..3525
IT 003530 AD-7024	95013530	For IT ..3530
IT 004520 AD-7024	95014520	For IT ..4520
IT 004525 AD-7024	95014525	For IT ..4525
IT 004530 AD-7024	95014530	For IT ..4530

Scope of delivery: 1 cover plate

Note: Special sizes on request.

Intertego accessories

Plain cover plates, natural-coloured anodised aluminium

Model	Order no.	Note
IT 002520 AD-EQ	95022520	For IT ..2520
IT 002525 AD-EQ	95022525	For IT ..2525
IT 002530 AD-EQ	95022530	For IT ..2530
IT 003520 AD-EQ	95023520	For IT ..3520
IT 003525 AD-EQ	95023525	For IT ..3525
IT 003530 AD-EQ	95023530	For IT ..3530
IT 004520 AD-EQ	95024520	For IT ..4520
IT 004525 AD-EQ	95024525	For IT ..4525
IT 004530 AD-EQ	95024530	For IT ..4530

Scope of delivery: 1 cover plate

Note: Special sizes on request.



Cover plates with ventilation, graphite grey aluminium, powder-coated

Model	Order no.	Note
IT 002520 ADL-7024	95032520	For IT ..2520
IT 002525 ADL-7024	95032525	For IT ..2525
IT 002530 ADL-7024	95032530	For IT ..2530
IT 003520 ADL-7024	95033520	For IT ..3520
IT 003525 ADL-7024	95033525	For IT ..3525
IT 003530 ADL-7024	95033530	For IT ..3530
IT 004520 ADL-7024	95034520	For IT ..4520
IT 004525 ADL-7024	95034525	For IT ..4525
IT 004530 ADL-7024	95034530	For IT ..4530

Scope of delivery: 1 cover plate

Note: Special sizes on request.



Cover plates with ventilation, natural-coloured anodised aluminium

Model	Order no.	Note
IT 002520 ADL-EQ	95042520	For IT ..2520
IT 002525 ADL-EQ	95042525	For IT ..2525
IT 002530 ADL-EQ	95042530	For IT ..2530
IT 003520 ADL-EQ	95043520	For IT ..3520
IT 003525 ADL-EQ	95043525	For IT ..3525
IT 003530 ADL-EQ	95043530	For IT ..3530
IT 004520 ADL-EQ	95044520	For IT ..4520
IT 004525 ADL-EQ	95044525	For IT ..4525
IT 004530 ADL-EQ	95044530	For IT ..4530

Scope of delivery: 1 cover plate

Note: Special sizes on request.



Intertego accessories



Front panels, natural-coloured anodised aluminium, plug-in

Model	Order no.	Note
IT 102500 FP	95104025	For IT 1025..
IT 103500 FP	95104035	For IT 1035..
IT 104500 FP	95104045	For IT 1045..
IT 152500 FP	95154025	For IT 1525..
IT 153500 FP	95154035	For IT 1535..
IT 154500 FP	95154045	For IT 1545..

Scope of delivery: 1 front panel

Note: Special sizes on request.



Part front panels, natural-coloured anodised aluminium and colour-passivated on rear, screw-on

Model	Order no.	Note
TF/M 242	86842023	2 U, 42 HP
TF/M 263	86863023	2 U, 63 HP
TF/M 284	86884023	2 U, 84 HP
TF/M 342	86842033	3 U, 42 HP
TF/M 363	86863033	3 U, 63 HP
TF/M 384	86884033	3 U, 84 HP

Scope of delivery: 1 front panel

Note: Special sizes on request. Screw holders and collar screws as accessories.



Tapped strips for the vertical groove, for screwing the TF/M onto the front profile

Model	Order no.	Note
GS 00042-I	54000421	42 HP
GS 00063-I	54000631	63 HP
GS 00084-I	54000841	84 HP

Scope of delivery: 2 tapped strips

Note: Special lengths on request.

Tapped strips for the horizontal groove for screwing components onto the front profile

Model	Order no.	Note
GS 00042-II	54000422	42 HP
GS 00063-II	54000632	63 HP
GS 00084-II	54000842	84 HP

Scope of delivery: 2 tapped strips

Note: Special lengths on request.

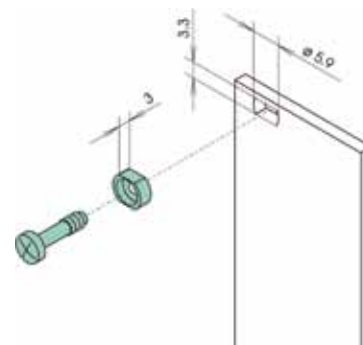
Intertego accessories

Collar screws and screw holders for front panels TF/M

Model	Order no.	Note
ISH/M 19	86080510	Plastic screwholder, PA 6, grey
ISHM/M 19	86080500	Metal screwholder, nickel-plated steel
BFS/M 1600	86000160	SHR Z M 2.5x12.3x6.5-SP, nickel-plated steel, for front panels, recessed head screws
BFS/M 1700	86000170	SHR Z M 2.5x12.3x6.5-SP, nickel-plated steel, for front panels, torx 8
BFS/M 2200	86000220	SHR R M 2.5x12.3x6.5-SPx18.3, nickel-plated steel, for front panels
IRS 19	54700420	Collar screws SHR R M2.5x11.3x6.3-SP (slotted knurled screw)

Scope of delivery: 20 collar screws / screw holders

Note: Metal screw holder ISHM/M for conductive contacting for riveting to the front panel. Mounting on request.



Flange panel, natural-coloured anodised aluminium, for fitting an enclosure (80 HP useful width) in a 19" cabinet

Model	Order no.	Note
IT 10 FLP	95005280	For IT 10...., space requirement 3 U
IT 15 FLP	95005380	For IT 15...., space requirement 4 U

Scope of delivery: 1 flange panel

Note: Mounting between side panel and diecast corner instead of the decor elements. 80 HP enclosure on request.



Wall fitting, graphite grey aluminium, powder-coated

Model	Order no.	Note
IT 000020 WB	95005020	For IT....20
IT 000025 WB	95005025	For IT....25
IT 000030 WB	95005030	For IT....30

Scope of delivery: 2 wall fittings, 4 covers, dark grey

Note: The screw holes can be covered by using decor strips DS... . Special lengths on request. Coloured covers can also be used.



Coloured covers for wall mounting

Model	Order no.	Colour	Note
AS 0030 AK-WB-rot	94785000	Red	For AS 0030-...WB-...
AS 0030 AK-WB-grün	94783000	Green	For AS 0030-...WB-...
AS 0030 AK-WB-orange	94786000	Orange	For AS 0030-...WB-...
AS 0030 AK-WB-blau	94784000	Blue	For AS 0030-...WB-...

Scope of delivery: 4 covers



Intertego accessories



Wall angle for fitting on front of enclosure, graphite grey sheet steel, powder-coated

Model	Order no.	Note
IT 10 WW	95005200	For IT 10...
IT 15 WW	95005300	For IT 15...

Scope of delivery: 2 wall angles

Note: Mounting between side panel and diecast corner instead of the decor elements.



Tower foot, graphite grey aluminium, powder-coated

Model	Order no.	Note
IT 000020 T	95006020	For IT....20
IT 000025 T	95006025	For IT....25
IT 000030 T	95006030	For IT....30

Scope of delivery: 2 tower feet, 4 rubber feet

Note: Special lengths on request.



Collapsible tip-up feet

Model	Order no.
AF1/INS	86050000

Scope of delivery: 4 tip-up feet

Note: Mechanical processing of the cover plates for mounting of the feet on request.



Unit feet

Model	Order no.
IT GF	95006000

Scope of delivery: 4 unit feet

Note: Mechanical processing of the cover plates for mounting of the feet on request.

Intertego accessories

Handles / Tip-up bows for IT 15...

Model	Order no.	Note
IT 002500 HS1	95007325	For IT 1525..
IT 003500 HS1	95007335	For IT 1535..
IT 004500 HS1	95007345	For IT 1545..

Scope of delivery: 1 handle including fixing material

Note: Mechanical processing of the side profiles for mounting of the handles on request.



Handles / Tip-up bows for IT 10...

Model	Order no.	Note
IT 002500 HS2	95007225	For IT 1025..
IT 003500 HS2	95007235	For IT 1035..
IT 004500 HS2	95007245	For IT 1045..

Scope of delivery: 1 handle including fixing material

Note: Mechanical processing of the side profiles for mounting of the handles on request.



Handle shells, black plastic

Model	Order no.
IT-GRS	95007100

Scope of delivery: 2 handle shells

Note: Mechanical processing of the side profiles for mounting of the handle shells on request.



Intertego EMC accessories



EMC textile seal, self-adhesive, for mounting on front and side profiles for conductive connections between profiles and EMC cover plate

Model	Order no.	
IT-EMV 1	95112000	
Scope of delivery: 8 seals, length 425 mm		



EMC corner seal set for mounting on the diecast corners to create conductive connections between the side profiles and the front area

Model	Order no.	Note
IT-EMV 2	95110001	For IT 10...
IT-EMV 3	95160001	For IT 15...
Scope of delivery: 4 EMC corner seals		



EMC spring, for mounting on front profiles for conductive connections between front profiles and screw-on EMC part front panels

Model	Order no.	
EMV-Feder-FP/M 42TE	86001142	
EMV-Feder-FP/M 63TE	86001163	
EMV-Feder-FP/M 84TE	86001184	
Scope of delivery: 10 EMC springs		



EMC round cord seal, for mounting in front profiles for conductive connections between profiles and plug-in EMC front panels.

Note: Available on request – mounting takes place in factory.

Intertego EMC accessories

Plain EMC cover plates, aluminium, visible area graphite grey, powder-coated

Model	Order no.	Note
IT 002520 AD-7024-EMV	95052520	For IT ..2520
IT 002525 AD-7024-EMV	95052525	For IT ..2525
IT 002530 AD-7024-EMV	95052530	For IT ..2530
IT 003520 AD-7024-EMV	95053520	For IT ..3520
IT 003525 AD-7024-EMV	95053525	For IT ..3525
IT 003530 AD-7024-EMV	95053530	For IT ..3530
IT 004520 AD-7024-EMV	95054520	For IT ..4520
IT 004525 AD-7024-EMV	95054525	For IT ..4525
IT 004530 AD-7024-EMV	95054530	For IT ..4530

Scope of delivery: 1 cover plate

Note: Cover plates with side contact lugs, uncoated, for IT-EMV 1. Special sizes on request.



EMC cover plates with ventilation, aluminium, visible area in graphite grey, powder-coated

Model	Order no.	Note
IT 002520 ADL-7024-EMV	95062520	For IT ..2520
IT 002525 ADL-7024-EMV	95062525	For IT ..2525
IT 002530 ADL-7024-EMV	95062530	For IT ..2530
IT 003520 ADL-7024-EMV	95063520	For IT ..3520
IT 003525 ADL-7024-EMV	95063525	For IT ..3525
IT 003530 ADL-7024-EMV	95063530	For IT ..3530
IT 004520 ADL-7024-EMV	95064520	For IT ..4520
IT 004525 ADL-7024-EMV	95064525	For IT ..4525
IT 004530 ADL-7024-EMV	95064530	For IT ..4530

Scope of delivery: 1 cover plate

Note: Cover plates with side contact lugs, uncoated, for IT-EMV 1. Special sizes on request.



EMC front panels, natural-coloured anodised aluminium on front, colour-passivated on rear, plug-in

Model	Order no.	Note
IT 102500 FP-EMV	95114025	For IT 1025..
IT 103500 FP-EMV	95114035	For IT 1035..
IT 104500 FP-EMV	95114045	For IT 1045..
IT 152500 FP-EMV	95164025	For IT 1525..
IT 153500 FP-EMV	95164035	For IT 1535..
IT 154500 FP-EMV	95164045	For IT 1545..

Scope of delivery: 1 front panel

Note: Special sizes on request.



Intertego EMC accessories



Part front panels, natural-coloured anodised aluminium, colour-passivated on rear, screw-on and with side slits for EMC spring FP/M

Model	Order no.	Note
TF/M 242-EMV	86842024	2 U, 42 HP
TF/M 263-EMV	86863024	2 U, 63 HP
TF/M 284-EMV	86884024	2 U, 84 HP
TF/M 342-EMV	86842034	3 U, 42 HP
TF/M 363-EMV	86863034	3 U, 63 HP
TF/M 384-EMV	86884034	3 U, 84 HP

Scope of delivery: 1 front panel

Note: Matching screw holders and collar screws in accessories.



EMC springs for mounting on EMC part front panels, screw-on with side slits / assembly tool

Model	Order no.	Note
EMV-Feder-FP/M 2HE	86001002	2 U
EMV-Feder-FP/M 3HE	86001003	3 U
MWZ/M-II	86001202	Assembly tool

Scope of delivery: 10 EMC springs or 1 assembly tool

Note: Can be mounted on TF/M...-EMV.

Intertego 19" profiles

Bus profiles, natural-coloured anodised aluminium, for fitting of standard backplanes

Model	Order no.	Note
ITPB 002500	95300025	For IT ..25..
ITPB 003500	95300035	For IT ..35..
ITPB 004500	95300045	For IT ..45..

Scope of delivery: 2 profiles including mounting material

Note: Mechanical processing of the side profiles in accordance with the depth of the circuit board is required before the profiles are fitted. EMC cover plates must be cut off in the area of the lateral contact lugs in accordance with the mounting position. Special lengths on request.

Card guides, part front panels and additional 19" components are contained in the Interzoll Modul / Interzoll accessories chapter.



Rear profiles, natural-coloured anodised aluminium, with integrated Z-rail for connectors acc. to DIN EN 60603-2 (formerly DIN 41612)

Model	Order no.	Note
ITPR 002500	95302500	For IT ..25..
ITPR 003500	95303500	For IT ..35..
ITPR 004500	95304500	For IT ..45..

Scope of delivery: 2 profiles including mounting material

Note: Mechanical processing of the side profiles in accordance with the depth of the circuit board is required before the profiles are fitted. EMC cover plates must be cut off in the area of the lateral contact lugs in accordance with the mounting position. Special lengths on request.

Card guides, part front panels and additional 19" components are contained in the Interzoll Modul / Interzoll accessories chapter.



Snap profiles, natural-coloured anodised aluminium, for holding the card guides

Model	Order no.	Note
ITRP 002500	95400025	For IT ..25..
ITRP 003500	95400035	For IT ..35..
ITRP 004500	95400045	For IT ..45..

Scope of delivery: 2 profiles including mounting material

Note: Mechanical processing of the side profiles in accordance with the depth of the circuit board is required before the profiles are fitted. EMC cover plates must be cut off in the area of the lateral contact lugs in accordance with the mounting position. Special lengths on request.

Card guides, part front panels and additional 19" components are contained in the Interzoll Modul / Interzoll accessories chapter.





Internorm Stil / Interzoll Plus

The special feature of this series of enclosures is its use as a desktop enclosure or as a 19" chassis

- 2 heights
- 3 widths
- 5 depths
- With or without integrated ventilation
- Tower enclosure in 2 sizes
- Internorm Stil is based on the Interzoll-Modul subrack programme
- Interzoll Plus is based on the Interzoll subrack programme
- Accessories and supplementary components can be found in the relevant subrack sections

The enclosures are subject to a standard which relates to the modular series of subracks for electronic devices – 482.6 mm (i.e. 19 inch) construction. Standard details can be found in the technical information.

Internorm Stil: The internal and external dimensions, earth conductor connections and EMC tests are standardised. Standard sizes are 3 and 6 rack units (U); 42, 63 and 84 horizontal pitches (HP); 235, 295, 355, 415 and 475 mm depths. Can be expanded by means of additional profiles for backplane technology (.Pi version), for directly screw-on connectors (.12 version), plug-in units and plug-in units with insertion and withdrawal function. The extensions are subject to 19" standardisation. The enclosures are suitable for Compact PCI and VME 64x applications. In its standard version, the Internorm Stil enclosure is equipped with good electromagnetic shielding, and can be upgraded by the use of



Colour	Internorm Stil: white aluminium, similar to RAL 9006 and anthracite grey, similar to RAL 7016 Interzoll Plus: light grey, similar to RAL 7035, natural-coloured anodised aluminium, special colours on request
Protection class	IP 20/DIN EN 60529
Enclosure material	Internorm Stil: Profiles: Al Mg Si 0.5, anodised. Covers: diecast zinc. Front handles/flanges: diecast aluminium. Side panels, cover and side plates: passivated aluminium. Interzoll Plus: Profiles: Al Mg Si 0.5, anodised. Cover plates: steel sheet. Plastic covers: ABS-M/MIA / PVC UL 94 V1; for details see Technical Information

additional EMC components. We recommend the ventilated enclosure if electronic components generate high temperatures. The ventilation holes are incorporated in the front with cover plates. This means that in each case, 1/2 U of additional installation height up and down is required. Ventilation processes can be optimised by the use of accessory components such as air filters and partitions. Technical details e.g. earth conductor connections, toothing under the screw head and torx screw drives ensure a high level of standardisation of the products.

Interzoll Plus: The internal and external dimensions are standardised. Standard sizes are 3 rack units (U); 42, 63 and 84 horizontal pitches (HP); 180, 240, 300 and 360 mm depths. Can be expanded by the use of additional profiles for backplane technology (.Pi version), for directly screw-on connectors (.12 version) and plug-in units. The expansions are subject to 19" standardisation.

All profiles for bus and connector technology can be displaced in height by 10 mm (IZP) or 15 mm (INS). Details of profiles and other accessories can be found in Interzoll accessories (IZP) or Interzoll Modul accessories (INS).

Special dimensions, modifications and complete assembly on request.



Internorm Stil



Enclosures without ventilation, 3 U

Model	Order no.	A	B	C	a1	b1	c1	Note
INS 24340	85024341	132,55	235,54	255,5	112,35	213,94	235,5	42 HP
INS 24360	85024361	132,55	342,02	255,5	112,35	320,62	235,5	63 HP
INS 24380	85024381	132,55	448,7	255,5	112,35	427,3	235,5	84 HP
INS 30340	85030341	132,55	235,54	315,5	112,35	213,94	295,5	42 HP
INS 30360	85030361	132,55	342,02	315,5	112,35	320,62	295,5	63 HP
INS 30380	85030381	132,55	448,7	315,5	112,35	427,3	295,5	84 HP
INS 36360	85036361	132,55	342,02	375,5	112,35	320,62	355,5	63 HP
INS 36380	85036381	132,55	448,7	375,5	112,35	427,3	355,5	84 HP
INS 42380	85042381	132,55	448,7	435,5	112,35	427,3	415,5	84 HP
INS 48380	85048381	132,55	448,7	495,5	112,35	427,3	475,5	84 HP

Scope of delivery: 2 side panels, 3 front profiles, 1 HGS front profile, 4 covers, 2 cover plates, 2 side panel coverings, 4 enclosure feet and mounting material

Note: Installation acc. to DIN IEC 60297-3-101.



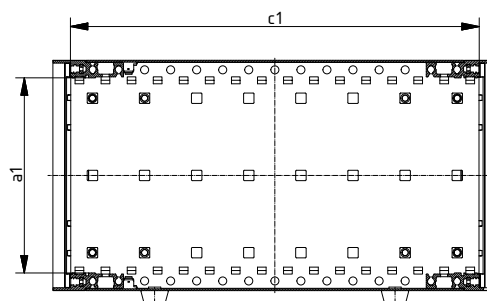
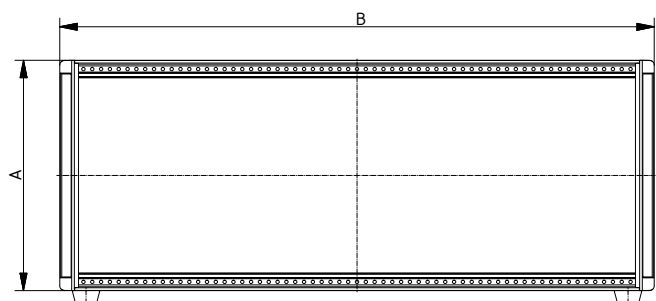
Enclosures without ventilation, 6 U

Model	Order no.	A	B	C	a1	b1	c1	Note
INS 30640	85030641	265,9	235,54	315,5	245,69	213,94	295,5	42 HP
INS 30660	85030661	265,9	342,02	315,5	245,69	320,62	295,5	63 HP
INS 30680	85030681	265,9	448,7	315,5	245,69	427,3	295,5	84 HP
INS 36640	85036641	265,9	235,54	375,5	245,69	213,94	355,5	42 HP
INS 36660	85036661	265,9	342,02	375,5	245,69	320,62	355,5	63 HP
INS 36680	85036681	265,9	448,7	375,5	245,69	427,3	355,5	84 HP
INS 42680	85042681	265,9	448,7	435,5	245,69	427,3	415,5	84 HP
INS 48680	85048681	265,9	448,7	495,5	245,69	427,3	475,5	84 HP

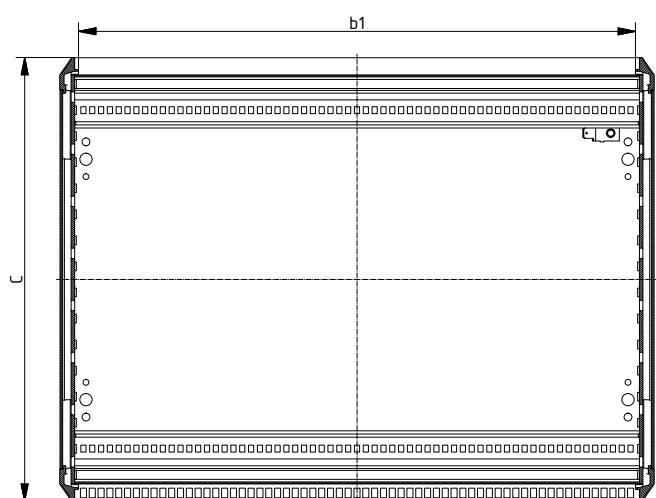
Scope of delivery: 2 side panels, 2 front profiles, 1 HGS front profile, 4 covers, 2 cover plates, 2 side panel coverings, 4 enclosure feet and mounting material

Note: Installation acc. to DIN IEC 60297-3-101.

Internorm Stil



Z-2903302



Internorm Stil with ventilation



Enclosures with integrated ventilation, 3 U, each above and below with additional 0.5 U for the ventilation sections

Model	Order no.	A	B	C	a1	b1	c1	Note
INS 24340-L	85024342	177	235,54	255,5	112,35	213,94	235,5	42 HP
INS 24360-L	85024362	177	342,02	255,5	112,35	320,62	235,5	63 HP
INS 24380-L	85024382	177	448,7	255,5	112,35	427,3	235,5	84 HP
INS 30340-L	85030342	177	235,54	315,5	112,35	213,94	295,5	42 HP
INS 30360-L	85030362	177	342,02	315,5	112,35	320,62	295,5	63 HP
INS 30380-L	85030382	177	448,7	315,5	112,35	427,3	295,5	84 HP
INS 36340-L	85036342	177	235,54	375,5	112,35	213,94	355,5	42 HP
INS 36360-L	85036362	177	342,02	375,5	112,35	320,62	355,5	63 HP
INS 36380-L	85036382	177	448,7	375,5	112,35	427,3	355,5	84 HP
INS 42380-L	85042382	177	448,7	435,5	112,35	427,3	415,5	84 HP

Scope of delivery: 2 side panels, 3 front profiles, 1 HGS front profile, 4 covers, 2 cover plates, 2 side panel coverings, 2 filter strips, 4 enclosure feet and mounting material

Note: Installation acc. to DIN IEC 60297-3-101.



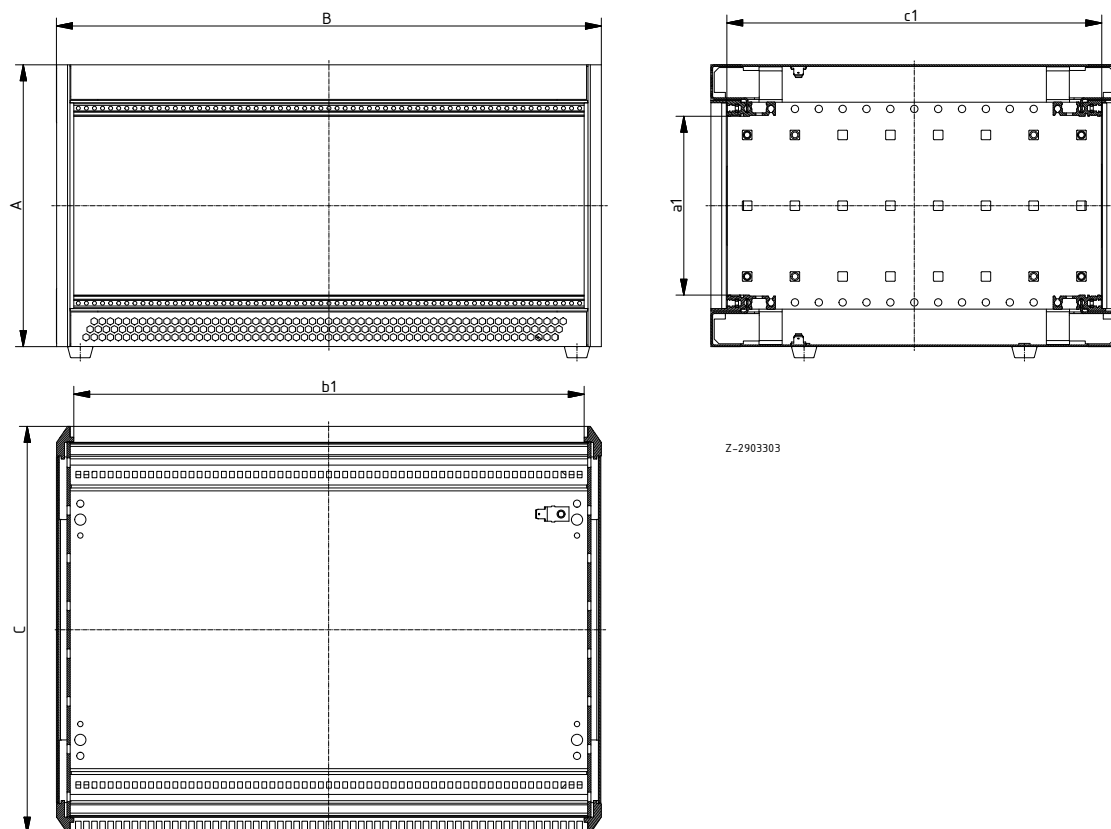
Enclosures with integrated ventilation, 6 U, each above and below with additional 0.5 U for the ventilation sections

Model	Order no.	A	B	C	a1	b1	c1	Note
INS 30640-L	85030642	310,35	235,54	315,5	245,69	213,94	295,5	42 HP
INS 30660-L	85030662	310,35	342,02	315,5	245,69	320,62	295,5	63 HP
INS 30680-L	85030682	310,35	448,7	315,5	245,69	427,3	295,5	84 HP
INS 36640-L	85036642	310,35	235,54	375,5	245,69	213,94	355,5	42 HP
INS 36660-L	85036662	310,35	342,02	375,5	245,69	320,62	355,5	63 HP
INS 36680-L	85036682	310,35	448,7	375,5	245,69	427,3	355,5	84 HP
INS 42680-L	85042682	310,35	448,7	435,5	245,69	427,3	415,5	84 HP
INS 48680-L	85048682	310,35	448,7	495,5	245,69	427,3	475,5	84 HP

Scope of delivery: 2 side panels, 2 front profiles, 2 HGS front profiles, 4 covers, 2 cover plates, 2 side panel coverings, 2 filter strips, 4 enclosure feet and mounting material

Note: Installation acc. to DIN IEC 60297-3-101.

Internorm Stil with ventilation



Internorm Stil

tower enclosure / mounting material



Tower enclosure without ventilation, 3 U

Model	Order no.	A	B	C	a1	b1	c1	Note
INS 48380 V	85048384	132,55	448,7	495,5	112,35	427,3	475,5	84 HP

Scope of delivery: 2 side panels, 4 front profiles, 2 front covers, 2 rear trims, 1 top cover, 2 side cover plates with earthing connections, 2 enclosure feet and mounting material

Note: Installation acc. to DIN IEC 60297-3-101. For dimension assignment, see INS 3 U.

Tower enclosure without ventilation, 4 U

Model	Order no.	A	B	C	a1	b1	c1	Note
INS 48480 V	85048484	177	448,7	495,5	156,8	427,3	475,5	84 HP

Scope of delivery: 2 side panels, 4 front profiles, 2 front covers, 2 rear trims, 1 top cover, 2 side cover plates with earthing connections, 2 enclosure feet and mounting material

Note: Installation acc. to DIN IEC 60297-3-101. For dimension assignment, see INS 3 U.

Fixing screws for additionally fitted profiles

Model	Order no.	Note
BFS/INS 0100	86050100	SHR Z M 4x14-S0, toothed, countersink cone, galvanised steel, torx 20

Scope of delivery: 20 screws

Shorter fitting screws for profiles (if a card guide is screwed to slot 1)

Model	Order no.	Note
BFS/INS 0200	86050200	SHR Z M 4x10-S0, toothed, countersink cone, galvanised steel, torx 20

Scope of delivery: 20 screws

Fitting screws for cover plates

Model	Order no.	Note
BFS/INS 0300	86050300	SHR S M 4x8-S0, anodised steel, torx 20

Scope of delivery: 20 screws

Internorm Stil accessories

Strap handles made of plastic-coated spring steel, anthracite grey, incl. lateral trim

Model	Order no.	Note
FBGR/INS 24300	86051324	For INS 24300
FBGR/INS 30300	86051330	For INS 30300
FBGR/INS 36300	86051336	For INS 36300
FBGR/INS 42300	86051342	For INS 42300
FBGR/INS 48300	86051348	For INS 48300

Scope of delivery: 1 handle, including lateral trim and mounting material

Note: No mechanical processing required when retrofitted to INS enclosures (3 U). Max. supporting load approx. 20 kg.



Tip-up handle for INS, 3 U, adjustable and snap-in, anthracite grey/white aluminium, powder-coated (can only be fitted in connection with SBT/INS)

Model	Order no.	Note
AGR/INS 00342	86051142	For INS 00340
AGR/INS 00363	86051163	For INS 00360
AGR/INS 00384	86051184	For INS 00380

Scope of delivery: 1 handle, including mounting material, without lateral trim

Note: Can be retrofitted without mechanical processing. The handle is adjustable in 30° detent stages. Max. supporting load approx. 30 kg.



Lateral trims for AGR tip-up handle

Model	Order no.	Note
SBT/INS 24300	86059243	For INS 24300
SBT/INS 30300	86059303	For INS 30300
SBT/INS 36300	86059363	For INS 36300
SBT/INS 42300	86059423	For INS 42300
SBT/INS 48300	86059483	For INS 48300

Scope of delivery: 2 lateral trims including mounting material

Note: For use with AGR/INS.



19" flange, aluminium, anthracite grey, powder-coated, screwable in place of the cover strips

Model	Order no.	Note
FL/INS 00300	86052003	For INS 00300
FL/INS 00300-L	86052004	For INS 00300-L
FL/INS 00600	86052006	For INS 00600
FL/INS 00600-L	86052007	For INS 00600-L

Scope of delivery: 2 flanges



Internorm Stil accessories



Flange handles, anthracite grey, screwable onto the FL/INS flanges

Model	Order no.	Note
GR/INS 00300	86051203	For INS 00300
GR/INS 00400	86051204	For INS 00300-L, INS 00600-L
GR/INS 00600	86051206	For INS 00600

Scope of delivery: 2 handles including mounting material

Note: Can be screwed onto the pre-punched flanges. Max. supporting load approx. 35 kg.



Front handles, aluminium, anthracite grey, powder-coated, screwable in place of the cover strips

Model	Order no.	Note
FGR/INS 00300	86051003	For INS 00300
FGR/INS 00300-L	86051004	For INS 00300-L
FGR/INS 00600	86051006	For INS 00600
FGR/INS 00600-L	86051007	For INS 00600-L

Scope of delivery: 2 front handles



Tip-up feet, collapsible, plastic, UL 94 V0, anthracite grey, non-slip

Model	Order no.
AF1/INS	86050000

Scope of delivery: 2 collapsible feet, 2 fixed feet, including mounting material

Note: For use instead of the standard feet. Max. supporting load 25 kg for each foot; max. enclosure weight 50 kg.



Plug-in stack adapter, anthracite grey (only for use with the AF1/INS tip-up foot)

Model	Order no.
STA1/INS	86050010

Scope of delivery: 4 stack adapter

Note: For use as a stacking aid or design element. Can only be used with tip-up foot AF1/INS.



Partition, self-adhesive PE foam for sealing between rear profile and baseplate

Model	Order no.	Note
RA/INS 00042	86055042	For INS 00040-L
RA/INS 00063	86055063	For INS 00060-L
RA/INS 00084	86055084	For INS 00080-L

Scope of delivery: 1 partition

Note: Temperature range -20°C to +120°C.

Internorm Stil accessories

Support profiles for contacting between side panel and plug-in unit, uncoated aluminium

Model	Order no.	Note
TL/INS 00300	86051103	For INS 00300
TL/INS 00600	86051106	For INS 00600

Scope of delivery: 4 support profiles including EMC profile seals and mounting material

Note: EMC spring FP/M can also be used instead of the textile profile seal.



EMC springs for horizontal shielding between cover plates and side panels, stainless steel

Model	Order no.	Note
EMV-Feder-AS/INS 24000	86055124	For INS 24000
EMV-Feder-AS/INS 30000	86055130	For INS 30000
EMV-Feder-AS/INS 36000	86055136	For INS 36000
EMV-Feder-AS/INS 42000	86055142	For INS 42000
EMV-Feder-AS/INS 48000	86055148	For INS 48000

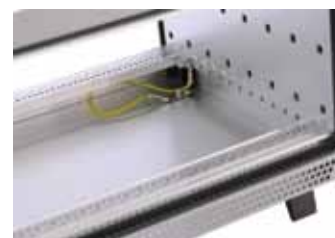
Scope of delivery: 4 EMC springs



Earthing set for earthing connection of the enclosure parts, 1.5 mm Cu lead, PVC sheathing

Model	Order no.
ES/INS	86056000

Scope of delivery: 1 Cu lead including mounting material



Interzoll Plus

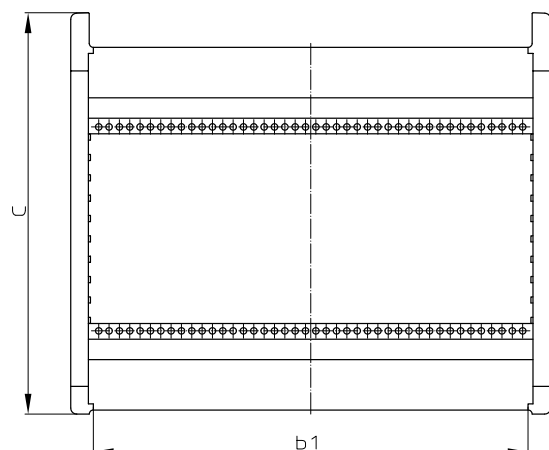
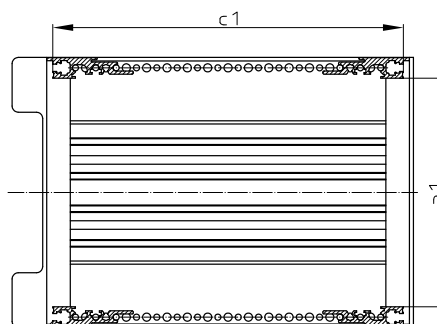
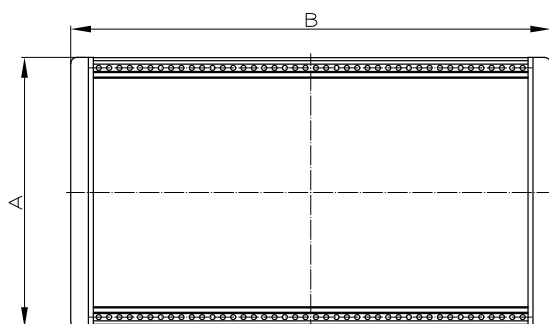


Enclosures profile sets 3U

Model	Order no.	A	B	C	a1	b1	c1	Note
IZP 18340	28183400	132,7	235,84	197,2	112,3	213,36	172,2	42 HP
IZP 18360	28183600	132,7	342,52	197,2	112,3	320,04	172,2	63 HP
IZP 18380	28183800	132,7	449,2	197,2	112,3	426,72	172,2	84 HP
IZP 24340	28243400	132,7	235,84	257,2	112,3	213,36	232,2	42 HP
IZP 24360	28243600	132,7	342,52	257,2	112,3	320,04	232,2	63 HP
IZP 24380	28243800	132,7	449,2	257,2	112,3	426,72	232,2	84 HP
IZP 30340	28303400	132,7	235,84	317,2	112,3	213,36	292,2	42 HP
IZP 30360	28303600	132,7	342,52	317,2	112,3	320,04	292,2	63 HP
IZP 30380	28303800	132,7	449,2	317,2	112,3	426,72	292,2	84 HP
IZP 36340	28363400	132,7	235,84	377,2	112,3	213,36	352,2	42 HP
IZP 36360	28363600	132,7	342,52	377,2	112,3	320,04	352,2	63 HP
IZP 36380	28363800	132,7	449,2	377,2	112,3	426,72	352,2	84 HP

Scope of delivery: 2 side panels, 4 screw covers, 2 cover panels, 2 cover panels with foot, 4 front profiles, 4 tapped strips I, 4 rubber feet and mounting material

Note: Installation acc. to DIN IEC 60297-3-101. 2 U versions on request.



Z-2903304

Interzoll Plus accessories

Cover plate, plain, sheet steel, light grey lacquered

Model	Order no.	C	Note
ADG 06042	54960420	63	42 HP
ADG 06063	54960630	63	63 HP
ADG 06084	54960840	63	84 HP
ADG 12042	54912420	123	42 HP
ADG 12063	54912630	123	63 HP
ADG 12084	54912840	123	84 HP
ADG 13042	54913420	133	42 HP
ADG 13063	54913630	133	63 HP
ADG 13084	54913840	133	84 HP
ADG 18042	54918420	183	42 HP
ADG 18063	54918630	183	63 HP
ADG 18084	54918840	183	84 HP
ADG 19042	54919420	193	42 HP
ADG 19063	54919630	193	63 HP
ADG 19084	54919840	193	84 HP
ADG 24042	54924420	243	42 HP
ADG 24063	54924630	243	63 HP
ADG 24084	54924840	243	84 HP
ADG 25042	54925420	253	42 HP
ADG 25063	54925630	253	63 HP
ADG 25084	54925840	253	84 HP
ADG 31042	54931420	313	42 HP
ADG 31063	54931630	313	63 HP
ADG 31084	54931840	313	84 HP

Scope of delivery: 1 cover plate

C = depth in mm

Possible uses for the cover plates:

Enclosure	Card guide	Continuous ADG	Combination ADG split
IZP 183..	-		ADG 060.. with ADG 060..
IZP 183..	KF 160	ADG 130..	
IZP 243..	KF 160		ADG 120.. with ADG 060..
IZP 243..	KF 160 / KF 220-K	ADG 190..	
IZP 303..	KF 160		ADG 120.. with ADG 120..
IZP 303..	KF 220-K		ADG 180.. with ADG 060..
IZP 303..	KF 160 / KF 220-K / KF 280-K	ADG 250..	
IZP 363..	KF 160		ADG 120.. with ADG 180..
IZP 363..	KF 220-K		ADG 180.. with ADG 120..
IZP 363..	KF 280-K		ADG 240.. with ADG 060..
IZP 363..	KF 160 / KF 220-K / KF 280-K / KF 340-K	ADG 310..	

Note: Clamp profile set EPS is required for fitting of the split version.



Interzoll Plus accessories



Perforated cover plate, hole diameter 2.5 mm, sheet steel, light grey lacquered

Model	Order no.	C	Note
ADG 06042-L	54960421	63	42 HP
ADG 06063-L	54960631	63	63 HP
ADG 06084-L	54960841	63	84 HP
ADG 12042-L	54912421	123	42 HP
ADG 12063-L	54912631	123	63 HP
ADG 12084-L	54912841	123	84 HP
ADG 13042-L	54913421	133	42 HP
ADG 13063-L	54913631	133	63 HP
ADG 13084-L	54913841	133	84 HP
ADG 18042-L	54918421	183	42 HP
ADG 18063-L	54918631	183	63 HP
ADG 18084-L	54918841	183	84 HP
ADG 19042-L	54919421	193	42 HP
ADG 19063-L	54919631	193	63 HP
ADG 19084-L	54919841	193	84 HP
ADG 24042-L	54924421	243	42 HP
ADG 24063-L	54924631	243	63 HP
ADG 24084-L	54924841	243	84 HP
ADG 25042-L	54925421	253	42 HP
ADG 25063-L	54925631	253	63 HP
ADG 25084-L	54925841	253	84 HP
ADG 31042-L	54931421	313	42 HP
ADG 31063-L	54931631	313	63 HP
ADG 31084-L	54931841	313	84 HP

Scope of delivery: 1 cover plate

C = depth in mm

Possible uses for the cover plates:

Enclosure	Card guide	Continuous ADG	Combination ADG split
IZP 183..	-		ADG 060.. with ADG 060..
IZP 183..	KF 160	ADG 130..	
IZP 243..	KF 160		ADG 120.. with ADG 060..
IZP 243..	KF 160 / KF 220-K	ADG 190..	
IZP 303..	KF 160		ADG 120.. with ADG 120..
IZP 303..	KF 220-K		ADG 180.. with ADG 060..
IZP 303..	KF 160 / KF 220-K / KF 280-K	ADG 250..	
IZP 363..	KF 160		ADG 120.. with ADG 180..
IZP 363..	KF 220-K		ADG 180.. with ADG 120..
IZP 363..	KF 280-K		ADG 240.. with ADG 060..
IZP 363..	KF 160 / KF 220-K / KF 280-K / KF 340-K	ADG 310..	

Note: Clamp profile set EPS is required for fitting of the split version.

Interzoll Plus accessories

Clamp profile sets, natural-coloured anodised aluminium, for fitting of split cover plates

Model	Order no.	Note
EPS 00042	54002420	42 HP
EPS 00063	54002630	63 HP
EPS 00084	54002840	84 HP

Scope of delivery: 2 profiles including mounting material



Bus profiles, natural-coloured anodised aluminium, for fitting of standard backplanes

Model	Order no.	Note
IZPB 00042	54301042	42 HP
IZPB 00063	54301063	63 HP
IZPB 00084	54301084	84 HP

Scope of delivery: 2 profiles including tapped strips and mounting material



Rear profiles, natural-coloured anodised aluminium, with integrated Z-rail for connectors acc. to DIN EN 60603-2 (formerly DIN 41612)

Model	Order no.	Note
IZPR 00042	54304210	42 HP
IZPR 00063	54306310	63 HP
IZPR 00084	54308410	84 HP

Scope of delivery: 2 profiles including tapped strips and mounting material



Handles / tip-up bows, hinged

Model	Order no.	Note
IZP-HS 00040	54542010	For IZP 00040
IZP-HS 00060	54563010	For IZP 00060
IZP-HS 00080	54584010	For IZP 00080

Scope of delivery: 1 handle including fixing material

Note: Fixed detent positions of the handle at 30° stages. Mechanical processing of the side panel on request.



Collapsible tip-up feet

Model	Order no.	Note
AB 1230	39603000	Including 4 sheet metal screws

Scope of delivery: 2 collapsible feet, 2 fixed feet, including mounting material

Note: Mechanical processing of the cover plate on request.





Internorm

Robust plastic enclosure for fitting 19" subracks

- 5 sizes
- More sizes on request
- Heights can be adjusted using extension sets
- Collapsible screw cover
- Integrated collapsible tip-up feet
- Front door IP 54 as an accessory
- Wall mounting is possible



Colour	Light grey, similar to RAL 7035 and silver grey, similar to RAL 7001; special colours on request
Protection class	IP 40/DIN EN 60529; IP 54/DIN EN 60529 as an option
Enclosure material	PS; for details see Technical Information

The enclosure half-shells are connected by profiles available in two versions. The height of the two half-shells (basis 3 U) can be extended in 1 U steps with extension sets. Matching profiles are available as accessories; we offer special lengths on request. The different profiles can be used for the assembly of plug-in or screw-on front panels and also 19" subracks. The continuous handle channel or the handle / tip-up bow (available as an accessory) ensures easy carrying. The push button-operated self-opening screw covers and tip-up feet conceal screws, which preserves the attractive looks.

The enclosure can be upgraded to protection class IP 54 by the use of seals and IP front panels or lockable doors.

Enclosure with air vents and 2 U versions on request.



Internorm

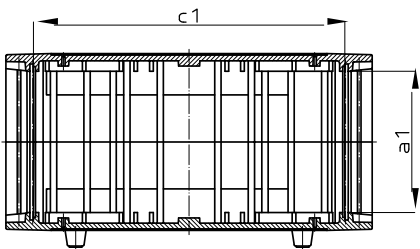
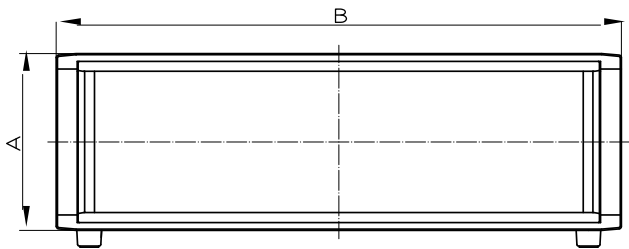


Enclosure half-shells, plain, with fitted screw covers and collapsible feet

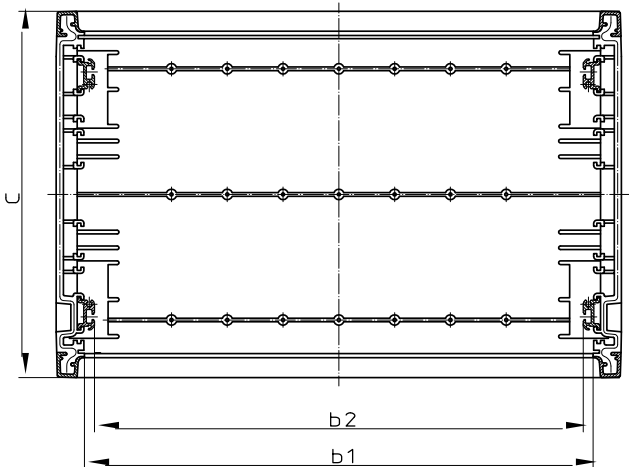
Model	Order no.	A	B	C	a1	b1	b2	c1	Note
IN 25060	30250600	169	434	250	135	379	360	197	63 HP
IN 35040	30350400	169	327	350	135	272	253	297	42 HP
IN 35060	30350600	169	434	350	135	379	360	297	63 HP
IN 35080	30350800	169	540	350	135	486	467	297	84 HP
IN 45080	30450800	169	540	450	135	486	467	397	84 HP

Scope of delivery: 2 enclosure half-shells including fixing material

Note: Additional sizes and types with air vents on request. Necessary mounting, 19" and corner profiles (4 pieces) as accessories.



Z-2203305



Internorm accessories

Extension sets 1 U

Model	Order no.	Note
AB 25100	31251000	For IN 25000
AB 35100	31351000	For IN 35000
AB 45100	31451000	For IN 45000

Scope of delivery: 1 extension set = 2 pieces

Note: One extension set raises the enclosure by one U. Extensions sets with air vents on request.

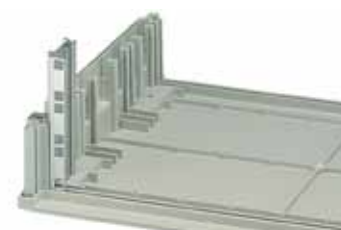


19" profile sets, natural-coloured anodised aluminium, for fitting of subracks or screw-on FPS... front panels

Model	Order no.	Note
PZ 00300	31000080	3 U
PZ 00400	31000081	4 U
PZ 00500	31000082	5 U
PZ 00600	31000083	6 U
PZ 00700	31000084	7 U
PZ 00800	31000085	8 U

Scope of delivery: 2 profiles

Note: Additional sizes on request. Fixing material KM 5, KS 5, KU 5, KM4/5.3 as accessories.



Mounting profile sets, natural-coloured anodised aluminium, vertical mounting grooves for insertion of FP..., FPK..., FIP... front panels

Model	Order no.	Note
PM 00300	31000070	3 U
PM 00400	31000071	4 U
PM 00500	31000072	5 U
PM 00600	31000073	6 U
PM 00700	31000074	7 U
PM 00800	31000075	8 U

Scope of delivery: 2 profiles

Note: Additional sizes on request. Fixing material KM 4/5.3 for profile groove as accessories.



Corner profile sets, plastic, silver grey, for pushing or latching onto the enclosure corners

Model	Order no.	Note
PEK 00300	31030300	3 U
PEK 00400	31040300	4 U
PEK 00500	31050300	5 U
PEK 00600	31060300	6 U
PEK 00700	31070300	7 U
PEK 00800	31080300	8 U

Scope of delivery: 2 profiles

Note: Additional sizes on request.



Internorm accessories



Wall corner profile sets, aluminium, silver grey, powdered

Model	Order no.	Note
PEW 00300	31030400	3 U

Scope of delivery: 2 profiles



Front/rear panels, plug-in, natural-coloured anodised aluminium

Model	Order no.	Note
FP 00340	31000010	For IN 00040, 3 U
FP 00360	31000020	For IN 00060, 3 U
FP 00380	31000030	For IN 00080, 3 U
FP 00440	31000011	For IN 00040, 4 U
FP 00460	31000021	For IN 00060, 4 U
FP 00480	31000031	For IN 00080, 4 U
FP 00540	31000012	For IN 00040, 5 U
FP 00560	31000022	For IN 00060, 5 U
FP 00580	31000032	For IN 00080, 5 U
FP 00640	31000013	For IN 00040, 6 U
FP 00660	31000023	For IN 00060, 6 U
FP 00680	31000033	For IN 00080, 6 U

Scope of delivery: 1 front panel

Note: Only for use with PM... mounting profile. Additional sizes on request.



Front/rear panels, plug-in, plastic, light grey

Model	Order no.	Note
FPK 00340	31003400	For IN 00040, 3 U
FPK 00360	31003600	For IN 00060, 3 U
FPK 00380	31003800	For IN 00080, 3 U
FPK 00440	31004400	For IN 00040, 4 U
FPK 00460	31004600	For IN 00060, 4 U
FPK 00480	31004800	For IN 00080, 4 U
FPK 00540	31005400	For IN 00040, 5 U
FPK 00560	31005600	For IN 00060, 5 U
FPK 00580	31005800	For IN 00080, 5 U
FPK 00640	31006400	For IN 00040, 6 U
FPK 00660	31006600	For IN 00060, 6 U
FPK 00680	31006800	For IN 00080, 6 U

Scope of delivery: 1 front panel

Note: Only for use with PM... mounting profile. Additional sizes on request.

Internorm accessories

Front/rear panels, screwable, natural-coloured anodised aluminium

Model	Order no.	Note
FPS 00180	31018100	For IN 00080, 1 U
FPS 00240	31024100	For IN 00040, 2 U
FPS 00260	31026100	For IN 00060, 2 U
FPS 00280	31028100	For IN 00080, 2 U
FPS 00340	31000040	For IN 00040, 3 U
FPS 00360	31000050	For IN 00060, 3 U
FPS 00380	31000060	For IN 00080, 3 U
FPS 00440	31000041	For IN 00040, 4 U
FPS 00460	31000051	For IN 00060, 4 U
FPS 00480	31000061	For IN 00080, 4 U
FPS 00540	31000042	For IN 00040, 5 U
FPS 00560	31000052	For IN 00060, 5 U
FPS 00580	31000062	For IN 00080, 5 U
FPS 00640	31000043	For IN 00040, 6 U
FPS 00660	31000053	For IN 00060, 6 U
FPS 00680	31000063	For IN 00080, 6 U

Scope of delivery: 1 front panel

Note: Only for use with PZ...19" profile. Additional sizes on request. Fixing material KM 5, KS 5, KU 5 as accessories.



Front/rear panels, plug-in, natural-coloured anodised aluminium, including fitted seal, IP 54

Model	Order no.	Note
FIP 00340	31000450	For IN 00040, 3 U
FIP 00360	31000460	For IN 00060, 3 U
FIP 00380	31000470	For IN 00080, 3 U
FIP 00440	31000451	For IN 00040, 4 U
FIP 00460	31000461	For IN 00060, 4 U
FIP 00480	31000471	For IN 00080, 4 U
FIP 00540	31000452	For IN 00040, 5 U
FIP 00560	31000462	For IN 00060, 5 U
FIP 00580	31000472	For IN 00080, 5 U
FIP 00640	31000453	For IN 00040, 6 U
FIP 00660	31000463	For IN 00060, 6 U
FIP 00680	31000473	For IN 00080, 6 U

Scope of delivery: 1 front panel

Note: Only for use with PM... mounting profile. Additional sizes on request. The IN-DI seal is needed if ingress protection is required for the enclosure.



Internorm accessories



Front doors incl. lock, aluminium frame, silver grey lacquered, clear viewing window, IP 54

Model	Order no.	Note
TV 00340 IPZ	31034800	For IN 00340
TV 00360 IPZ	31036800	For IN 00360
TV 00380 IPZ	31038800	For IN 00380

Scope of delivery: 1 front door including corner profiles

Note: Flat-type door for combination with handle, and additional sizes on request.



Seal IP 54 / EMC seal for enclosures and extension sets

Model	Order no.	Note
IN-DI	31500000	
IN-DI EMV	31500010	

Scope of delivery: 1 m seal

Note: FIP front panels or front doors are needed if ingress protection is required for the enclosure.



Handles / tip-up bows, hinged

Model	Order no.	Note
HS 00040	31000641	For IN 00040
HS 00060	31000661	For IN 00060
HS 00080	31000681	For IN 00080

Scope of delivery: 1 handle including fixing material

Note: In connection with the front door, the handle recess must be at the back during fitting. Mechanical processing is required for the fitting of the handles.



Slide rails, natural-coloured anodised aluminium, for supporting the weight of heavy equipment

Model	Order no.	Note
GLS 25000*	31025000*	For IN 25000
GLS 35000*	31035000*	For IN 35000
GLS 45000*	31045000*	For IN 45000

Scope of delivery: 2 slide rails including fixing material

Note: * = Available on request.

Internorm accessories

Outlet filter, snap-in, ABS UL 94 V0, light grey

Model	Order no.	A	B	Note
AF 1515	31801515	150	150	Installation depth 28 mm

Scope of delivery: Lid/base, filter mat, cleaning instructions, servicing instructions

Note: Mechanical processing of the enclosures is required for the fitting of the outlet filters. Technical details, filter specifications and additional designs on request.



Internorm mounting material

Model	Order no.	Note
KM 5	54700350	M5 cage nut for fitting of BGT / FPS in the enclosure or cabinet
KS 5	54700360	M5 cross-head screw for fitting of BGT / FPS in the enclosure or cabinet
KU 5	54700370	Washer for KS 5, nickel-plated brass
KM 4/5,3	54700340	M4 cage nut for insertion into the vertical groove of PM... and PZ... profiles.

Scope of delivery: 10 pieces





Interzoll Modul / Interzoll

This comprehensive range
of 19" subracks provides
the perfect solution
for every application.

- Wide range of standard products
- Standard subracks for Euro and double Euro cards
- EMC protection upgradable at any time
- Railway-tested versions for use in buses and rail vehicles
- Special subracks can be produced quickly and flexibly
- Ejector handle
- Part and plug-in front panels
- Frame-type plug-in units
- Comprehensive range of accessories



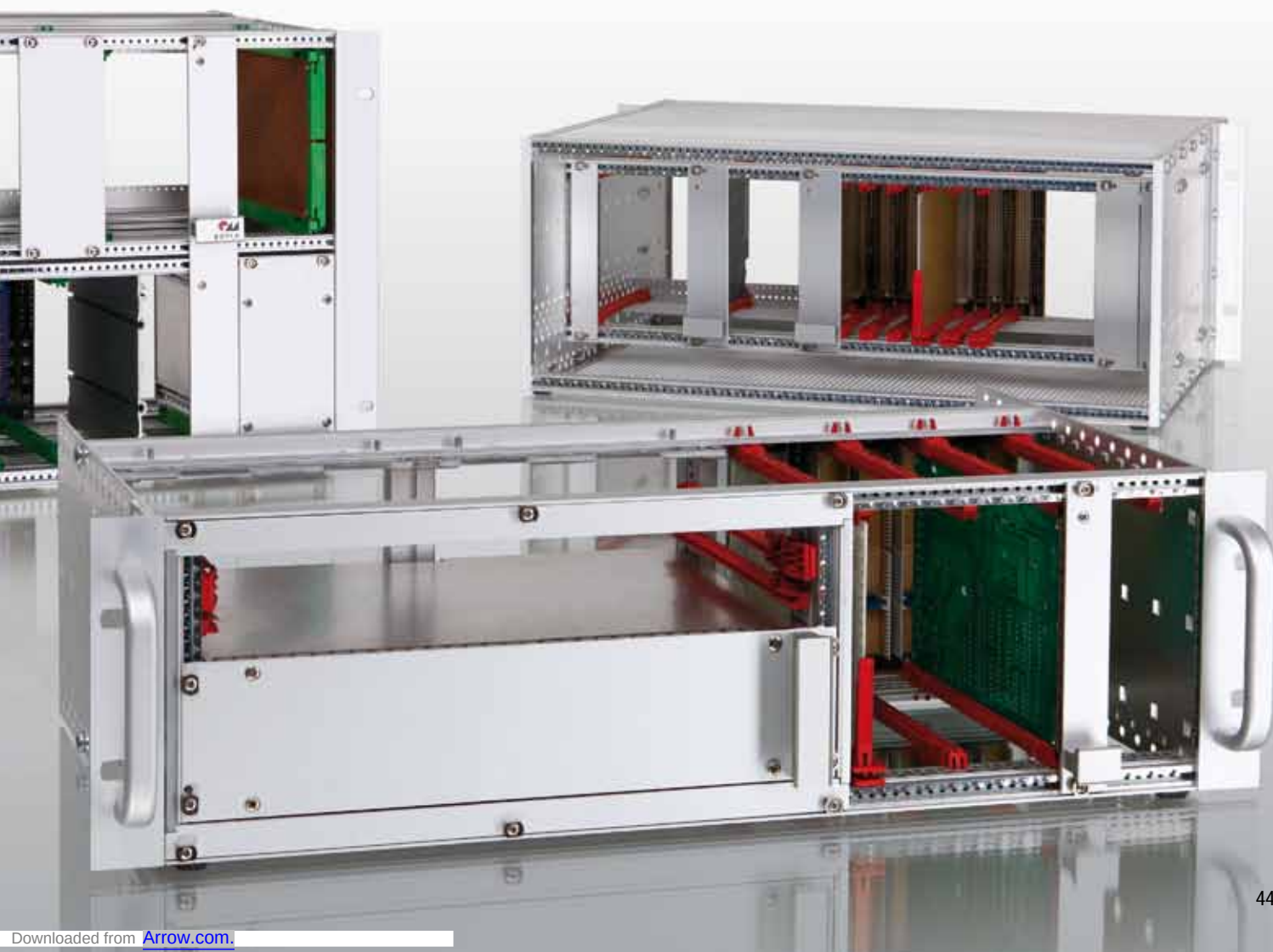
Colour	Profiles, natural-coloured anodised aluminium
Protection class	IP 20/DIN EN 60529
Enclosure material	Profile Al Mg: Si 0.5; for details see Technical Information.

Interzoll Modul: All components comply with DIN IEC 60297-3-101 / IEEE 1101.1, DIN IEC 60297-3-102 / IEEE 1101.10/11 and DIN IEC 60297-3-103 (insertion/withdrawal handles). EMC test acc. to VG 95373 part 15. The Interzoll Modul subrack has successfully passed the shock and vibration tests acc. to Federal Railway standard BN 411002 and acc. to IEC 61587-1 as carried out by an independent institute. This means that the BN-designated profile rails can be used for a railway-tested subrack and in buses and rail vehicles. The subracks can be upgraded at any time by the use of EMC components. Standard sizes: 3 and 6 rack units (U); 42, 63 and 84 horizontal pitches (HP); 178, 238, 298 and 358 mm depth. Versions for backplane technology (.Pi), for direct screw-on connectors acc. to DIN EN 60603-2 (.12), for plug-in units acc. to IEC 60297-3-101, for plug-in units with insertion and withdrawal function acc. to DIN IEC 60297-3-101.10 for Compact PCI and VME 64x applications.

Interzoll: All components comply with standards DIN IEC 60297-3-101 and -102. Standard sizes: 3 and 6 rack units (U); 42, 63 and 84 horizontal pitches (HP); 178, 218, 238 and 298 mm depth (depending on model). Versions for backplane technology (.Pi), for direct screw-on connectors (.12) acc. to DIN EN 60603-2, for plug-in units acc. to IEC 60297-3-101.

All profiles for bus or connector technology can be displaced in their depth by in each case 10 mm (IZ) or 15 mm (IZM).

Additional profiles can be found in the Interzoll and Interzoll Modul accessories sections. Special dimensions, modifications, and complete mounting are available on request. Individual subracks can be provided at any time using separate components.





The HGS ejector handle complies with DIN IEC 60297-3-101 / IEEE 1101.1, DIN IEC 60297-3-102 / IEEE 1101.10/11, DIN IEC 60297-3-103. The ejector handle is designed for multiple functions and can cope with high insertion and withdrawal forces. The lockable ejector handle guarantees a secure insertion fit, and can be released from its locking position by gentle tapping. The withdrawal and insertion function is only possible on subracks or front profile rails whose designation includes the letters HG. The optimal pivoting effect results in a long withdrawal path. A long and a short alignment pin are integrated in the ejector handle. The long alignment and/or earthing pin is plugged into the coding block of the card guide. If the KE/M-IEEE card earthing spring is inserted into the coding block, electrostatic charging of the PCB is discharged to the subrack. In the version without coding, the short alignment pin can be plugged into the LO/M perforated strip, which guarantees secure positioning of the plug-in front panel. The handle is fixed by means of a screw on the plug-in front panel. Details of the relevant notch can be found in the drawings of the plug-in front panel for ejector handles. Minimum space requirement: 4 HP. The coding peg and block are illustrated in the Interzoll Modul accessories.

All front panels are 2.5 mm thick, natural-coloured anodised aluminium on the front, passivated on the rear, comply with DIN IEC 60297-3-101 / IEEE 1101.1, and are available in a standard or EMC version. The EMC version has a slit at the side to hold a special EMC spring and is fitted with an alignment pin which is plugged into a perforated strip and positions the front panel (only Interzoll Modul and Internorm Stil). Swivelling or collapsible part front panels are available in sizes 3 and 6 U, and 42, 63 and 84 U.



The Interzoll Modul frame-type plug-in units comply with DIN IEC 60297-3-101 / IEEE 1101.1.



Side panels in 2 versions, 5 different heights and 6 different depths. For extreme mechanical loads, the support brackets are firmly riveted to the side panel. All side panels are passivated, so have a conductive function.



Plug-in units with HGS handle for insertion and withdrawal function comply with standards DIN IEC 60297-3-102/IEEE 1101.10. Optimal leverage effect overcomes high insertion and withdrawal forces.



All guide rails have stable snap-in fixings to ensure a firm fit. Tip to the side for easy unlocking. Various card guides are available for the use of coding pegs and card retainers.



Continuous numbering on the profile rails and a punching, with marking in the card guide, provide a fast visual guide to insertion. The card guides can be screwed into position for extra stability. Card earthing springs at the front and back protect the electronics against electrostatic discharging.



A shielded backplane is screened against the side panel by means of a vertical profile with a fitted EMC spring.



A support profile fixed to the side panel guarantees contact with a fitted recessed front panel or plug-in unit.



The rear end profile cannot be used only at the rear for rear screening, but also as a front cover if for example the flange side of the subrack is screwed to a wall.



Torx screws hold the profiles in position. When turned, they are automatically pressed against the protruding boss, secured against turning, and positioned exactly.



EMC springs are clipped onto a conductive area of the profiles; the subracks provide the necessary contact to the screened front panel.



A stainless steel spring ensures secure contacting from the profile to the cover plate.



Interzoll

Allen screws in connection with securing washers for screwing side panels and profile rails for railway-tested version of the Interzoll subracks.



Interzoll

The profile side walls allow fast mounting because of the integrated flange and rear cover, and increased stability (railway-tested version).



Interzoll

Locking of the card guides is by means of snap bolts which can easily be released by finger activation. This guarantees easy handling even when the Interzoll slots are close together.

Interzoll Modul 3 U



Subrack, 3 U, for backplanes (.Pi) and connectors, DIN EN 60603-2 (.12)

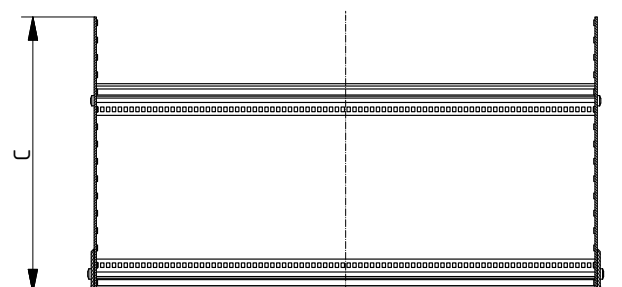
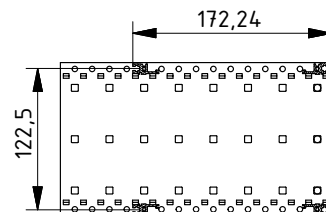
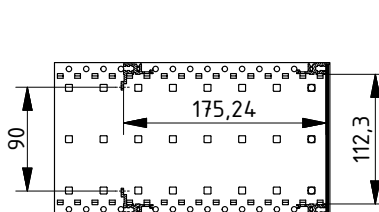
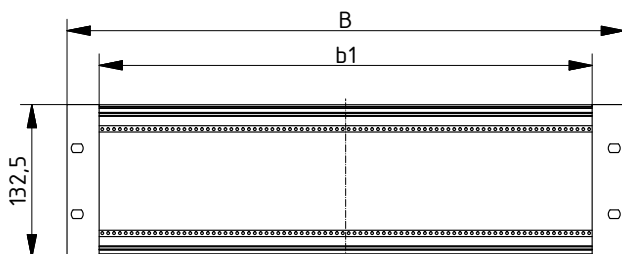
Model	Order no.	B	C	b1	Note
BGT/M 18340.Pi	85183420	269,24	178	213,64	42 HP
BGT/M 24340.Pi	85243420	269,24	238	213,64	42 HP
BGT/M 30340.Pi	85303420	269,24	298	213,64	42 HP
BGT/M 36340.Pi	85363420	269,24	358	213,64	42 HP
BGT/M 18360.Pi	85183620	375,92	178	320,32	63 HP
BGT/M 24360.Pi	85243620	375,92	238	320,32	63 HP
BGT/M 30360.Pi	85303620	375,92	298	320,32	63 HP
BGT/M 36360.Pi	85363620	375,92	358	320,32	63 HP
BGT/M 18380.Pi	85183820	482,6	178	427	84 HP
BGT/M 24380.Pi	85243820	482,6	238	427	84 HP
BGT/M 30380.Pi	85303820	482,6	298	427	84 HP
BGT/M 36380.Pi	85363820	482,6	358	427	84 HP
BGT/M 18340.12	85183400	269,24	178	213,64	42 HP
BGT/M 24340.12	85243400	269,24	238	213,64	42 HP
BGT/M 30340.12	85303400	269,24	298	213,64	42 HP
BGT/M 36340.12	85363400	269,24	358	213,64	42 HP
BGT/M 18360.12	85183600	375,92	178	320,32	63 HP
BGT/M 24360.12	85243600	375,92	238	320,32	63 HP
BGT/M 30360.12	85303600	375,92	298	320,32	63 HP
BGT/M 36360.12	85363600	375,92	358	320,32	63 HP
BGT/M 18380.12	85183800	482,6	178	427	84 HP
BGT/M 24380.12	85243800	482,6	238	427	84 HP
BGT/M 30380.12	85303800	482,6	298	427	84 HP
BGT/M 36380.12	85363800	482,6	358	427	84 HP

Scope of delivery: 2 side panels, 2 flanges, 2 front profiles, 2 bus profiles (.Pi) / 2 rear profiles (.12), mounting material

Note: Matching subrack for ejector handles on request.

BGT/M12

BGT/MPi



Z-2903310

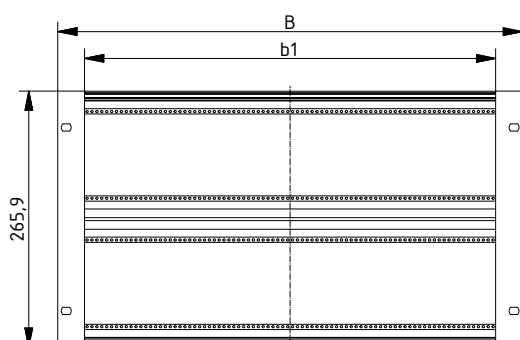
Interzoll Modul 6 U

Subrack, 6 U, for backplanes (.Pi) and connectors, DIN EN 60603-2 (.12)

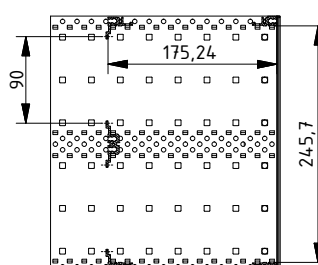
Model	Order no.	B	C	b1	Note
BGT/M 18640.Pi	85186420	269,24	178	213,64	42 HP
BGT/M 24640.Pi	85246420	269,24	238	213,64	42 HP
BGT/M 30640.Pi	85306420	269,24	298	231,64	42 HP
BGT/M 36640.Pi	85366420	269,24	358	213,64	42 HP
BGT/M 18660.Pi	85186620	375,92	178	320,32	63 HP
BGT/M 24660.Pi	85246620	375,92	238	320,32	63 HP
BGT/M 30660.Pi	85306620	375,92	298	320,32	63 HP
BGT/M 36660.Pi	85366620	375,92	358	320,32	63 HP
BGT/M 18680.Pi	85186820	482,6	178	427	84 HP
BGT/M 24680.Pi	85246820	482,6	238	427	84 HP
BGT/M 30680.Pi	85306820	482,6	298	427	84 HP
BGT/M 36680.Pi	85366820	482,6	358	427	84 HP
BGT/M 18640.12	85186410	269,24	178	213,64	42 HP
BGT/M 24640.12	85246410	269,24	238	213,64	42 HP
BGT/M 30640.12	85306410	269,24	298	213,64	42 HP
BGT/M 36640.12	85366410	269,24	358	213,64	42 HP
BGT/M 18660.12	85186610	375,92	178	320,32	63 HP
BGT/M 24660.12	85246610	375,92	238	320,32	63 HP
BGT/M 30660.12	85306610	375,92	298	320,32	63 HP
BGT/M 36660.12	85366610	375,92	358	320,32	63 HP
BGT/M 18680.12	85186810	482,6	178	427	84 HP
BGT/M 24680.12	85246810	482,6	238	427	84 HP
BGT/M 30680.12	85306810	482,6	298	427	84 HP
BGT/M 36680.12	85366810	482,6	358	427	84 HP

Scope of delivery: 2 side panels, 2 flanges, 2 front profiles, 2 bus profiles (.Pi), 1 double bus profile (.Pi) / 2 rear profiles (.12), 1 double connector profile (.12), mounting material

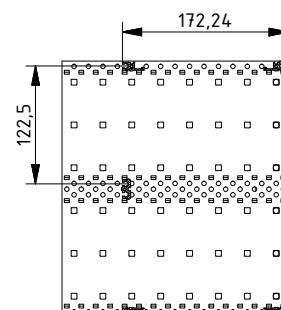
Note: Matching subrack for ejector handles on request.



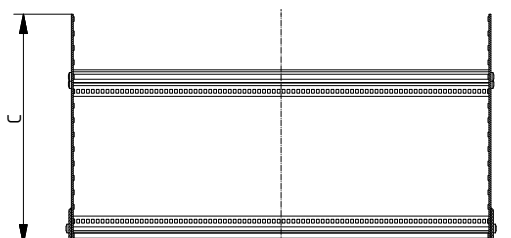
BGT/M12



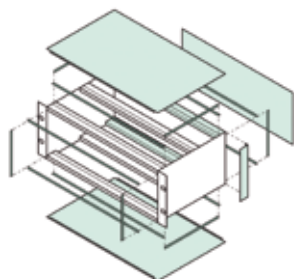
BGT/MPi



Z-2903311



Interzoll Modul accessories



EMC upgrade kit for complete shielding of a BGT/M

Model	Order no.	Note
EMV-R/M 24384	86001324	3 U, 84 HP
EMV-R/M 30384	86001330	3 U, 84 HP
EMV-R/M 24684	86001624	6 U, 84 HP
EMV-R/M 30684	86001630	6 U, 84 HP

Scope of delivery: 2 cover plates ...-L, 4 (3 U) / 6 (6 U) EMC springs -AS/M, 4 EMC springs -AP/M, 6 EMC springs FP/M, 2 profiles PF/M, 2 tapped strips GS/M, 2 perforated strips, 1 part front panel TF/M .84-EMV, 2 profiles RAP/M, mounting material

Note: Additional types, including with handle, on request.



EMC springs, stainless steel, for the connection between profile and cover plate

Model	Order no.	
EMV-Feder-AP/M 42TE	86001042	
EMV-Feder-AP/M 63TE	86001063	
EMV-Feder-AP/M 84TE	86001084	

Scope of delivery: 10 EMC springs

Note: Can be mounted in all front and rear profiles for contacting with angled EMC cover plates.

Mounting tool for EMC spring AP/M

Model	Order no.	
MWZ/M-I	86001201	

Scope of delivery: 1 assembly tool



EMC springs, stainless steel, for the connection between front panels, front panel and flange or rear panel and rear end profile

Model	Order no.	Note
EMV-Feder-FP/M 2HE	86001002	2 U
EMV-Feder-FP/M 3HE	86001003	3 U
EMV-Feder-FP/M 4HE	86001004	4 U
EMV-Feder-FP/M 6HE	86001006	6 U

Scope of delivery: 10 EMC springs

Note: Can be mounted in flanges and end profiles. The front panels must also be equipped with springs.



EMC springs, stainless steel, for the connection between the front panel / backplane and profile

Model	Order no.	Note
EMV-Feder-FP/M 42TE	86001142	42 HP
EMV-Feder-FP/M 63TE	86001163	63 HP
EMV-Feder-FP/M 84TE	86001184	84 HP

Scope of delivery: 10 EMC springs

Note: Can be mounted in all front profiles and bus profiles PBIS/M....

Mounting instruction: arrows point outwards.

Interzoll Modul accessories

Mounting tool for EMC spring FP/M

Model	Order no.	Note
MWZ/M-II	86001202	Assembly tool

Scope of delivery: 1 assembly tool

EMC shielding set between 2 profiles

Model	Order no.	Note
EMV-Feder-PR/M 42 TE	86001242	42 HP
EMV-Feder-PR/M 63 TE	86001263	63 HP
EMV-Feder-PR/M 84 TE	86001284	84 HP

Scope of delivery: 1 sheet metal strip, 2 EMC springs

Note: For shielding the front profile rails with split (2x3 U) installation in 6 U subrack.

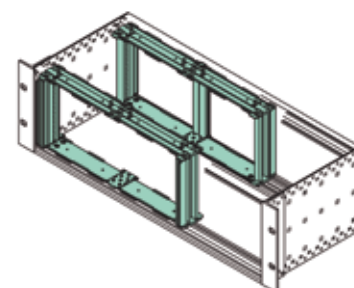


Installation kit, horizontal, for double Euro cards in 3 U subracks

Model	Order no.
ESH/M 00620.Pi	86120610

Scope of delivery: 4 mounting bows, 2 front profiles, 3 bus profiles, 6 tapped strips, mounting material

Note: 20 HP usable installation width; space requirement 53 HP, with ESH-FR 54 HP. Designed for mounting of backplanes. Not for use with horizontal profiles with Z-rails. Other types on request.

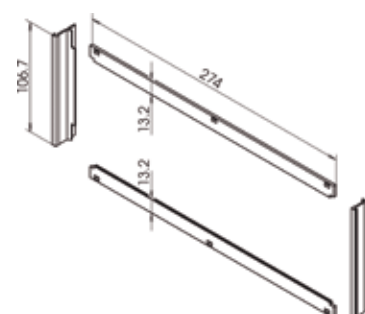


Front frame for horizontal installation kit ESH/M

Model	Order no.
ESH-FR/M 00620	86011206

Scope of delivery: 2 vertical covers incl. EMC springs for connection to profile, 2 horizontal covers with slit for EMC springs FP/M 6 HE

Note: Mounting material as accessories.

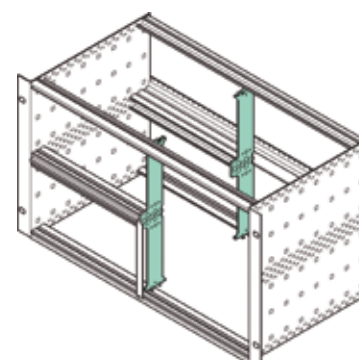


Separating strut, diecast zinc, for combined mounting of Euro and double Euro cards in 6 U subracks

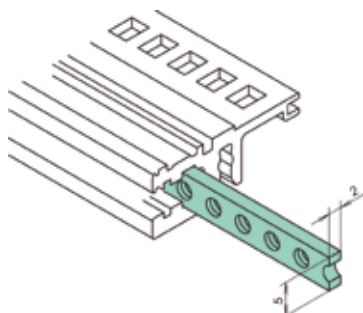
Model	Order no.
TST/M 00600	86010600

Scope of delivery: 1 partition element

Note: The partition element can be fitted on the left or right in the subrack. The partition is hooked in and can be screwed into position if required. Special profile rails on request. Part front panels and mounting material BFS/M 0200 and 0900 as accessories. Not suitable for AD/M.



Interzoll Modul accessories

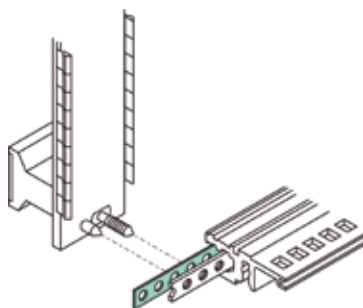


Tapped strips, galv. steel, M2.5

Model	Order no.	Note
GS/M 00042	86542110	42 HP
GS/M 00063	86563110	63 HP
GS/M 00084	86584110	84 HP

Scope of delivery: 1 tapped strip

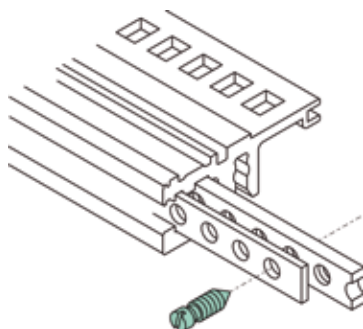
Note: Can be used for all IZM profiles. To fix front panels, use 12.3 mm long collar screws.



Perforated strip, untreated aluminium, for centring the shielded front panels via guide pins

Model	Order no.	Note
LO/M 00020	86520120	20 HP
LO/M 00042	86542120	42 HP
LO/M 00063	86563120	63 HP
LO/M 00084	86584120	84 HP

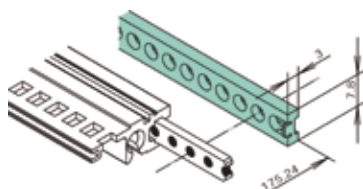
Scope of delivery: 1 perforated strip



M2.5 slotted set screw for fixing the perforated strip and fixing and earthing the threaded insert.

Model	Order no.	Note
GSE/M	86002000	SHR STI Z M2.5x6 DIN 533 A2

Scope of delivery: 20 slotted set screws



Insulating strip, plastic, UL 94 V0, for insulated fixing of backplanes

Model	Order no.	Note
IS/M 00042	86542130	42 HP
IS/M 00063	86563130	63 HP
IS/M 00084	86584130	84 HP

Scope of delivery: 1 insulating strip

Note: Mounting material BFS/M 0300 and 0400 as accessories.

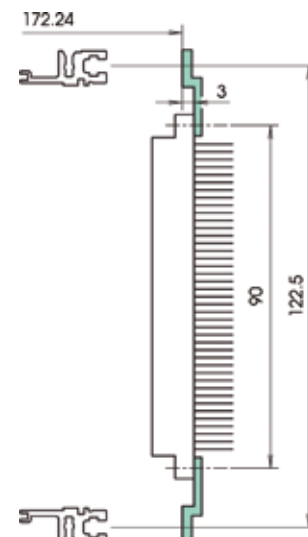
Interzoll Modul accessories

**Z rails, natural-coloured anodised aluminium,
for connectors acc. to DIN EN 60603-2 (formerly DIN 41612)**

Model	Order no.	Note
ZS/M 00040	86540210	40 HP
ZS/M 00060	86560210	60 HP
ZS/M 00084	86584210	84 HP

Scope of delivery: 1 Z-rail

Note: For extension of a bus profile for direct connector mounting. Not for use with PBIS. Mounting material BFS/M 0300 as accessory.

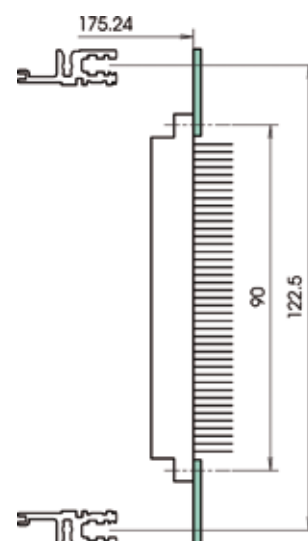


**Perforated rails, passivated aluminium,
for connectors acc. to DIN EN 60603-2 (formerly DIN 41612)**

Model	Order no.	Note
LS/M 00020	86520220	20 HP
LS/M 00030	86530220	30 HP
LS/M 00040	86540220	40 HP
LS/M 00049	86549220	49 HP
LS/M 00060	86560220	60 HP
LS/M 00084	86584220	84 HP

Scope of delivery: 1 perforated rail

Note: For extension of a bus profile for direct connector mounting. Only for use with PBIS. Mounting material BFS/M 0400 as accessory.



Shielded rear hood, passivated aluminium

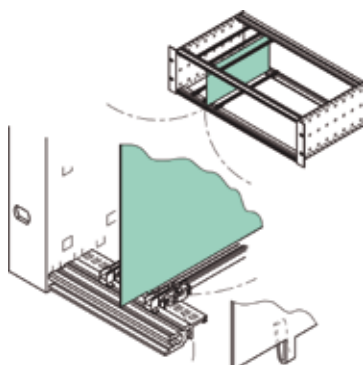
Model	Order no.	Note
RW/M 00384	86384031	3 U, 84 HP

Scope of delivery: 1 rear hood

Note: If the rear hood is used, the side panel must be 60 mm deeper than the rated dimension. Additional sizes on request. Mounting material BFS/M 0500 and EMC spring AP/M as accessories.



Interzoll Modul accessories

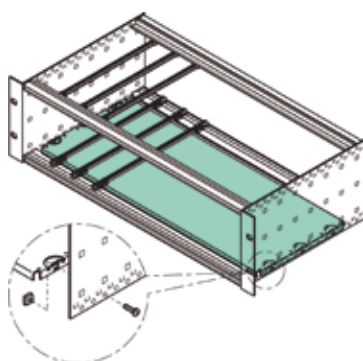


Partition, stainless steel, snaps onto the profiles

Model	Order no.	Note
TP/M 16300	86316032	Card depth 160, 3 U

Scope of delivery: 1 partition panel

Note: 2 mm space requirement on the construction side. Additional sizes on request.



Mounting panel, passivated aluminium, for fixing additional components

Model	Order no.	Note
MP/M 22042	86342223	Card depth 220, 42 HP
MP/M 22084	86384223	Card depth 220, 84 HP

Scope of delivery: 1 mounting panel

Note: Additional sizes on request. Mounting material BFS/M 0500 or 0600 as accessories. Use BFS/M 0300 for Internorm Stil.

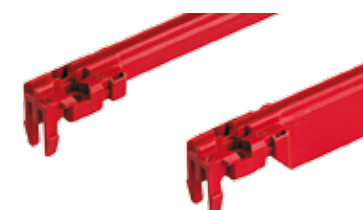


Card guides standard, one piece, plastic, UL 94 V0, red

Model	Order no.	Note
KF/M 80	86021008	Card depth 80 mm, groove width 2 mm
KF/M 160	86216010	Card depth 160 mm, groove width 2 mm
KF/M 220	86222010	Card depth 220 mm, groove width 2 mm
KF/M 160-2,5	86216020	Card depth 160 mm, groove width 2.5 mm
KF/M 220-2,5	86222020	Card depth 220 mm, groove width 2.5 mm

Scope of delivery: 1 card guide

Note: 80 mm long card guide for a plug-in unit with rear I/O acc. to DIN IEC 60297-3-101 / IEEE 1101.11. Fixing screws (only BN) BFS/M 0200 as accessory.



Card guides for coding block, one piece, plastic, UL 94 V0, red

Model	Order no.	Note
KF/M 160-COB	86021016	Card depth 160 mm, groove width 2 mm
KF/M 220-COB	86021022	Card depth 220 mm, groove width 2 mm
KF/M 160-COB-V	86022016	Card depth 160 mm, groove width 2 mm
KF/M 220-COB-V	86022022	Card depth 220 mm, groove width 2 mm
KF/M 280-COB-V	86022028	Card depth 280 mm, groove width 2 mm

Scope of delivery: 1 card guide

Note: Only for use in connection with coding block. V-design for heavy modules. Fixing screws (only BN) BFS/M 0200 as accessory.

Interzoll Modul accessories

Individual components for universal card guide, plastic, UL 94 V0, red, card guide profiles of natural-coloured anodised aluminium

Model	Order no.	Note
KF/M 000-K	86020000	Standard end pieces, groove width 2 mm
KF/M 000-K-COB	86020100	End pieces for coding block / card retainer, groove width 2 mm
KF/M 1000	86200020	Card guide profile (1000 mm), groove width 2 mm
KF/M 000-K-4,4"	86020200	End pieces for card height 4.4", groove width 2 mm
KF/M 000-COB-K-2,5	86020300	End pieces including coding block, groove width 2.5 mm
KF/M 1000-A-2,5	86200030	Card guide profile (1000 mm), groove width 2.5 mm

Scope of delivery: Profiles: 1 piece; end pieces: 10 pairs (right/left)

Note: End pieces ...4,4" are for circuit board height 4.4" (111.7 mm). Card earthing cannot be used with this type. Fixing screws (only BN) BFS/M 2400 as accessory. Fixing screws for the other types (only BN) BFS/M 0200 as accessories. Special profile lengths on request.



Card guide with IEEE coding, plastic, UL 94 V0, green for Compact PCI power supply units or SMD-placement plug-in unit

Model	Order no.	Note
KF/M 160-COB-0,1"	86316010	Card depth 160 mm, groove width 2 mm
KF/M 220-COB-0,1"	86322010	Card depth 220 mm, groove width 2 mm

Scope of delivery: 1 card guide

Note: Card guide acc. to IEEE with 0.1" sideways displacement. Fixing screws (only BN) BFS/M 0200 as accessory.



Card guides, one piece, for heavy PCBs and plug-in units, natural-coloured anodised aluminium

Model	Order no.	Note
KF/M 160-V-A	86416010	Card depth 160 mm, groove width 2 mm
KF/M 220-V-A	86422010	Card depth 220 mm, groove width 2 mm
KF/M 280-V-A	86428010	Card depth 280 mm, groove width 2 mm

Scope of delivery: 1 card guide

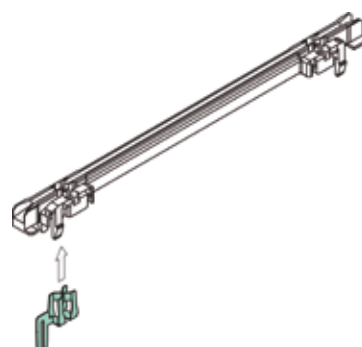
Note: Fixing screws for 160-V-A (only BN) BFS/M 2500 as accessory. Fixing screws for all other types (only BN) BFS/M 0200 as accessory.



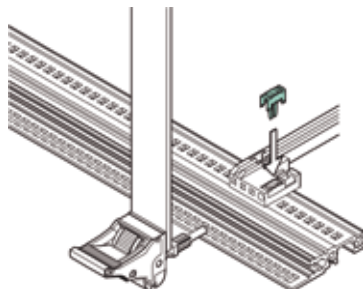
Card earthing, tin-plated steel, for contacting between board and subrack

Model	Order no.	Note
KE/M	86022100	Card earthing for circuit board

Scope of delivery: 20 card earthing units



Interzoll Modul accessories

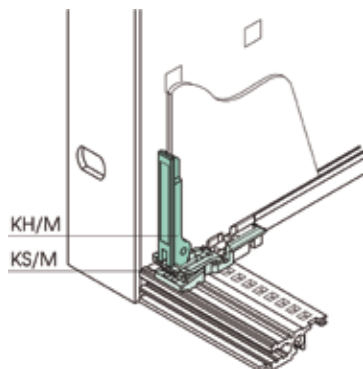


Card earthing, tin-plated steel, for contacting between circuit board and support system via ejector handle

Model	Order no.	Note
KE/M-IEEE	86022110	Card earthing via ejector handle

Scope of delivery: 20 card earthing units

Note: KE/M-IEEE can only be used with coding on the card guide (COB) and the ejector handle HGS/M1101-CO.

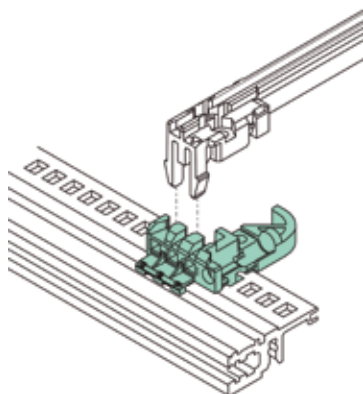


Card lever and card retainer, plastic, UL 94 V0, red, only for use with KF/M...COB (-V)

Model	Order no.	Note
KH/M	86022300	Card lever
KS/M	86022200	Card retainer

Scope of delivery: 1 card lever / 1 card retainer

Note: The card lever can only be used with the card retainer. Also for use on slot position 1. Minimum clearance for the guide rails: 3 HP.

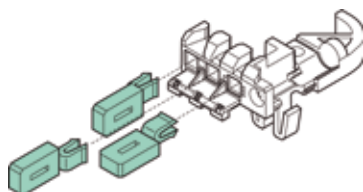


Coding blocks, plastic, UL 94 V0, only for use with ejector handle HGS/M 1101-CO

Model	Order no.	Note
COBU/M	86021100	Coding block, down
COBO/M	86021200	Coding block, up

Scope of delivery: 1 coding block

Note: Coding block acc. to DIN IEC 60297-3-103. For insertion into a profile rail, codable with coding pegs. Minimum clearance for the card guides: 4 HP.



Coding pegs, plastic, UL 94 V0, grey, for use in coding block COB and in ejector handle HGS/M 1101-CO

Model	Order no.
COK/M	86021300

Scope of delivery: 100 coding pegs

Note: Up to 3 coding pegs can be used in COB.. and HGS.. With a 3 U plug-in front panel there are max. 64 codings, and with a 6 U plug-in front panel there are max. 4096 codings.

Interzoll Modul accessories

Front profiles without lip, natural-coloured anodised aluminium, conductive contact surfaces, for installation behind full-width front panels

Model	Order no.	Note
PF/M 00042-OD	86542310	42 HP
PF/M 00063-OD	86563310	63 HP
PF/M 00084-OD	86584310	84 HP

Scope of delivery: 1 profile

Note: For installation behind a full-width front panel, e.g. 6 U.



Front profiles with short lip (standard), natural-coloured anodised aluminium, conductive contact surfaces

Model	Order no.	Note
PF/M 00042	86542320	42 HP
PF/M 00063	86563320	63 HP
PF/M 00084	86584320	84 HP

Scope of delivery: 1 profile



Front profiles for high mechanical loads, natural-coloured anodised aluminium, conductive contact surfaces, 2-hole fixing

Model	Order no.	Note
PF/M 00042-BN	86542330	42 HP
PF/M 00063-BN	86563330	63 HP
PF/M 00084-BN	86584330	84 HP

Scope of delivery: 1 profile



Front profiles for high mechanical loads and ejector handle acc. to DIN IEC 60297-3-102 / IEEE 1101.10, natural-coloured anodised aluminium, conductive contact surfaces, 2-hole fixing

Model	Order no.	Note
PF/M 00042-BN-HG	86542340	42 HP
PF/M 00063-BN-HG	86563340	63 HP
PF/M 00084-BN-HG	86584340	84 HP

Scope of delivery: 1 profile



Bus profiles, natural-coloured anodised aluminium, conductive contact surfaces, for backplane mounting with insulating strip

Model	Order no.	Note
PB/M 00042	86542410	42 HP
PB/M 00063	86563410	63 HP
PB/M 00084	86584410	84 HP

Scope of delivery: 1 profile



Interzoll Modul accessories



Bus profiles for high mechanical loads, natural-coloured anodised aluminium, conductive contact surfaces, with 2-hole fixing, for bus backplane mounting with insulating strips

Model	Order no.	Note
PB/M 00042-BN	86542420	42 HP
PB/M 00063-BN	86563420	63 HP
PB/M 00084-BN	86584420	84 HP

Scope of delivery: 1 profile



Bus profiles, natural-coloured anodised aluminium, conductive contact surfaces, for backplane mounting without insulating strip

Model	Order no.	Note
PBIS/M 00042	86542430	42 HP
PBIS/M 00063	86563430	63 HP
PBIS/M 00084	86584430	84 HP

Scope of delivery: 1 profile



Bus profiles for high mechanical loads, natural-coloured anodised aluminium, conductive contact surfaces, 2-hole fixing, for backplane mounting without insulating strip

Model	Order no.	Note
PBIS/M 00042-BN	86542440	42 HP
PBIS/M 00063-BN	86563440	63 HP
PBIS/M 00084-BN	86584440	84 HP

Scope of delivery: 1 profile



Double bus profiles, natural-coloured anodised aluminium, conductive contact surfaces, for bus PCB fixing with insulating strip

Model	Order no.	Note
PBD/M 00642	86542450	42 HP
PBD/M 00663	86563450	63 HP
PBD/M 00684	86584450	84 HP

Scope of delivery: 1 profile



Double bus profiles, natural-coloured anodised aluminium, conductive contact surfaces, for backplane mounting without insulating strip

Model	Order no.	Note
PBDIS/M 00642	86542460	42 HP
PBDIS/M 00663	86563460	63 HP
PBDIS/M 00684	86584460	84 HP

Scope of delivery: 1 profile

Interzoll Modul accessories

Rear profiles, natural-coloured anodised aluminium, conductive contact surfaces, for connectors acc. to DIN EN 60603-2 (formerly DIN 41612)

Model	Order no.	Note
PR/M 00042.12	86542510	42 HP
PR/M 00063.12	86563510	63 HP
PR/M 00084.12	86584510	84 HP

Scope of delivery: 1 profile



Rear profiles for high mechanical loads, natural-coloured anodised aluminium, conductive contact surfaces, 2-hole fixing, for connectors acc. to DIN EN 60603-2 (formerly DIN 41612)

Model	Order no.	Note
PR/M 00042.12-BN	86542520	42 HP
PR/M 00063.12-BN	86563520	63 HP
PR/M 00084.12-BN	86584520	84 HP

Scope of delivery: 1 profile



Double connector profiles, natural-coloured anodised aluminium, conductive contact surfaces, for connectors acc. to DIN EN 60603-2 (formerly DIN 41612)

Model	Order no.	Note
PSD/M 00642.12	86542610	42 HP
PSD/M 00663.12	86563610	63 HP
PSD/M 00684.12	86584610	84 HP

Scope of delivery: 1 profile



Snap profiles, natural-coloured anodised aluminium, conductive contact surfaces, for combined mounting and rear fitting of 80 mm Compact PCI units

Model	Order no.	Note
RP/M 00042	86542710	42 HP
RP/M 00063	86563710	63 HP
RP/M 00084	86584710	84 HP

Scope of delivery: 1 profile

Note: RP/M 00084 with notch.



Interzoll Modul accessories

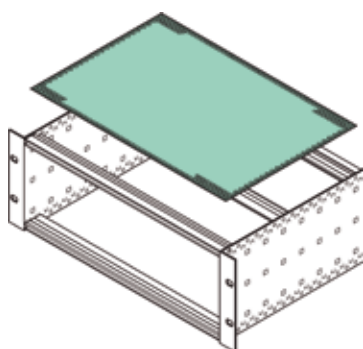


End profiles, passivated aluminium, for rear shielding, for use with all side panels

Model	Order no.	Note
RAP/M 00300	86503810	3 U
RAP/M 00400	86504810	4 U
RAP/M 00500	86505810	5 U
RAP/M 00600	86506810	6 U

Scope of delivery: 1 profile

Note: Mounting takes place with the profile rail fixing. Optional additional screwing with BFS/M 0600 and 1500. Can also be mounted on the front with the universal flange.

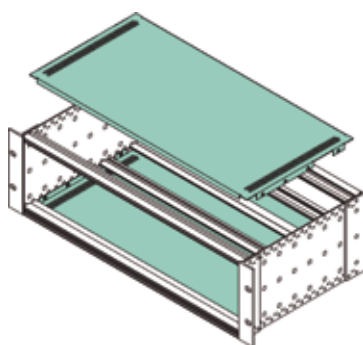


Insertable cover plates, perforated untreated aluminium, not for use with BN profiles

Model	Order no.	Note
AD/M 13042-L	86442132	Card depth 160, 42 HP
AD/M 13063-L	86463132	Card depth 160, 63 HP
AD/M 13084-L	86484132	Card depth 160, 84 HP
AD/M 19042-L	86442192	Card depth 220, 42 HP
AD/M 19063-L	86463192	Card depth 220, 63 HP
AD/M 19084-L	86484192	Card depth 220, 84 HP

Scope of delivery: 1 cover plate

Note: Fixing in the profile rail groove. Other versions on request.



Screwable EMC cover plates, with side notches for profile rails, depth 160, 220 and 280 mm

Model	Order no.	Note
ADGA/M 15042-L	86442154	Side panel depth 178, 42 HP
ADGA/M 15063-L	86463154	Side panel depth 178, 63 HP
ADGA/M 15084-L	86484154	Side panel depth 178, 84 HP
ADGA/M 21042-L	86442214	Side panel depth 238, 42 HP
ADGA/M 21063-L	86463214	Side panel depth 238, 63 HP
ADGA/M 21084-L	86484214	Side panel depth 238, 84 HP
ADGA/M 27042-L	86442274	Side panel depth 298, 42 HP
ADGA/M 27063-L	86463274	Side panel depth 298, 63 HP
ADGA/M 27084-L	86484274	Side panel depth 298, 84 HP
ADGA/M 33084-L	86484334	Side panel depth 358, 84 HP
ADGA/M 39084-L	86484394	Side panel depth 418, 84 HP
ADGA/M 45084-L	86484454	Side panel depth 478, 84 HP
ADGA/M 25042-L-Rear I/O	86442254	Side panel depth 275, 42 HP
ADGA/M 25084-L-Rear I/O	86484254	Side panel depth 275, 84 HP

Scope of delivery: 2 cover plates, mounting material

Note: 4 EMC springs AP/M are required for contacting to the profile rails.

Interzoll Modul accessories

Side panels Standard and Compact PCI, passivated aluminium without flange

Model	Order no.	Note
BSW/M 18300	86618031	3 U, depth 178
BSW/M 24300	86624031	3 U, depth 238
BSW/M 30300	86630031	3 U, depth 298
BSW/M 36300	86636031	3 U, depth 358
BSW/M 42300	86642031	3 U, depth 418
BSW/M 48300	86648031	3 U, depth 478
BSW/M 28300- Rear I/O	86628032	3 U, depth 275
BSW/M 18400	86618041	4 U, depth 178
BSW/M 24400	86624041	4 U, depth 238
BSW/M 30400	86630041	4 U, depth 298
BSW/M 36400	86636041	4 U, depth 358
BSW/M 42400	86642041	4 U, depth 418
BSW/M 48400	86648041	4 U, depth 478
BSW/M 18500	86618051	5 U, depth 178
BSW/M 24500	86624051	5 U, depth 238
BSW/M 30500	86630051	5 U, depth 298
BSW/M 36500	86636051	5 U, depth 358
BSW/M 42500	86642051	5 U, depth 418
BSW/M 48500	86648051	5 U, depth 478
BSW/M 18600	86618061	6 U, depth 178
BSW/M 24600	86624061	6 U, depth 238
BSW/M 30600	86630061	6 U, depth 298
BSW/M 36600	86636061	6 U, depth 358
BSW/M 42600	86642061	6 U, depth 418
BSW/M 48600	86648061	6 U, depth 478
BSW/M 28600-Rear I/O	86628062	6 U, depth 275

Scope of delivery: 1 side panel

Note: Side panel 3 and 6 U – rear I/O for Compact PCI systems with installation of 160 mm plug-in units on the front and 80 mm plug-in units on the rear acc. to DIN IEC 60297-3-101 / IEEE 1101.11.



Side panels with integrated flange for high mechanical loads, passivated aluminium, flange natural-coloured anodised on front

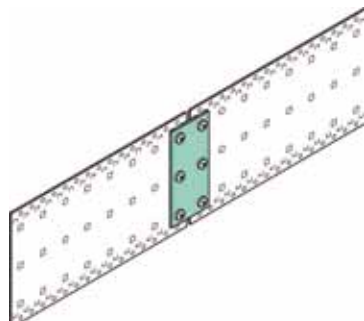
Model	Order no.	Note
BSW/M 18300-BN	86618033	3 U, depth 178
BSW/M 24300-BN	86624033	3 U, depth 238
BSW/M 30300-BN	86630033	3 U, depth 298

Scope of delivery: 1 side panel

Note: Flange types with holes for front handles and other sizes on request.



Interzoll Modul accessories

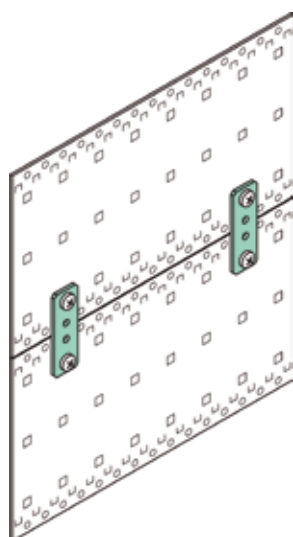


Connecting panels, passivated aluminium, for BSW/M side panels

Model	Order no.	Note
VP/M 3	86061003	3 U
VP/M 6	86061006	6 U

Scope of delivery: 1 connecting panel

Note: Subrack side panels can be connected to each other with the connecting panel, which lengthens them. Mounting material BFS/M 0600 and 01500 as accessories.



Connecting brackets, diecast zinc, for BSW/M side panels

Model	Order no.
VB/M	86062000

Scope of delivery: 1 connection bracket

Note: Subracks can be mounted above each other with the connecting panel. Screwing either via the profile rail fixing, or separately in any position required. Mounting material BFS/M 0600 and 01500 as accessory. 4 pieces are required for each subrack.



Flanges for control panel mounting, natural-coloured anodised, for visually attractive closure to switch panel top and bottom.

Model	Order no.	Note
FLS/M 00042	86742004	42 HP
FLS/M 00063	86763004	63 HP
FLS/M 00084	86784004	84 HP

Scope of delivery: 1 flange

Note: One flange each is screwed for up and down on the front profile. Mounting material BFS/M 0200 as accessory.

Interzoll Modul accessories

Flanges, front natural-coloured anodised, rear passivated, for BSW/M

Model	Order no.	Note
FL/M 00300	86700031	3 U
FL/M 00400	86700041	4 U
FL/M 00500	86700051	5 U
FL/M 00600	86700061	6 U

Scope of delivery: 1 flange

Note: Mounting is via the profile rail fixing. Additional fixing with BFS/M 0600 and 1500.



Flanges with holes for fixing handle, front natural-coloured anodised, rear passivated, for BSW /M

Model	Order no.	Note
FLG/M 00300	86700032	3 U
FLG/M 00600	86700062	6 U

Scope of delivery: 1 flange

Note: Mounting is via the profile rail fixing. Additional fixing with BFS/M 0600 and 1500.



Flanges, universal, front natural-coloured anodised, rear passivated, for BSW/M

Model	Order no.	Note
FLU/M 00300	86700033	3 U
FLU/M 00400	86700043	4 U
FLU/M 00500	86700053	5 U
FLU/M 00600	86700063	6 U

Scope of delivery: 1 flange

Note: Mounting is via the profile rail fixing or, optionally, separately in a 30 mm grid. Mounting material BFS/M 0600 and 1500 as accessories.



Handles for subracks, natural-coloured anodised aluminium

Model	Order no.	Note
GR/M 00300	86700035	3 U
GR/M 00600	86700065	6 U

Scope of delivery: 1 handle

Note: Mounting material BFS/M 0700 as accessories





Interzoll Modul accessories

Interzoll Modul mounting material

Model	Order no.	Note
BFS/M 0100	86000010	SHR Z M 4x14-S0, toothed, galvanised steel, torx 20, for all Interzoll Modul profiles
BFS/M 0200	86000020	SHR Z KT 2.5x9.3, galvanised steel, torx 8, for FLS/M, TST/M, KF/M...
BFS/M 0300	86000030	SHR Z M 2.5x7, galvanised steel, torx 8, for ZS/M
BFS/M 0400	86000040	SHR Z M 2.5x10, galvanised steel, torx 8, for LS/M
BFS/M 0500	86000050	SHR Z M 4x6-S0, toothed, anodised steel, torx 20, for EMC spring AS/M, MP/M, RW/M
BFS/M 0600	86000060	MU M 4-4KT-S0, galvanised steel, for VB/M, VP/M, TL/M, TLB/M, MP/M, RAP/M
BFS/M 0700	86000070	SHR S M 5x12, galvanised steel, recessed screw head, for GR/M
BFS/M 0800	86000080	SHR S M 4x5, galvanised steel, torx 20, for TL/M, TLB/M
BFS/M 0900	86000090	SHR S M 4x14-S0, toothed, torx 20, anodised steel, for TST/M
BFS/M 1000	86000100	SHR Z M 2.5x12, galvanised steel, slotted, for LKH/M 02, 03, 04, 05
BFS/M 1100	86000110	SHR S M 2.5x8, galvanised steel, cross-head, for LKH/M 06, 07
BFS/M 1200	86000120	SHB FED 2.6, anodised steel, for LKH/M 03, 06, 07
BFS/M 1300	86000130	SHR Z M 2.5x4, galvanised steel, cross-head, for LKH/M 06, 07
BFS/M 1400	86000140	RONT B 2.5x0.25x5, for LKH/M 08
BFS/M 1500	86000150	SHR Z M 4x6-S0 countersink cone, galvanised steel, torx 20, for VB/M, VP/M, RAP/M
BFS/M 1600	86000160	SHR Z M 2.5x12.3x6.5-SP, nickel-plated steel, for front panels, pozidrive screws
BFS/M 1700	86000170	SHR Z M 2.5x12.3x6.5-SP, nickel-plated steel, for front panels, torx 8
BFS/M 1800	86000180	MU M 2.5-4KT, galvanised steel, for FX/M
BFS/M 1900	86000190	SHR Z M 2.5 x 8, anodised steel, cross-head, for FX/M, LKH/M 03
BFS/M 2000	86000200	MU M 2.5-6KT, galvanised steel, for LKH/M 02
BFS/M 2100	86000210	SHR S M 2.5x8, galvanised steel, cross-head, for ST/M (-EMV), LKH/M 02, 03, 04
BFS/M 2200	86000220	SHR R M 2.5x12.3x6.5-SPx18.3, nickel-plated steel, for front panels
BFS/M 2400	86000240	SHR S KT 2.5x7.3, galvanised steel, torx 20, for KF/M 000-K-4.4"
BFS/M 2500	86000250	SHR Z KT 2.7x7.3, galvanised steel, torx 20, for KF/M 160-V-A
BFS/M 2600	86000260	SHR Z M 2.5x16, galvanised steel, recessed screw head, for LKH/M 02, 03, 04
BFS/M 2700	86000270	SHR R M 2.5x12.3x6.5-SPx25.3, anodised steel, for front panels and PF/M with long lip
BFS/M2800	86000280	SHR Z M4x6-F-S0, toothed, torx 20, for ADGA/M

Scope of delivery: 20 pieces

Note: Use torx screw drivers TX 20 and TX 8.

Interzoll 3 U

Subrack, 3 U, for backplanes (.Pi) and connectors, DIN EN 60603-2 (.12)

Model	Order no.	B	C	b1	Note
BGT 18340.Pi	53183420	269,24	178,24	213,36	42 HP
BGT 24340.Pi	53243420	269,24	238,24	213,36	42 HP
BGT 30340.Pi	53303420	269,24	298,24	213,36	42 HP
BGT 18360.Pi	53183620	375,92	178,24	320,04	63 HP
BGT 24360.Pi	53243620	375,92	238,24	320,04	63 HP
BGT 30360.Pi	53303620	375,92	298,24	320,04	63 HP
BGT 18380.Pi	53183820	482,6	178,24	426,72	84 HP
BGT 24380.Pi	53243820	482,6	238,24	426,72	84 HP
BGT 30380.Pi	53303820	482,6	298,24	426,72	84 HP
BGT 18340.12	53183400	269,24	178,24	213,36	42 HP
BGT 24340.12	53243400	269,24	238,24	213,36	42 HP
BGT 30340.12	53303400	269,24	298,24	213,36	42 HP
BGT 18360.12	53183600	375,92	178,24	320,04	63 HP
BGT 24360.12	53243600	375,92	238,24	320,04	63 HP
BGT 30360.12	53303600	375,92	298,24	320,04	63 HP
BGT 18380.12	53183800	482,6	178,24	426,72	84 HP
BGT 24380.12	53243800	482,6	238,24	426,72	84 HP
BGT 30380.12	53303800	482,6	298,24	426,72	84 HP

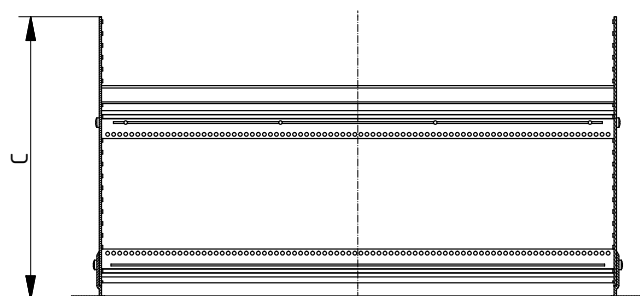
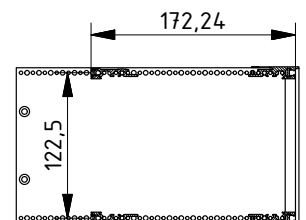
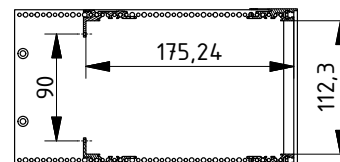
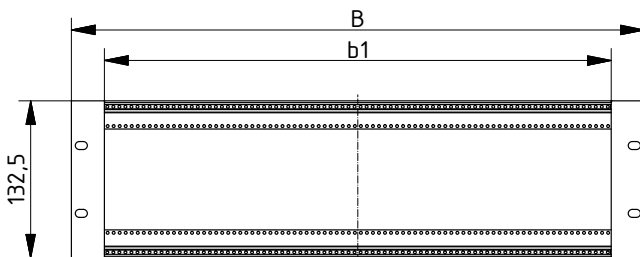


Scope of delivery: 2 side panels, 2 flanges, 2 front profiles including tapped strips, 2 bus profiles including tapped strips (.Pi) / 2 rear profiles (.12), mounting material

Note: Subrack with handle on request.

BGT12

BGTPi



Z-2903312

Interzoll 3 U



Subrack with profile side panel, 3 U, for backplanes (.Pi) and connector DIN EN 60603-2 (.12)

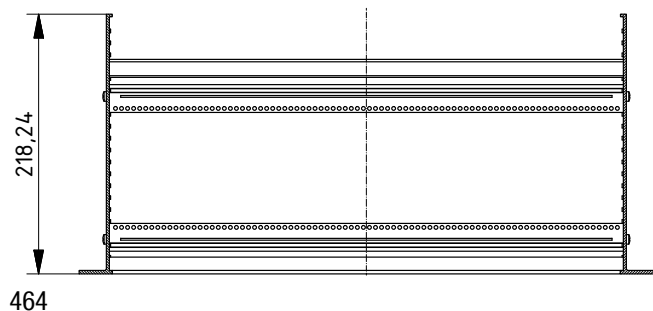
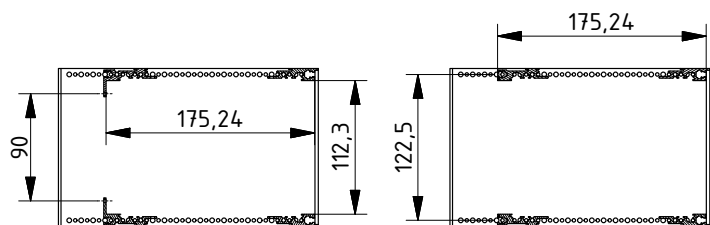
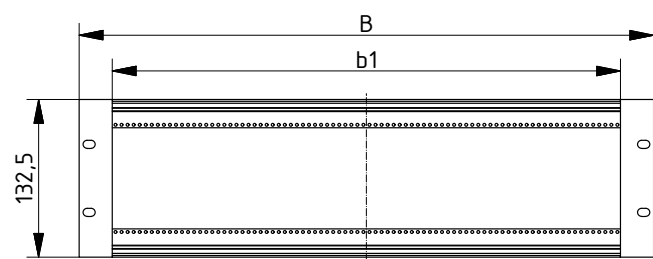
Model	Order no.	B	b1	Note
BGT 22340.Pi	53223420	269,24	213,36	42 HP
BGT 22360.Pi	53223620	375,92	320,04	63 HP
BGT 22380.Pi	53223820	482,6	426,72	84 HP
BGT 22340.12	53223400	269,24	213,36	42 HP
BGT 22360.12	53223600	375,92	320,04	63 HP
BGT 22380.12	53223800	482,6	426,72	84 HP

Scope of delivery: 2 profile side walls with integrated flange, 2 front profiles, 2 bus profiles (.Pi) / 2 rear profiles (.12), mounting material

Note: Tapped strips as accessories. Backplane mounting without insulating strips. Subrack with handle on request.

BGT 22... .12

BGT 22... .Pi



Z-2903313

Interzoll 3 U

Subrack with profile side panel, 3 U, for backplanes or connector DIN EN 60603-2 for high mechanical load, tested to Federal Railway standard BN 411 002

Model	Order no.	B	b1	Note
BGT 22340.Pi-BN	53223450	269,24	213,36	42 HP
BGT 22360.Pi-BN	53223650	375,92	320,04	63 HP
BGT 22380.Pi-BN	53223850	482,6	426,72	84 HP
BGT 22340.12-BN	53223460	269,24	213,36	42 HP
BGT 22360.12-BN	53223660	375,92	320,04	63 HP
BGT 22380.12-BN	53223860	482,6	426,72	84 HP

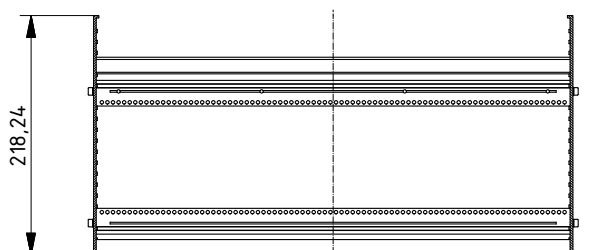
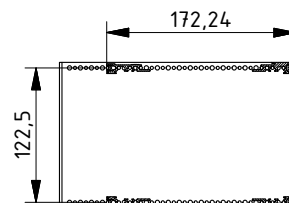
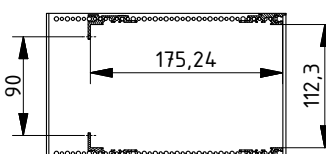
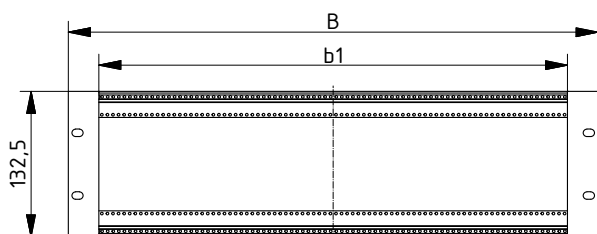
Scope of delivery: 2 profile side walls with integrated flanges, 2 front profiles including tapped strips, 2 bus profiles including tapped strips (.Pi) / 2 rear profiles (.12), mounting material

Note: Tested to Federal Railway standard BN 411 002. Approved for all electronic equipment on rail and bus vehicles. Approval test IABG-Ottobrunn for type BGT 22380.Pi/12-BN.



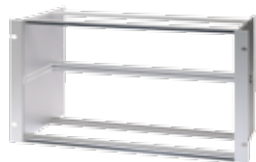
BGT 22... .12-BN

BGT 22... .Pi-BN



Z-2903314

Interzoll 6 U

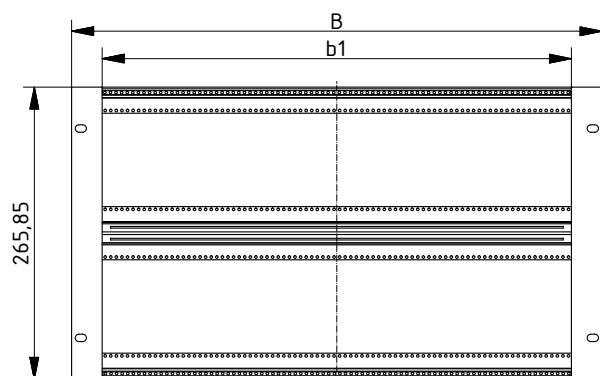


Subrack, 6 U, for backplanes (.Pi) and connectors, DIN EN 60603-2 (.12)

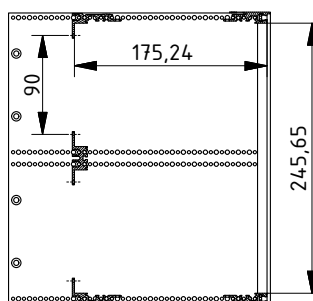
Model	Order no.	B	C	b1	Note
BGT 18640.Pi	53186420	269,24	178,24	213,36	42 HP
BGT 24640.Pi	53246420	269,24	238,24	213,36	42 HP
BGT 30640.Pi	53306420	269,24	298,24	213,36	42 HP
BGT 18660.Pi	53186620	375,92	178,24	320,04	63 HP
BGT 24660.Pi	53246620	375,92	238,24	320,04	63 HP
BGT 30660.Pi	53306620	375,92	298,24	320,04	63 HP
BGT 18680.Pi	53186820	482,6	178,24	426,72	84 HP
BGT 24680.Pi	53246820	482,6	238,24	426,72	84 HP
BGT 30680.Pi	53306820	482,6	298,24	426,72	84 HP
BGT 18640.12	53186400	269,24	178,24	213,36	42 HP
BGT 24640.12	53246400	269,24	238,24	213,36	42 HP
BGT 30640.12	53306400	269,24	298,24	213,36	42 HP
BGT 18660.12	53186600	375,92	178,24	320,04	63 HP
BGT 24660.12	53246600	375,92	238,24	320,04	63 HP
BGT 30660.12	53306600	375,92	298,24	320,04	63 HP
BGT 18680.12	53186800	482,6	178,24	426,72	84 HP
BGT 24680.12	53246800	482,6	178,24	426,72	84 HP
BGT 30680.12	53306800	482,6	298,24	426,72	84 HP

Scope of delivery: 2 side panels, 2 flanges, 2 front profiles including tapped strips, 2 bus profiles and 1 double bus profile including tapped strips (.Pi) / 2 rear profiles and 1 double connector profile (.12), mounting material

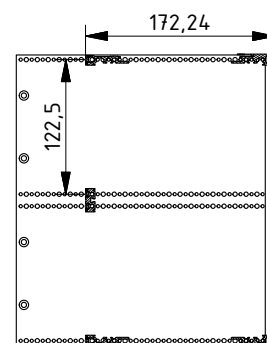
Note: Subrack with handle on request.



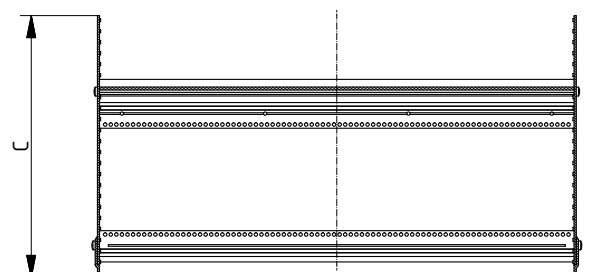
BGT12



BGTPi



Z-2903306



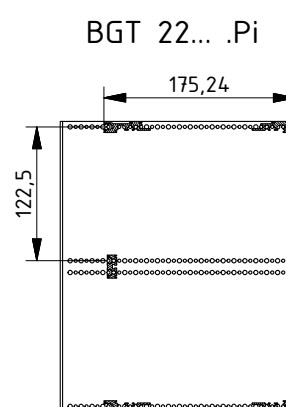
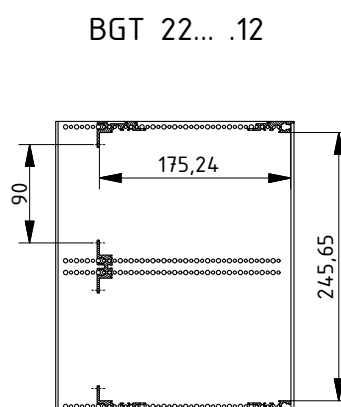
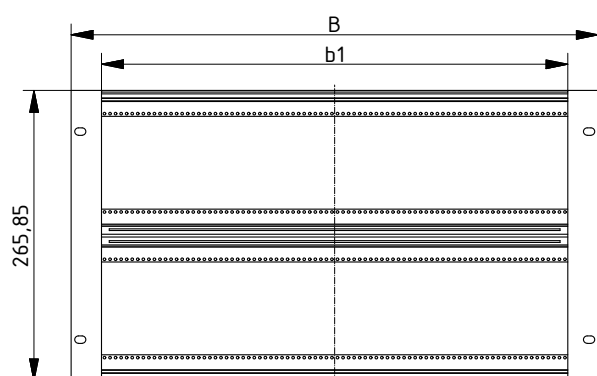
Interzoll 6 U

Subrack with profile side panel, 6 U, for backplanes (.Pi) and connector DIN EN 60603-2 (.12)

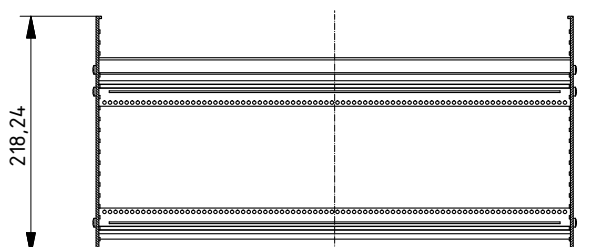
Model	Order no.	B	b1	Note
BGT 22640.Pi	53226420	269,24	213,36	42 HP
BGT 22660.Pi	53226620	375,92	320,04	63 HP
BGT 22680.Pi	53226820	482,6	426,72	84 HP
BGT 22640.12	53226400	269,24	213,36	42 HP
BGT 22660.12	53226600	375,92	320,04	63 HP
BGT 22680.12	53226800	482,6	426,72	84 HP

Scope of delivery: 2 profile side walls with integrated flange, 2 front profiles, 2 bus profiles and 1 double bus profile (Pi.) / 2 rear profiles and 1 double connector profile (.12), mounting material

Note: Tapped strips as accessories. Backplane mounting without insulating strips. Subrack with handle on request.



Z-2903307



Interzoll accessories



Tapped stripe, galvanised steel, M2.5, 7 x 2 mm, for part front panel fixing

Model	Order no.	Note
GS 00021-I	54000211	21 HP
GS 00042-I	54000421	42 HP
GS 00063-I	54000631	63 HP
GS 00084-I	54000841	84 HP

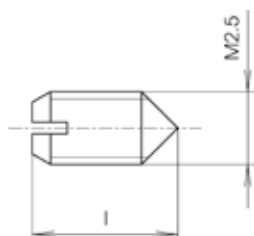
Scope of delivery: 2 tapped strips



Tapped stripe, galvanised steel, M2.5, 5 x 1.5 mm, for horizontal profile grooves and rear fixing of backplanes, insulating strips and Z rails

Model	Order no.	Note
GS 00005-II	54005000	5 HP
GS 00021-II	54000212	21 HP
GS 00042-II	54000422	42 HP
GS 00063-II	54000632	63 HP
GS 00084-II	54000842	84 HP

Scope of delivery: 2 tapped strips



Slotted set screw M2.5 x 8 / M2.5 x 5, V2A, for positioning and earthing the tapped stripe

Model	Order no.	Note
GSE-5	54700390	Length 5 mm
GSE-8	54700395	Length 8 mm

Scope of delivery: 10 slotted set screws

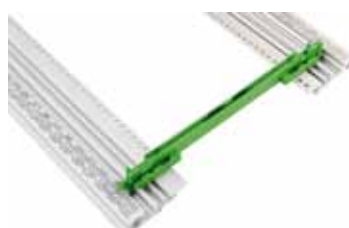


Insulated plastic, UL 94 V1, for insulated fixing of backplanes

Model	Order no.	Note
IS 00021	54000121	21 HP
IS 00042	54000142	42 HP

Scope of delivery: 2 insulating strips

Note: To achieve the necessary insertion depth when using bus profile rails.



Card guides, one and three parts, plastic, UL 94 V1 green

Model	Order no.	Note
KF 160	54700160	Card depth 160, one piece
KF 220-K	54700225	Card depth 220, three pieces

Scope of delivery: 10 card guides

Note: Snap-in / optionally screwable with GS...II and BFS 0300. Three-part card guide in special lengths on request.

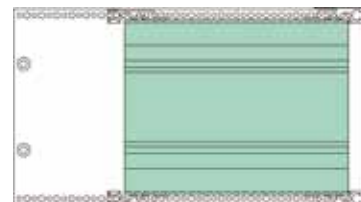
Interzoll accessories

Partition, 3 U, screwable, with slots for GS...II, natural-coloured anodised aluminium, for separating defined sections.

Model	Order no.	Note
TP 16300	54016300	Card depth 160, 3 U

Scope of delivery: 1 partition including mounting material

Note: Integrated mounting grooves for GS...II. Additional sizes on request.



Side panels, passivated aluminium, without flange

Model	Order no.	Note
BSW 18300	54018300	3 U, depth 178
BSW 24300	54024300	3 U, depth 238
BSW 30300	54030300	3 U, depth 298
BSW 18600	54018600	6 U, depth 178
BSW 24600	54024600	6 U, depth 238
BSW 30600	54030600	6 U, depth 298

Scope of delivery: 1 side panel

Note: Additional types, including with handle, on request.



Side panels, natural-coloured anodised aluminium, with integrated flange

Model	Order no.	Note
BSW 22300	54022030	3 U, depth 218
BSW 22600	54022600	6 U, depth 218

Scope of delivery: 1 side panel

Note: Additional types, including with handle, on request.



Plain cover plates, galvanised lacquered sheet steel, light grey

Model	Order no.	C	Note
ADG 06042	54960420	63	42 HP, for BGT 24... with EPS...-I
ADG 06063	54960630	63	63 HP, for BGT 24... with EPS...-I
ADG 06084	54960840	63	84 HP, for BGT 24... with EPS...-I
ADG 12042	54912420	123	42 HP, for BGT 18/30... with EPS...-I
ADG 12063	54912630	123	63 HP, for BGT 18/30... with EPS...-I
ADG 12084	54912840	123	84 HP, for BGT 18/30... with EPS...-I
ADG 18042	54918420	183	42 HP, for BGT 24/30... with EPS...-I
ADG 18063	54918630	183	63 HP, for BGT 24/30... with EPS...-I
ADG 18084	54918840	183	84 HP, for BGT 24/30... with EPS...-I

Scope of delivery: 1 cover plate

Note: On the BGT 22..., the ADG is inserted from the side. Clamp profile set EPS is required for mounting on all other subracks. C = depth in mm.



Interzoll accessories



Perforated cover plates, galvanised lacquered sheet steel, light grey, hole dia. 2.5 mm

Model	Order no.	C	Note
ADG 06042-L	54960421	63	42 HP, for BGT 24... with EPS...-I
ADG 06063-L	54960631	63	63 HP, for BGT 24... with EPS...-I
ADG 06084-L	54960841	63	84 HP, for BGT 24... with EPS...-I
ADG 12042-L	54912421	123	42 HP, for BGT 18/30... with EPS...-I
ADG 12063-L	54912631	123	63 HP, for BGT 18/30... with EPS...-I
ADG 12084-L	54912841	123	84 HP, for BGT 18/30... with EPS...-I
ADG 18042-L	54918421	183	42 HP, for BGT 24/30... with EPS...-I
ADG 18063-L	54918631	183	63 HP, for BGT 24/30... with EPS...-I
ADG 18084-L	54918841	183	84 HP, for BGT 24/30... with EPS...-I

Scope of delivery: 1 cover plate

Note: On the BGT 22..., the ADG is inserted from the side. Clamp profile set EPS is required for mounting on all other subracks. C = depth in mm.



Clamp profile sets, natural-coloured anodised aluminium, for screwing on of the cover plates

Model	Order no.	Note
EPS 00042	54002420	42 HP
EPS 00063	54002630	63 HP
EPS 00084	54002840	84 HP

Scope of delivery: 2 clamp profiles including mounting material



Clamp profile sets-I, natural-coloured anodised aluminium, for screwing on 2 cover plates behind each other

Model	Order no.	Note
EPS 00042-I	54002421	42 HP
EPS 00063-I	54002631	63 HP
EPS 00084-I	54002841	84 HP

Scope of delivery: 2 clamp profiles, 2 front profiles, mounting material

Note: Front profiles for rear ADG mounting and cover.



Front profiles, natural-coloured anodised aluminium

Model	Order no.	Note
PF 00021	54200021	21 HP
PF 00042	54200042	42 HP
PF 00063	54200063	63 HP
PF 00084	54200084	84 HP

Scope of delivery: 1 front profile

Note: Additional sizes on request.

Interzoll accessories

Double front profiles, natural-coloured anodised aluminium, for dividing a BGT 6 U into 2 x 3 U

Model	Order no.	Note
PFD 00021	54210021	21 HP
PFD 00042	54210042	42 HP
PFD 00063	54210063	63 HP
PFD 00084	54210084	84 HP

Scope of delivery: 1 double front profile

Note: Additional sizes on request.



Bus profiles, natural-coloured anodised aluminium, for indirect backplane fixing with insulating strips

Model	Order no.	Note
PB 00021	54300021	21 HP
PB 00042	54300042	42 HP
PB 00063	54300063	63 HP
PB 00084	54300084	84 HP

Scope of delivery: 1 bus profile

Note: Additional sizes on request.



Bus profiles, natural-coloured anodised aluminium, for fixing backplanes without insulating strips, with integrated clamp profile for ADG

Model	Order no.	Note
PBK 00021	54300121	21 HP
PBK 00042	54300142	42 HP
PBK 00063	54300163	63 HP
PBK 00084	54300184	84 HP

Scope of delivery: 1 bus profile

Note: Additional sizes on request.



Double bus profiles for BGT 6 U, natural-coloured anodised aluminium, for fixing backplanes using insulating strips

Model	Order no.	Note
PBD 00642	54300642	42 HP
PBD 00663	54300663	63 HP
PBD 00684	54300684	84 HP

Scope of delivery: 1 double bus profile

Note: Additional sizes on request.



Double bus profiles, natural-coloured anodised aluminium, for fitting of backplanes in BGT 6 U divided into 2 x 3 U

Model	Order no.	Note
PBD 00342	54300342	42 HP
PBD 00363	54300363	63 HP
PBD 00384	54300384	84 HP

Scope of delivery: 1 double bus profile

Note: Additional sizes on request.



Interzoll accessories



**Rear profiles, natural-coloured anodised aluminium,
for connectors acc. to DIN EN 60603-2 (previously DIN 41612)**

Model	Order no.	Note
PR 00021.12	54302100	21 HP
PR 00042.12	54304200	42 HP
PR 00063.12	54306300	63 HP
PR 00084.12	54308400	84 HP

Scope of delivery: 1 rear profile

Note: Additional sizes on request.



**Rear profiles, natural-coloured anodised aluminium,
for connectors acc. to DIN EN 60603-2 (previously DIN 41612), with integrated clamp profile**

Model	Order no.	Note
PRK 00021.12	54362100	21 HP
PRK 00042.12	54364200	42 HP
PRK 00063.12	54366300	63 HP
PRK 00084.12	54368400	84 HP

Scope of delivery: 1 rear profile

Note: Additional sizes on request.



**Double rear profiles, natural-coloured anodised aluminium,
for connectors acc. to DIN EN 60603-2 (previously DIN 41612)**

Model	Order no.	Note
PSD 00642.12	54306420	42 HP
PSD 00663.12	54306630	63 HP
PSD 00684.12	54306840	84 HP

Scope of delivery: 1 double rear profile

Note: Additional sizes on request.



Snap profiles, natural-coloured anodised aluminium, for holding card guides

Model	Order no.	Note
RP 00021	54400021	21 HP
RP 00042	54400042	42 HP
RP 00063	54400063	63 HP
RP 00084	54400084	84 HP

Scope of delivery: 1 snap profile

Note: Additional sizes on request.



**Double snap profiles, natural-coloured anodised aluminium,
for dividing a BGT 6 U into 2 x 3 U, snaps into PSD or PBD**

Model	Order no.	Note
RPD 00321	54400321	21 HP
RPD 00342	54400342	42 HP
RPD 00363	54400363	63 HP
RPD 00384	54400384	84 HP

Scope of delivery: 1 double snap profile

Note: Additional sizes on request.

Interzoll accessories

End profile on rear, natural-coloured anodised aluminium, for subrack side panels

Model	Order no.	Note
RAP 00300	54000300	3 U
RAP 00600	54000600	6 U

Scope of delivery: 2 end profiles

Note: Additional sizes on request.



Z-rails, natural-coloured anodised aluminium, for connectors acc. to DIN EN 60603-2 (formerly DIN 41612)

Model	Order no.	Note
ZS 00021	54001210	21 HP
ZS 00042	54001420	42 HP
ZS 00063	54001630	63 HP
ZS 00084	54001840	84 HP

Scope of delivery: 2 Z-rails

Note: For conversion or extension of a backplane level to a mounting level for connectors acc. to DIN EN 60603-2. Additional sizes on request.



Adapter profiles, natural-coloured anodised aluminium, for extending the insertion depth acc. to DIN EN 60603-2, types F, G, U, V

Model	Order no.	Note
AP 00021	54000210	21 HP
AP 00042	54000420	42 HP
AP 00063	54000630	63 HP
AP 00084	54000840	84 HP

Scope of delivery: 2 adapter profiles

Note: Additional sizes on request.



Integrated clamp profiles, natural-coloured anodised aluminium, for fixing the ADG cover plates to the subrack

Model	Order no.	Note
KL 00042	54600042	42 HP
KL 00063	54600063	63 HP
KL 00084	54600084	84 HP

Scope of delivery: 1 integrated clamp profile

Note: For use for profiles PB, PR, RP. Additional sizes on request.



Flanges 3 / 6 U for mounting with subrack side panels

Model	Order no.	Note
FL 00300	54600300	3 U
FL 00600	54600600	6 U

Scope of delivery: 2 flanges



Interzoll accessories



Flanges 3 / 6 U for mounting with subrack side panels with handle drill holes

Model	Order no.	Note
FLG 00300	54600310	3 U
FLG 00600	54600610	6 U

Scope of delivery: 2 flanges



Handles for subracks, natural-coloured anodised aluminium

Model	Order no.	Note
GR 00300	54600320	3 U
GR 00600	54600620	6 U

Scope of delivery: 2 handles including mounting material

Interzoll mounting material

Model	Order no.	Note
KM 5	54700350	M5 cage nut for fitting of BGT / FPS in the enclosure or cabinet
KS 5	54700360	M5 cross-head screw for fitting of BGT / FPS in the enclosure or cabinet
KU 5	54700370	Washer for KS 5, nickel-plated brass
BFS 0100	54700010	Recessed head screw M 4x12 for Interzoll profiles
BFS 0200	54700020	Countersunk screw M 3x5, cross-head, for fixing of clamp profiles
BFS 0300	54700030	Cheese-head screw M 2.5x8, slotted, for fixing of card earthing, card guide, insulating strip and Z rails
BFS 0400	54700031	Recessed head screws M 4x12 for Interzoll-Plus profiles
BFS 0500	54700032	SHR Z KA 30x6, cross-head, for fixing the cover plates in the Interzoll-Plus enclosure
BFS 0600	54700033	Allen cheese-head screw M 4x20 for profile rails in railway-tested version
BFS 0700	54700034	Securing washer, Ø 4.3 mm, Allen screw BFS 0600

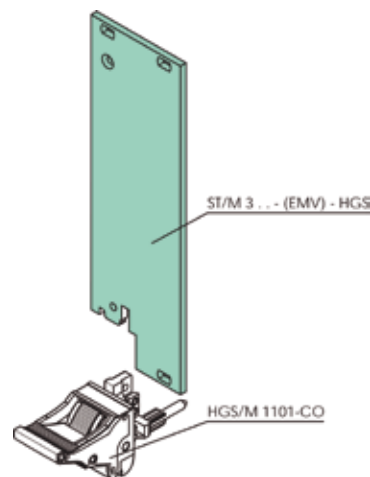
Scope of delivery: KM, KS and KU 10 pieces; BFS 20 pieces

Part front panels / plug-in units

Plug-in front panels with ejector handle, screwable, front natural-coloured anodised aluminium, passivated on rear, 3 / 6 U

Model	Order no.	Note
ST/M 304-HGS	86804035	3 U, 4 HP
ST/M 305-HGS	86805035	3 U, 5 HP
ST/M 306-HGS	86806035	3 U, 6 HP
ST/M 307-HGS	86807035	3 U, 7 HP
ST/M 308-HGS	86808035	3 U, 8 HP
ST/M 310-HGS	86810035	3 U, 10 HP
ST/M 312-HGS	86812035	3 U, 12 HP
ST/M 604-HGS	86804065	6 U, 4 HP
ST/M 605-HGS	86805065	6 U, 5 HP
ST/M 606-HGS	86806065	6 U, 6 HP
ST/M 607-HGS	86807065	6 U, 7 HP
ST/M 608-HGS	86808065	6 U, 8 HP
ST/M 610-HGS	86810065	6 U, 10 HP
ST/M 612-HGS	86812065	6 U, 12 HP

Scope of delivery: 1 plug-in front panel

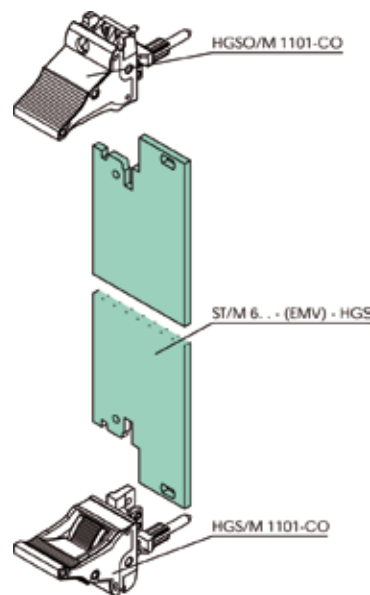


Plug-in front panels, EMC, for ejector handle, screwable, front natural-coloured anodised aluminium, passivated on rear, 3 / 6 U, designs with slots for EMC springs

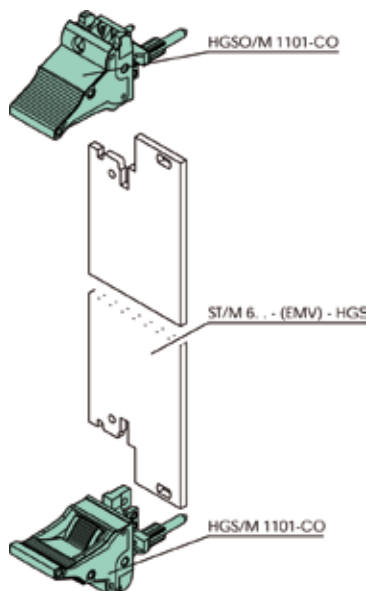
Model	Order no.	Note
ST/M 304-EMV-HGS	86804036	3 U, 4 HP
ST/M 305-EMV-HGS	86805036	3 U, 5 HP
ST/M 306-EMV-HGS	86806036	3 U, 6 HP
ST/M 307-EMV-HGS	86807036	3 U, 7 HP
ST/M 308-EMV-HGS	86808036	3 U, 8 HP
ST/M 310-EMV-HGS	86810036	3 U, 10 HP
ST/M 312-EMV-HGS	86812036	3 U, 12 HP
ST/M 604-EMV-HGS	86804066	6 U, 4 HP
ST/M 605-EMV-HGS	86805066	6 U, 5 HP
ST/M 606-EMV-HGS	86806066	6 U, 6 HP
ST/M 607-EMV-HGS	86807066	6 U, 7 HP
ST/M 608-EMV-HGS	86808066	6 U, 8 HP
ST/M 610-EMV-HGS	86810066	6 U, 10 HP
ST/M 612-EMV-HGS	86812066	6 U, 12 HP

Scope of delivery: 1 plug-in front panel

Note: EMC spring -FP/M as Interzoll Modul accessory.



Part front panels / plug-in units



Ejector handles for 3 / 6 U plug-in front panels (EMC), screwable

Model	Order no.	Note
HGS/M 1101-CO	86081011	With coding, down
HGSO/M 1101-CO	86081111	With coding, for use with 6 U up

Scope of delivery: 1 ejector handle

Note: Two handles are required for 6 U plug-in front panels. For coding pegs, see accessories.

Fixing clamp, plastic, UL 94 V0 black, for fixing the board to the 6 U front panel given high withdrawal forces in connection with the ejection function

Model	Order no.
FXK/M	86081510

Scope of delivery: 10 fixing clamps



Part front panels, natural-coloured anodised aluminium, passivated on rear

Model	Order no.	Note
TF/M 221	86821023	2 U, 21 HP
TF/M 242	86842023	2 U, 42 HP
TF/M 263	86863023	2 U, 63 HP
TF/M 284	86884023	2 U, 84 HP
TF/M 302	86802033	3 U, 2 HP
TF/M 303	86803033	3 U, 3 HP
TF/M 304	86804033	3 U, 4 HP
TF/M 305	86805033	3 U, 5 HP
TF/M 306	86806033	3 U, 6 HP
TF/M 307	86807033	3 U, 7 HP
TF/M 308	86808033	3 U, 8 HP
TF/M 309	86809033	3 U, 9 HP
TF/M 310	86810033	3 U, 10 HP
TF/M 312	86812033	3 U, 12 HP
TF/M 314	86814033	3 U, 14 HP
TF/M 318	86818033	3 U, 18 HP
TF/M 320	86820033	3 U, 20 HP
TF/M 321	86821033	3 U, 21 HP
TF/M 327	86827033	3 U, 27 HP
TF/M 328	86828033	3 U, 28 HP
TF/M 330	86830033	3 U, 30 HP
TF/M 340	86840033	3 U, 40 HP
TF/M 342	86842033	3 U, 42 HP

Part front panels / plug-in units

Part front panels, natural-coloured anodised aluminium, passivated on rear

Model	Order no.	Note
TF/M 349	86849033	3 U, 49 HP
TF/M 362	86862033	3 U, 62 HP
TF/M 363	86863033	3 U, 63 HP
TF/M 384	86884033	3 U, 84 HP
TF/M 442	86842043	4 U, 42 HP
TF/M 463	86863043	4 U, 63 HP
TF/M 484	86884043	4 U, 84 HP
TF/M 602	86802063	6 U, 2 HP
TF/M 604	86804063	6 U, 4 HP
TF/M 605	86805063	6 U, 5 HP
TF/M 606	86806063	6 U, 6 HP
TF/M 607	86807063	6 U, 7 HP
TF/M 608	86808063	6 U, 8 HP
TF/M 609	86809063	6 U, 9 HP
TF/M 610	86810063	6 U, 10 HP
TF/M 612	86812063	6 U, 12 HP
TF/M 614	86814063	6 U, 14 HP
TF/M 616	86816063	6 U, 16 HP
TF/M 619	86819063	6 U, 19 HP
TF/M 620	86820063	6 U, 20 HP
TF/M 621	86821063	6 U, 21 HP
TF/M 627	86827063	6 U, 27 HP
TF/M 628	86828063	6 U, 28 HP
TF/M 640	86840063	6 U, 40 HP
TF/M 642	86842063	6 U, 42 HP
TF/M 662	86862063	6 U, 62 HP
TF/M 663	86863063	6 U, 63 HP
TF/M 684	86884063	6 U, 84 HP

Scope of delivery: 1 part front panel

Note: Mounting material ISH and IHS as accessories.



Part front panels, EMC, front natural-coloured anodised aluminium, passivated on rear with slot for EMC spring and pressed-in alignment pins

Model	Order no.	Note
TF/M 221-EMV	86821024	2 U, 21 HP
TF/M 242-EMV	86842024	2 U, 42 HP
TF/M 263-EMV	86863024	2 U, 63 HP
TF/M 284-EMV	86884024	2 U, 84 HP
TF/M 302-EMV	86802034	3 U, 2 HP
TF/M 303-EMV	86803034	3 U, 3 HP
TF/M 304-EMV	86804034	3 U, 4 HP
TF/M 305-EMV	86805034	3 U, 5 HP
TF/M 306-EMV	86806034	3 U, 6 HP
TF/M 307-EMV	86807034	3 U, 7 HP
TF/M 308-EMV	86808034	3 U, 8 HP
TF/M 309-EMV	86809034	3 U, 9 HP
TF/M 310-EMV	86810034	3 U, 10 HP



Part front panels / plug-in units



Part front panels, EMC, front natural-coloured anodised aluminium, passivated on rear with slot for EMC spring and pressed-in alignment pins

Model	Order no.	Note
TF/M 312-EMV	86812034	3 U, 12 HP
TF/M 314-EMV	86814034	3 U, 14 HP
TF/M 318-EMV	86818034	3 U, 18 HP
TF/M 319-EMV	86819034	3 U, 19 HP
TF/M 320-EMV	86820034	3 U, 20 HP
TF/M 321-EMV	86821034	3 U, 21 HP
TF/M 327-EMV	86827034	3 U, 27 HP
TF/M 328-EMV	86828034	3 U, 28 HP
TF/M 330-EMV	86830034	3 U, 30 HP
TF/M 342-EMV	86842034	3 U, 42 HP
TF/M 349-EMV	86849034	3 U, 49 HP
TF/M 362-EMV	86862034	3 U, 62 HP
TF/M 363-EMV	86863034	3 U, 63 HP
TF/M 384-EMV	86884034	3 U, 84 HP
TF/M 442-EMV	86842044	4 U, 42 HP
TF/M 463-EMV	86863044	4 U, 63 HP
TF/M 484-EMV	86884044	4 U, 84 HP
TF/M 602-EMV	86802064	6 U, 2 HP
TF/M 604-EMV	86804064	6 U, 4 HP
TF/M 605-EMV	86805064	6 U, 5 HP
TF/M 606-EMV	86806064	6 U, 6 HP
TF/M 607-EMV	86807064	6 U, 7 HP
TF/M 608-EMV	86808064	6 U, 8 HP
TF/M 609-EMV	86809064	6 U, 9 HP
TF/M 610-EMV	86810064	6 U, 10 HP
TF/M 612-EMV	86812064	6 U, 12 HP
TF/M 614-EMV	86814064	6 U, 14 HP
TF/M 616-EMV	86816064	6 U, 16 HP
TF/M 619-EMV	86819064	6 U, 19 HP
TF/M 620-EMV	86820064	6 U, 20 HP
TF/M 621-EMV	86821064	6 U, 21 HP
TF/M 627-EMV	86827064	6 U, 27 HP
TF/M 628-EMV	86828064	6 U, 28 HP
TF/M 640-EMV	86840064	6 U, 40 HP
TF/M 642-EMV	86842064	6 U, 42 HP
TF/M 662-EMV	86862064	6 U, 62 HP
TF/M 663-EMV	86863064	6 U, 63 HP
TF/M 684-EMV	86884064	6 U, 84 HP

Scope of delivery: 1 part front panel

Note: For mounting material and EMC springs, see Interzoll Modul / Interzoll accessories.

Part front panels / plug-in units

Part front panels, EMC, 3 / 6 U, hinged, front natural-coloured anodised aluminium, passivated on rear with slot for EMC spring

Model	Order no.	Note
TF/M 342-EMV-S	86842035	3 U, 42 HP
TF/M 363-EMV-S	86863035	3 U, 63 HP
TF/M 384-EMV-S	86884035	3 U, 84 HP
TF/M 642-EMV-S	86842065	6 U, 42 HP
TF/M 663-EMV-S	86863065	6 U, 63 HP
TF/M 684-EMV-S	86884065	6 U, 84 HP

Scope of delivery: 1 part front panel

Note: Mounting material in hinge set scope of delivery. EMC springs -FP/M in Interzoll Modul/Interzoll accessories.



Hinge set for part front panels, diecast zinc, chrome-plated, for left or right hinging

Model	Order no.
TF/M 000-S	86082100

Scope of delivery: 1 hinge set, 4 metal screw holders ISHM/M 19, 4 knurled screws BFS/M 2200, 2 tapped strips 5 x 2, mounting material

Note: Reduction in usable subrack width by 2 HP on the hinged side. Enclosed tapped strips for mounting with Modul or Internorm Stil.

Part front panels, EMC, 3 / 6 U, collapsible, front natural-coloured anodised aluminium, passivated on rear with slot for EMC spring

Model	Order no.	Note
TF/M 342-EMV-K	86842036	3 U, 42 HP
TF/M 363-EMV-K	86863036	3 U, 63 HP
TF/M 384-EMV-K	86884036	3 U, 84 HP
TF/M 642-EMV-K	86842066	6 U, 42 HP
TF/M 663-EMV-K	86863066	6 U, 63 HP
TF/M 684-EMV-K	86884066	6 U, 84 HP

Scope of delivery: 1 part front panel

Note: Mounting material in hinge set scope of delivery. EMC springs -FP/M in Interzoll Modul/Interzoll accessories.



Hinge set for part front panels, collapsible, diecast zinc, nickel-plated

Model	Order no.
TF/M 000-K	86083100

Scope of delivery: 1 hinge set, 4 metal screw holders ISHM/M 19, 4 knurled screws BFS/M 2200, mounting material

Note: Tapped strips as Interzoll Modul / Interzoll accessories.

Part front panels / plug-in units



Plug-in front panels, 3 / 6 U, front natural-coloured anodised aluminium, passivated on rear, incl. handles, plastic, UL 94 V 0, light grey

Model	Order no.	Note
ST/M 303	86803037	3 U, 3 HP
ST/M 304	86804037	3 U, 4 HP
ST/M 305	86805037	3 U, 5 HP
ST/M 306	86806037	3 U, 6 HP
ST/M 308	86808037	3 U, 8 HP
ST/M 310	86810037	3 U, 10 HP
ST/M 312	86812037	3 U, 12 HP
ST/M 318	86818037	3 U, 18 HP
ST/M 321	86821037	3 U, 21 HP
ST/M 604	86804067	6 U, 4 HP
ST/M 606	86806067	6 U, 6 HP
ST/M 608	86808067	6 U, 8 HP
ST/M 609	86809067	6 U, 9 HP
ST/M 610	86810067	6 U, 10 HP
ST/M 612	86812067	6 U, 12 HP
ST/M 621	86821067	6 U, 21 HP

Scope of delivery: 1 part front panel, 1 handle (3 U) / 2 handles (6 U), 1 PCB holder (3 U) / 2 PCB holders (6 U), 2 pressed-in alignment pins, mounting material



Plug-in front panels, EMC, front natural-coloured anodised aluminium, passivated on rear with slot for EMC spring and pressed-in alignment pin

Model	Order no.	Note
ST/M 303-EMV	86803038	3 U, 3 HP
ST/M 304-EMV	86804038	3 U, 4 HP
ST/M 305-EMV	86805038	3 U, 5 HP
ST/M 306-EMV	86806038	3 U, 6 HP
ST/M 308-EMV	86808038	3 U, 8 HP
ST/M 309-EMV	86809038	3 U, 9 HP
ST/M 310-EMV	86810038	3 U, 10 HP
ST/M 312-EMV	86812038	3 U, 12 HP
ST/M 318-EMV	86818038	3 U, 18 HP
ST/M 321-EMV	86821038	3 U, 21 HP
ST/M 603-EMV	86803068	6 U, 3 HP
ST/M 604-EMV	86804068	6 U, 4 HP
ST/M 606-EMV	86806068	6 U, 6 HP
ST/M 608-EMV	86808068	6 U, 8 HP
ST/M 609-EMV	86809068	6 U, 9 HP
ST/M 610-EMV	86810068	6 U, 10 HP
ST/M 612-EMV	86812068	6 U, 12 HP
ST/M 621-EMV	86821068	6 U, 21 HP

Scope of delivery: 1 part front panel, 1 handle (3 U) / 2 handles (6 U), 1 PCB holder (3 U) / 2 PCB holders (6 U), 2 pressed-in alignment pins, mounting material

Note: EMC springs FP/M as Interzoll Modul accessories.

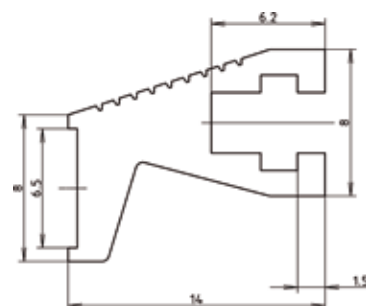
Part front panels / plug-in units

Handle profile, natural-coloured anodised aluminium, metre profile

Model	Order no.
GRL/M 1000-AL	86081740

Scope of delivery: 1 m handle profile

Note: Mounting material BFS/M 1800, 1900 and fixing piece as accessories.

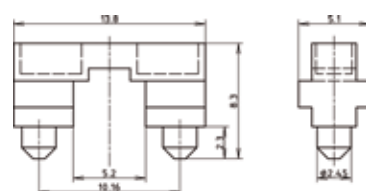


Fixing piece, plastic, black, for fixing the handle profile GRL to the front panel

Model	Order no.
FX/M	86081750

Scope of delivery: 20 fixing pieces

Note: Mounting in aluminium handle GRL/M with BFS/M 1800 / 1900.



Interzoll PRO frame-type plug-in units, 3 U, natural-coloured anodised aluminium front panel, colourless passivated aluminium side profiles, galvanised steel cover plates, plain, galvanised steel rear panel with one slot

Model	Order no.	Note
IZK/M 16308-RW1-P	85808311	3 U, 8 HP
IZK/M 16310-RW1-P	85810311	3 U, 10 HP
IZK/M 16312-RW1-P	85812311	3 U, 12 HP
IZK/M 16314-RW1-P	85814311	3 U, 14 HP
IZK/M 16321-RW1-P	85821311	3 U, 21 HP
IZK/M 16328-RW1-P	85828311	3 U, 28 HP
IZK/M 16342-RW1-P	85842311	3 U, 42 HP

Scope of delivery: 1 front panel with handle, 2 side panels, 2 top covers, 1 rear panel, mounting material

Note: Additional versions, 6 U, EMC or with hood on request.



Cover plates, perforated, passivated aluminium, for frame-type plug-in units, 3 U

Model	Order no.	Note
IZK/M 16008-ADL-P	86090812	8 HP
IZK/M 16010-ADL-P	86091012	10 HP
IZK/M 16012-ADL-P	86091212	12 HP
IZK/M 16014-ADL-P	86091412	14 HP
IZK/M 16021-ADL-P	86092112	21 HP
IZK/M 16028-ADL-P	86092812	28 HP
IZK/M 16042-ADL-P	86094212	42 HP

Scope of delivery: 1 cover plate



Part front panels / plug-in units



Cover plates, perforated, passivated aluminium, for PRO frame-type plug-in units, 3 U, to accommodate card guides

Model	Order no.	Note
IZK/M 16008-ADL-KF-P	86090813	8 HP
IZK/M 16010-ADL-KF-P	86091013	10 HP
IZK/M 16012-ADL-KF-P	86091213	12 HP
IZK/M 16014-ADL-KF-P	86091413	14 HP
IZK/M 16021-ADL-KF-P	86092113	21 HP
IZK/M 16028-ADL-KF-P	86092813	28 HP
IZK/M 16042-ADL-KF-P	86094213	42 HP

Scope of delivery: 1 cover plate



Card guides for cover plates IZK/M-ADL-KF, plastic, UL 94 V1, red

Model	Order no.	Note
IZK/M KF-160-P	86216030	For card depth 160 mm

Scope of delivery: 10 card guides



Rear panel open, passivated aluminium, for IZK/M frame-type plug-in units

Model	Order no.	Note
IZK/M 00308-RWO-P	86090833	8 HP
IZK/M 00310-RWO-P	86091033	10 HP
IZK/M 00312-RWO-P	86091233	12 HP
IZK/M 00314-RWO-P	86091433	14 HP
IZK/M 00321-RWO-P	86092133	21 HP
IZK/M 00328-RWO-P	86092833	28 HP
IZK/M 00342-RWO-P	86094233	42 HP

Scope of delivery: 1 rear panel

PCB and rear panel holder

Model	Order no.	Note
LKH/M 02	86080020	With 4 through holes for fixing front panels and circuit boards
LKH/M 03	86080030	With 2 M 2.5 threads for fixing of front panels and circuit boards
LKH/M 04	86080040	With M 2.5 thread for fitting front panels and through holes for fitting circuit boards
LKH/M 09-P	86080090	For frame-type plug-in unit IZK/M...-P, fixing to slot 1
LKH/M 10-P	86080110	For frame-type plug-in unit IZK/M...-P, fixing to slot 2
RWH/M 01-P	86080120	Rear panel holders for cover plates for improved EMC contacting between rear panel and cover plate. Also increases stability of frame-type plug-in units.

Scope of delivery: 10 pieces. LKH/M 09-P/...10-P: 5 pairs (right/left)

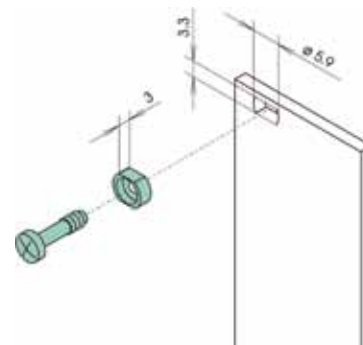
Part front panels / plug-in units

Mounting material for part front panels and plug-in units

Model	Order no.	Note
ISH/M 19	86080510	Plastic screwholder, PA 6, grey
ISHM/M 19	86080500	Metal screwholder, nickel-plated steel
IRS 19	54700420	Collar screws SHR R M2.5x11.3x6.3-SP (slotted knurled screw)
BFS/M 1600	86000160	SHR Z M 2.5x12.3x6.5-SP, nickel-plated steel, for front panels, pozidrive screws
BFS/M 1700	86000170	SHR Z M 2.5x12.3x6.5-SP, nickel-plated steel, for front panels, torx 8
BFS/M 1900	86000190	SHR Z M 2.5 x 8, anodised steel, cross-head, for FX/M, LKH/M 03
BFS/M 2200	86000220	SHR R M 2.5x12.3x6.5-SPx18.3, nickel-plated steel, for front panels
BFS/M 2700	86000270	SHR R M 2.5x12.3x6.5-SPx25.3, anodised steel, for front panels and PF/M with long lip

Scope of delivery: IRS 19 10 pieces, otherwise 20 pieces

Note: Metal screw holder ISHM/M for conductive contacting; for pressing into the front panel. Mounting on request.





UDS – Universal-Docking-Station

Power and data connections for mobile devices can be achieved with the inclined UDS

- 2 sizes
- 2 colours
- Variable detent for fitting of mobile devices
- Contacts for connecting to mobile devices in accessories
- Desktop or wall-mounted application possible

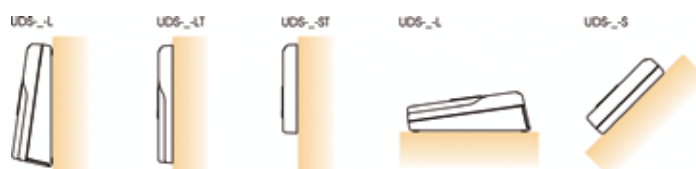


Colour	Black, similar to RAL 9005 / agate grey, similar to RAL 7038; special colours on request
Protection class	IP 40/DIN EN 60529
Enclosure material	Enclosure: PC/ABS blend; adapter: PA 66

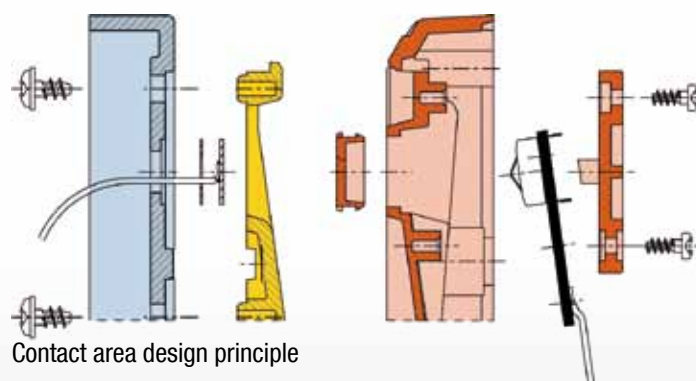
All enclosure contours correspond to motor vehicle standard 74/60/EEC and were tested in accordance with DIN 72300 "Electrical and electronic vehicle equipment, environmental conditions – mechanical stress". Shock and vibration test acc. to DIN EN 60068-2-27/64. The detent is adjustable in 4 stages: Stage 0: No detent; Stage 1: Minimal detent; Stage 2: Medium detent; Stage 3: Maximum detent. Additional springs can be factory-fitted on request to increase the force.

On the inclined L version, the base can be turned to allow wall mounting. For applications, see the illustration.

In order to guarantee max. 6-pole contacting, contacts must be fitted in the UDS and in the mobile enclosure which is to be adapted. The lid contact panel is screwed into the UDS by means of the clamp bridge (supplied). Mechanical processing is necessary for the mobile enclosure which is to be adapted. The transfer contact is fixed in position with the adhesive film (supplied). This does not affect the protection class of the hand-held enclosure. The design principle of the contact area corresponds to the illustration.



UDS applications as wall-mounted or desktop enclosures



Contact area design principle



UDS – Universal Docking Station



Desktop and wall-mounted enclosure L

Model	Order no.	A	B	C	Colour
UDS-G-L	34001000	150	100	51,7	Agate grey
UDS-B-L	34002000	150	100	51,7	Black

Scope of delivery: Pre-mounted lid, base, PCB clamp bridge, blind plate, rubber feet, screw cover, screws



LT enclosure without base, for front panel mounting

Model	Order no.	A	B	C	Colour
UDS-G-LT	34003000*	150	100	19	Agate grey
UDS-B-LT	34004000*	150	100	19	Black

Scope of delivery: Pre-mounted lid, PCB clamp bridge, blind plate, screws for control panel fitting

Note: * = Available on request.

Control panel at least 2 mm thick.



Desktop and wall-mounted enclosure S

Model	Order no.	A	B	C	Colour
UDS-G-S	34005000	113	65	31	Agate grey
UDS-B-S	34006000	113	65	31	Black

Scope of delivery: Pre-mounted lid, base, PCB clamp bridge, blind plate, rubber feet, screw cover, screws

Note: Mounting holes for standard mobile phone fittings.



ST enclosure without base, for front panel mounting

Model	Order no.	A	B	C	Colour
UDS-G-ST	34007000	113	65	19	Agate grey
UDS-B-ST	34008000	113	65	19	Black

Scope of delivery: Pre-mounted lid, PCB clamp bridge, blind plate, screws for control panel fitting

Control panel at least 4 mm thick.

UDS accessories

Adapter

Model	Order no.	Colour
UDS-G-A	34000700	Agate grey
UDS-B-A	34000800	Black

Scope of delivery: 1 adapter, screws

Note: If adapters are to be fitted, mechanical processing of the enclosures is necessary.



Adapter with holding clip

Model	Order no.	Colour
UDS-G-AC	34000500	Agate grey
UDS-B-AC	34000600	Black

Scope of delivery: 1 adapter with clip, screws

Note: If adapters are to be fitted, mechanical processing of the enclosures is necessary.



Lid contact PCBs, 6-pole for UDS...

Model	Order no.
UDS-6 m-PM-PK	34000100
UDS-6 m-PM-PS	34000200

Scope of delivery: 1 PCB with cable 200 mm (-PK) / 1 PCB with pin strip (-PS)

Note: Pin strips: 0.635 x 0.635 mm, grid 2.54 mm; ribbon cable: AWG 26, grid: 1.27 mm; continuous current-carrying capacity at U = 12 V/DC : I = 3 A max.



Transfer contacts with adhesive film, 6-pole, for adaptable enclosures

Model	Order no.
UDS-6F-K	34000300
UDS-6F-S	34000400

Scope of delivery: 1 contact with 200 mm cable (-PK) / 1 contact with pin strip (-PS)

Note: Pin strips: 0.635 x 0.635 mm, grid 2.54 mm; ribbon cable: AWG 26, grid: 1.27 mm; continuous current-carrying capacity at U = 12 V/DC : I = 3 A max.





Cable glands / General Accessories

- Pressure compensation elements
- Polyamide or brass cable glands
- EMC and EX cable glands
- Handles
- DIN rail holders
- Wall fittings
- Enclosure holders
- Enclosure feet
- Battery compartments
- Fixing material



Colour	Depending on the model
Protection class	Depending on the model
Enclosure material	Depending on the model

- Details of the cable glands and pressure compensation elements are on the following pages.
- The General Accessories section contains many components which adapt enclosures to ensure optimal applications.





DAE: pressure compensation elements in light grey or black up to IP 69K / DIN EN 60529



BF / MBF / BFK / MBFK:

- Pg/Metric
- IP 68, 5 bar (30 min.) / DIN EN 60529
- Polyamide, light grey, similar to RAL 7035
- Integrated strain relief
- Temperature range: -20°C to +100°C
- VDE certificate (MBF only): no. 134176
- Integrated anti-kink protection (BFK/MBFK)



POZ / MPOZ / POZB / MPOZB:

- Pg/Metric
- IP 65 / DIN EN 60529
- Polyamide, light grey, similar to RAL 7035
- Integrated strain relief
- Temperature range: -30°C to +100°C
- Integrated anti-kink protection (POZB/MPOZB)



MSBF:

- Metric
- IP 68, 5 bar (30 min.) / DIN EN 60529
- Brass, nickel-plated
- Integrated strain relief
- Anti-twist protection
- Temperature range: -20°C to +100°C



M-EX..PA:

- Metric
- IP 66 / DIN EN 60529
- Polyamide, black, similar to RAL 9005
- Integrated strain relief
- Temperature range : -30°C to +70°C
- Test standard: EN 50014/EN50019/EN50020
- EC test certificates: PTB 99 ATEX 3101 x (M12,M16), PTB 99 ATEX 3128 x (M 20 and higher)

M-EX..MS/:

- Metric
- IP 68 / DIN EN 60529
- Brass, nickel-plated
- Integrated strain relief
- Temperature range : -20°C to +80°C (MS)
- Test standard: EN 50014/EN50019
- EC test certificates: DMT 99 ATEX E016



MEMV:

- Metric
- IP 68, 5 bar (30 min.) / DIN EN 60529
- Brass, nickel-plated
- Integrated strain relief
- Anti-twist protection
- Temperature range: -20°C to +100°C
- For leads with shielding
- Fast, easy EMC connection of the screen mesh via the contact spring and the intermediate connection with the enclosure potential.
- The protective shield is permanently formclosed over a large area of the enclosure


MSS / MSD / MSKBF:

- Pg
- IP 65 / DIN EN 60529 (MSD/MSK)
- IP 54 / DIN EN 60529 (MSS)
- Brass, nickel-plated
- Integrated strain relief (MSK)
- Temperature ranges:
 - 20°C to +100°C (MSK),
 - 30°C to +110°C (MSS/MSD)


MZI / PST:

- Pg
- IP 65 / DIN EN 60529
- Polyamide, light grey, similar to RAL 7035
- Integrated strain relief
- Temperature range: -20°C to +100°C
- MZI for internal mounting with a flat external assembly of 3 mm
- With the PST, pre-configured cables can be completely mounted in the enclosure


DZP / TZP / KK / GD:

- Half cable glands
- Pg
- IP 65 / DIN EN 60529
- Polyamide, light grey, similar to RAL 7035 (DZP/TZP)
- Hostaform (KK)


MBL-EX..MS:

- Blind plug, metric
- IP 68 / DIN EN 60529
- Brass, nickel-plated
- Temperature range: -20°C to +80°C (MS)
- Test standard: EN 50014/EN50019
- EC test certificate: DMT 99 ATEX E016

MBL-EX..PA:

- Blind plug
- Metric
- IP 68
- Polyamide, black, similar to RAL 9005
- Temperature range: -55°C to +95°C
- Test standard: EN 50014/EN50019
- EC test certificate: PTB 98 ATEX 3130

Additional blind plugs, twisting nipples, counter nuts, sealing rings, rubber seals etc.

Information on EX:

Cable glands and blind plugs for use in hazardous areas are tested independently of the unit enclosure and are certified as electrical material with EC type-examination certificates in accordance with EU directive 94/9/EC (ATEX). They are suitable for introducing cables and leads into hazardous areas in equipment group II, categories 2 and 3, with gas explosion protection G, and/or in some cases with dust explosion protection D, in ignition protection types EEx e “increased safety” (EN 50019) and EEx i “intrinsic safety” (EN 50020). For ignition protection type EEx i, we can also supply the polyamide cable glands for marking with a blue cap nut.

Cable glands



Pressure compensation element DAE M12, up to IP 69K

Model	Order no.	Colour	Note
DAE M12	52041000	Light grey	M 12 x 1.5
DAE M12	52042000	Black	M 12 x 1.5

Scope of delivery: 5 pieces

Note: Air, which may create a vacuum in the enclosure when it cools, can suck in water etc. through the seal into the enclosure, which means that ingress protection can no longer be guaranteed. BOPLA's product range includes the pressure compensation element to compensate such variations in pressure caused by differences in temperature. When fitted, the DAE provides IP 69 K protection.



Metric cable glands MBF, polyamide, light grey, IP 68

Model	Order no.	Note
MBF 12	12002100	M 12 x 1.5; cable diameter 3-6 mm
MBF 16	12002200	M 16 x 1.5; cable diameter 5-10 mm
MBF 20	12002300	M 20 x 1.5; cable diameter 8-13 mm
MBF 25	12002400	M 25 x 1.5; cable diameter 11-17 mm
MBF 32	12002500	M 32 x 1.5; cable diameter 15-21 mm
MBF 40	12002600	M 40 x 1.5; cable diameter 19-28 mm



Metric cable glands with anti-kink protection MBFK, polyamide, light grey, IP 68

Model	Order no.	Note
MBFK 12	12002103	M 12 x 1.5; cable diameter 3-6.5 mm
MBFK 16	12002210*	M 16 x 1.5; cable diameter 5-10 mm
MBFK 20-1	12002303	M 20 x 1.5; cable diameter 6-12 mm
MBFK 20-2	12002306*	M 20 x 1.5; cable diameter 10-14 mm
MBFK 25	12002401*	M 25 x 1.5; cable diameter 13-18 mm

Note: * = Available on request



Metric cable glands MPOZ, polyamide, light grey, IP 65

Model	Order no.	Note
MPOZ 12-1	12151800	M 12 x 1.5; cable diameter 4-6 mm
MPOZ 12-2	12151900	M 12 x 1.5; cable diameter 6-8 mm
MPOZ 16	12152000	M 16 x 1.5; cable diameter 6-8 mm
MPOZ 20-1	12152100	M 20 x 1.5; cable diameter 8-10 mm
MPOZ 20-2	12152200	M 20 x 1.5; cable diameter 10-12 mm
MPOZ 20-3	12152300	M 20 x 1.5; cable diameter 12-14 mm
MPOZ 25-2	12152400	M 25 x 1.5; cable diameter 14-18 mm
MPOZ 32	12152500	M 32 x 1.5; cable diameter 18-24 mm

Cable glands

Metric cable glands with anti-kink protection MPOZB, polyamide, light grey, IP 65

Model	Order no.	Note
MPOZB 12-1	12152600	M 12 x 1.5; cable diameter 4- 6 mm
MPOZB 12-2	12152700	M 12 x 1.5; cable diameter 6-8 mm
MPOZB 16	12152800	M 16 x 1.5; cable diameter 6-8 mm
MPOZB 20-1	12152900	M 20 x 1.5; cable diameter 8-10 mm
MPOZB 20-2	12153000	M 20 x 1.5; cable diameter 10-12 mm
MPOZB 20-3	12153100	M 20 x 1.5; cable diameter 12-14 mm
MPOZB 25-2	12153200	M 25 x 1.5; cable diameter 14-18 mm
MPOZB 32	12153300	M 32 x 1.5; cable diameter 18-24 mm



Metric EX cable glands M-EX..PA, polyamide, black, IP 66

Model	Order no.	Note
M-EX 12 PA	12202100	M 12 x 1.5; cable diameter 4-7 mm
M-EX 16 PA	12202200	M 16 x 1.5; cable diameter 5.5-10 mm
M-EX 20 PA	12202300	M 20 x 1.5; cable diameter 5.5-13 mm
M-EX 25 PA	12202400	M 25 x 1.5; cable diameter 8-17 mm
M-EX 32 PA	12202500	M 32 x 1.5; cable diameter 12-21 mm
M-EX 40 PA	12202600	M 40 x 1.5; cable diameter 17-28 mm



Metric counter nuts MGM, polyamide, light grey

Model	Order no.	Note
MGM 12	52090100	M 12 x 1.5
MGM 16	52090200	M 16 x 1.5
MGM 20	52090300	M 20 x 1.5
MGM 25	52090400	M 25 x 1.5
MGM 32	52090500	M 32 x 1.5
MGM 40	52090600	M 40 x 1.5



Metric blind plugs MBL, polyamide, light grey

Model	Order no.	Note
MBL 12	52011100	M 12 x 1.5
MBL 16	52011200	M 16 x 1.5
MBL 20	52011300	M 20 x 1.5
MBL 25	52011400	M 25 x 1.5
MBL 32	52011500	M 32 x 1.5
MBL 40	52011600	M 40 x 1.5



Note: For increased protection, fit sealing ring DR to connection thread.

Cable glands



Metric EX blind plugs MBL-EX..PA, polyamide, black

Model	Order no.	Note
MBL-EX 16 PA	52013200	M 16 x 1.5
MBL-EX 20 PA	52013300	M 20 x 1.5
MBL-EX 25 PA	52013400	M 25 x 1.5
MBL-EX 32 PA	52013500	M 32 x 1.5
MBL-EX 40 PA	52013600	M 40 x 1.5



Pg cable glands BF, polyamide, light grey, IP 68

Model	Order no.	Note
BF 7	10000100	Pg 7; cable diameter 3-6.5 mm
BF 9	10000200	Pg 9; cable diameter 4-8 mm
BF 11	10000300	Pg 11; cable diameter 5-10 mm
BF 13	10000400	Pg 13.5; cable diameter 6-12 mm
BF 16	10000500	Pg 16; cable diameter 10-14 mm
BF 21	10000600	Pg 21; cable diameter 13-18 mm
BF 29	10000700	Pg 29; cable diameter 18-25 mm
BF 36	10000800*	Pg 36; cable diameter 22-32 mm

Note: * = Available on request



Pg cable glands with anti-kink protection BFK, polyamide, light grey, IP 68

Model	Order no.	Note
BFK 7	10001100	Pg 7; cable diameter 3-6.5 mm
BFK 9	10001200	Pg 9; cable diameter 4-8 mm
BFK 11	10001300	Pg 11; cable diameter 5-10 mm
BFK 13	10001400	Pg 13.5; cable diameter 6-12 mm
BFK 16	10001500	Pg 16; cable diameter 10-14 mm
BFK 21	10001600	Pg 21; cable diameter 13-18 mm



Pg cable glands POZ, polyamide, light grey, IP 65

Model	Order no.	Note
POZ 7	12051809	Pg 7; cable diameter 4-6 mm
POZ 9	12051909	Pg 9; cable diameter 6-8 mm
POZ 11	12052009	Pg 11; cable diameter 8-10 mm
POZ 13	12052109	Pg 13.5; cable diameter 10-12 mm
POZ 16	12052209	Pg 16; cable diameter 12-14 mm
POZ 21	12052309	Pg 21; cable diameter 14-18 mm
POZ 29	12052409	Pg 29; cable diameter 18-24 mm

Cable glands

Pg cable glands with anti-kink protection POZB, polyamide, light grey, IP 65

Model	Order no.	Note
POZB 7	12052609	Pg 7; cable diameter 4-6 mm
POZB 9	12052709	Pg 9; cable diameter 6-8 mm
POZB 11	12052809	Pg 11; cable diameter 8-10 mm
POZB 13	12052909	Pg 13.5; cable diameter 10-12 mm
POZB 16	12053009	Pg 16; cable diameter 12-14 mm
POZB 21	12053109	Pg 21; cable diameter 14-18 mm
POZB 29	12053209	Pg 29; cable diameter 18-24 mm



Pg counter nuts GM, polyamide, light grey

Model	Order no.	Note
GM 7	52080100	Pg 7
GM 9	52080200	Pg 9
GM 11	52080300	Pg 11
GM 13	52080400	Pg 13.5
GM 16	52080500	Pg 16
GM 21	52080600	Pg 21
GM 29	52080700	Pg 29
GM 36	52080800	Pg 36



Pg cable glands MZI, polyamide, light grey, flat design for internal assembly, IP 65

Model	Order no.	Note
MZI 9	12060200	Pg 13.5; cable diameter 6-8 mm



Pg plug-in cable glands PST, polyamide, light grey, IP 65

Model	Order no.	Note
PST 13 IP	12060600	Pg 13.5; cable diameter 10-12 mm
PST 16 IP	12060700	Pg 16; cable diameter 12-14 mm



Pg twisting nipples WN, polyethylene, light grey

Model	Order no.	Note
WN 9	52020100	Pg 9
WN 11	52020200	Pg 11
WN 13	52020300	Pg 13.5
WN 16	52020400	Pg 16
WN 21	52020500	Pg 21
WN 29	52020600	Pg 29

Note: Metric designs on request.



Cable glands



Pg blind plugs BL, polyamide, light grey

Model	Order no.	Note
BL 7	52010000	Pg 7
BL 9	52010100	Pg 9
BL 11	52010200	Pg 11
BL 13	52010300	Pg 13.5
BL 16	52010400	Pg 16
BL 21	52010500	Pg 21
BL 29	52010600	Pg 29
BL 36	52010700	Pg 36

Note: For increased protection, fit sealing ring DR to connection thread.



Metric EX cable glands M-EX..MS, brass, nickel-plated, IP 68

Model	Order no.	Note
M-EX 12 MS	13102100*	M 12 x 1.5; cable diameter 3-6 mm
M-EX 16 MS	13102200*	M 16 x 1.5; cable diameter 5-9 mm
M-EX 20 MS	13102300*	M 20 x 1.5; cable diameter 6-12 mm
M-EX 25 MS	13102400*	M 25 x 1.5; cable diameter 11-16 mm
M-EX 32 MS	13102500	M 32 x 1.5; cable diameter 14-21 mm
M-EX 40 MS	13102600	M 40 x 1.5; cable diameter 19-27 mm

Note: * = Available on request.



Metric EMC cable glands MEMV, brass, nickel-plated, IP 68

Model	Order no.	Note
MEMV 16	12102200*	M 16 x 1.5; cable diameter 5-9 mm
MEMV 20	12102300*	M 20 x 1.5; cable diameter 9-13 mm
MEMV 25	12102400*	M 25 x 1.5; cable diameter 11-16 mm
MEMV 32	12102500*	M 32 x 1.5; cable diameter 14-21 mm
MEMV 40	12102600	M 40 x 1.5; cable diameter 19-27 mm

Note: * = Available on request.



Metric cable glands MSBF, brass, nickel-plated, IP 68

Model	Order no.	Note
MSBF 12	13002100	M 12 x 1.5; cable diameter 3-6 mm
MSBF 16	13002200	M 16 x 1.5; cable diameter 5-9 mm
MSBF 20	13002300	M 20 x 1.5; cable diameter 9-13 mm
MSBF 25	13002400	M 25 x 1.5; cable diameter 11-16 mm
MSBF 32	13002500	M 32 x 1.5; cable diameter 14-21 mm
MSBF 40	13002600*	M 40 x 1.5; cable diameter 19-27 mm

Note: * = Available on request.

Cable glands

Metric counter nuts MGMS, brass, nickel-plated

Model	Order no.	Note
MGMS 12	13160100	M 12 x 1.5
MGMS 16	13160200	M 16 x 1.5
MGMS 20	13160300	M 20 x 1.5
MGMS 25	13160400	M 25 x 1.5
MGMS 32	13160500	M 32 x 1.5
MGMS 40	13160600	M 40 x 1.5



Metric EX blind plugs MBL-EX..MS, brass, nickel-plated

Model	Order no.	Note
MBL-EX 12 MS	52014100	M 12 x 1.5
MBL-EX 16 MS	52014200	M 16 x 1.5
MBL-EX 20 MS	52014300	M 20 x 1.5
MBL-EX 32 MS	52014400	M 25 x 1.5
MBL-EX 32 MS	52014500	M 32 x 1.5
MBL-EX 40 MS	52014600	M 40 x 1.5



Pg cable glands MSS, brass, nickel-plated, IP 54

Model	Order no.	Note
MSS 7	13020100	Pg 7; cable diameter 4-6 mm
MSS 9	13020200	Pg 9; cable diameter 6-8 mm
MSS 11	13020300	Pg 11; cable diameter 8-10 mm
MSS 13	13020400	Pg 13.5; cable diameter 10-12 mm
MSS 16	13020500	Pg 16; cable diameter 12-14 mm
MSS 21	13020600	Pg 21; cable diameter 15-17 mm



Pg cable glands MSD, brass, nickel-plated, IP 65

Model	Order no.	Note
MSD 7	13040100	Pg7; cable diameter 4-6.5 mm
MSD 9	13040200	Pg 9; cable diameter 5-10 mm
MSD 11	13040300	Pg 11; cable diameter 7-11.5 mm
MSD 13	13040400	Pg 13; cable diameter 8-15 mm
MSD 16	13040500	Pg 16; cable diameter 8-15 mm



Pg cable glands MSK, brass, nickel-plated, IP 65

Model	Order no.	Note
MSK 7	13050100	Pg 7; cable diameter 4-6 mm
MSK 9	13050200	Pg 9; cable diameter 6-8 mm
MSK 11	13050300	Pg 11; cable diameter 8-10 mm
MSK 13	13050400	Pg 13.5; cable diameter 10-12 mm
MSK 16	13050500	Pg 16; cable diameter 12-14 mm
MSK 21	13050600	Pg 21; cable diameter 14-18 mm
MSK 29	13050700	Pg 29; cable diameter 18-24 mm



Cable glands



Pg counter nuts GMS, brass, nickel-plated

Model	Order no.	Note
GMS 7	13150100	Pg 7
GMS 9	13150200	Pg 9
GMS 11	13150300	Pg 11
GMS 13	13150400	Pg 13.5
GMS 16	13150500	Pg 16
GMS 21	13150600	Pg 21
GMS 29	13150700	Pg 29
GMS 36	13150800	Pg 36



Metric sealing rings MDR, nitrite rubber

Model	Order no.	Note
MDR 12	52050100	For M 12 x 1.5
MDR 16	52050200	For M 16 x 1.5
MDR 20	52050300	For M 20 x 1.5
MDR 25	52050400	For M 25 x 1.5
MDR 32	52050500	For M 32 x 1.5
MDR 40	52050600	For M 40 x 1.5



Pg sealing rings DR, nitrite rubber

Model	Order no.	Note
DR 7	52030000	For Pg 7
DR 9	52030100	For Pg 9
DR 11	52030200	For Pg 11
DR 13	52030300	For Pg 13.5
DR 16	52030400	For Pg 16
DR 21	52030500	For Pg 21
DR 29	52030600	For Pg 29
DR 36	52030700	For Pg 36



Blanking plugs VS BF, polyethylene, red

Model	Order no.	Note
VS BF 7	10000110	For BF 7 / MBF 12
VS BF 9	10000210	For BF 9 / MBF 16
VS BF 11	10000310	For BF 11
VS BF 13	10000410	For BF 13 / MBF 20
VS BF 16	10000510	For BF 16
VS BF 21	10000610	For BF 21 / MBF 25
VS BF 29	10000710	For BF 29
VS BF 32	10000715	For MBF 32
VS BF 36	10000810	For BF 36
VS BF 40	10000815	For MBF 40

Note: For BF cable glands which are unused, to achieve protection class IP 65.

Cable glands

Blind washers BS BF, polyethylene, light grey

Model	Order no.	Note
BS 7	12911280	For POZ 7, POZB 7, MSS 7, MSD 7, MSK 7
BS 9	12911285	For POZ 9, POZB 9, MSS 9, MSD 9, MSK 9
BS 11	12911290	For POZ 11, POZB 11, MSS 11, MSD 11, MSK 11
BS 13	12911300	For POZ 13, POZB 13, MSS 13, MSD 13, MSK 13
BS 21	12911310	For POZ 21, POZB 21, MSS 21, MSK 21
BS 29	12911320	For POZ 29, POZB 29, MSK 29

Note: To achieve dust protection, fit the blind washer under the sealing ring.



Pressure screws DZP, polyamide, light grey, for half cable glands

Model	Order no.	Note
DZP 7	12091129	Pg 7
DZP 9	12091229	Pg 9
DZP 11	12091329	Pg 11
DZP 13	12091429	Pg 13.5
DZP 16	12091529	Pg 16
DZP 21	12091629	Pg 21
DZP 29	12091729	Pg 29

Note: Only for use with clamping cage KK and rubber seal GD.



Anti-kink protection pressure screws TZP, polyamide, light grey, for half cable glands

Model	Order no.	Note
TZP 7	12091139	Pg 7
TZP 9	12091239	Pg 9
TZP 11	12091339	Pg 11
TZP 13	12091439	Pg 13.5
TZP 16	12091539	Pg 16
TZP 21	12091639	Pg 21
TZP 29	12091739	Pg 29

Note: Only for use with clamping cage KK and rubber seal GD.



Clamping cages KK, Hostaform, for optimal strain relief with half cable glands

Model	Order no.	Note
KK 7	52040039	For Pg 7
KK 9	52040139	For Pg 9
KK 11	52040219	For Pg 11
KK 13	52040319	For Pg 13.5
KK 16	52040449	For Pg 16
KK 21	52040539	For Pg 21
KK 29	52040639	For Pg 29

Note: For use in connection with DZP or TZP



Cable glands



Sealing rings GD, nitrite-rubber, for clamping cages KK

Model	Order no.	Note
GD 7	52040029	For Pg 7
GD 9	52040119	For Pg 9
GD 11	52040229	For Pg 11
GD 13	52040329	For Pg 13.5
GD 16	52040429	For Pg 16
GD 21	52040529	For Pg 21
GD 29	52040629	For Pg 29

Note: Nitrite-rubber seal for clamping cage KK to provide your half cable gland with a certain degree of IP protection.



Multiple sealing rings GD, Evoprene TPE, for screwing types BF, BFK, MBFK

Model	Order no.	Note
GD 9/2x3	52140010*	For BF 9 / BFK 9, 2 x Ø 3
GD 11/2x3	52140020*	For BF 11 / BFK 11 / MBFK 16, 2 x Ø 3
GD 11/2x4	52140030*	For BF 11 / BFK 11 / MBFK 16, 2 x Ø 4
GD 11/3x3	52140040*	For BF 11 / BFK 11 / MBFK 16, 3 x Ø 3
GD 11/4x3	52140050*	For BF 11 / BFK 11 / MBFK 16, 4 x Ø 3
GD 13/2x5	52140060*	For BF 13 / BFK 13 / MBFK 20-1, 2 x Ø 5
GD 13/2x6	52140070	For BF 13 / BFK 13 / MBFK 20-1, 2 x Ø 6
GD 13/3x5	52140080*	For BF 13 / BFK 13 / MBFK 20-1, 3 x Ø 5
GD 16/2x6	52140090	For BF 16 / BFK 16 / MBFK 20-2, 2 x Ø 6
GD 16/3x6,5	52140100	For BF 16 / BFK 16 / MBFK 20-2, 3 x Ø 6.5
GD 16/4x4	52140110*	For BF 16 / BFK 16 / MBFK 20-2, 4 x Ø 4
GD 16/4x5	52140120*	For BF 16 / BFK 16 / MBFK 20-2, 4 x Ø 5
GD 21/2x9	52140130	For BF 21 / BFK 21 / MBFK 25, 2 x Ø 9
GD 21/3x7	52140140	For BF 21 / BFK 21 / MBFK 25, 3 x Ø 7
GD 21/3x8	52140150	For BF 21 / BFK 21 / MBFK 25, 3 x Ø 8
GD 21/4x7	52140160*	For BF 21 / BFK 21 / MBFK 25, 4 x Ø 7

Note: * = Available on request.



Multiple sealing rings GD, Evoprene TPE, for screwing types MBF, MSBF

Model	Order no.	Note
MGD 16/2x4	52150010*	For MBF 16 / MSBF 16, 2 x Ø 4
MGD 20/2x6	52150030	For MBF 20 / MSBF 20, 2 x Ø 6
MGD 20/4x5	52150020*	For MBF 20 / MSBF 20, 4 x Ø 5
MGD 25/2x6	52150040*	For MBF 25 / MSBF 25, 2 x Ø 6
MGD 25/2x8	52150050	For MBF 25 / MSBF 25, 2 x Ø 8
MGD 25/3x7	52150060*	For MBF 25 / MSBF 25, 3 x Ø 7
MGD 25/4x6,5	52150070*	For MBF 25 / MSBF 25, 4 x Ø 6.5
MGD 25/6x4	52150080*	For MBF 25 / MSBF 25, 6 x Ø 4
MGD 32/4x8	52150090	For MBF 32 / MSBF 32, 4 x Ø 8
MGD 32/6x6	52150100	For MBF 32 / MSBF 32, 6 x Ø 6
MGD 40/4x10	52150110	For MBF 40 / MSBF 40, 4 x Ø 10
MGD 40/8x6,5	52150120	For MBF 40 / MSBF 40, 8 x Ø 6.5

Note: * = Available on request.

General Accessories

Universal screw-on lanyard loop, plastic

Model	Order no.	Colour
OE-7024	59907024	Graphite grey
OE-7035	59907035	Light grey
OE-7038	59907038	Agate grey
OE-9005	59909005	Black

Scope of delivery: 5 loops including screws

Note: Mechanical processing of the enclosure is required.



Handle HS 1; side parts: black plastic; handle profile: natural-coloured anodised aluminium

Model	Order no.	Colour	Note
HS 1-9005	20008073	Black	Side parts
HSP 1-1000	20008075	Natural-coloured anodised aluminium	Handle profile, length: 1000 mm

Scope of delivery: 2 side parts, screws (HS), 1 m profile (HSP)

Because it swivels (fixed latching position every 30°), the handle can be used both for carrying purposes or as a set-up bow for desktop use. Handle HS1 can be used with the following BOPLA enclosure series: Botego, Ultramas, Aluplan, Alumas, CombiCard 1000-3000 and 5000-7000, Euromas, Alubos.

Note: Handles HS1 and HS2 consist of 2 side parts and 1 profile. In order to guarantee customer-specific usage, side parts and profile are ordered separately. In this way, the handle lengths can be adjusted to fit any enclosure. On request we can supply the required profile length and carry out the necessary processing on the enclosure.



Handle HS 2; side parts: black plastic; handle profiles: natural-coloured anodised aluminium (AE) / black anodised (SE)

Model	Order no.	Note
HS 2-9005	20008074	Side parts
HSP 2-1000-AE	20008076	Handle profile, length: 1000 mm
HSP 2-1000-SE	20008077	Handle profile, length: 1000 mm

Scope of delivery: 2 side parts, screws (HS), 1 m profile (HSP)

Note: Because the handle swivels (fixed detent position every 15°), it can be used as a carrying handle and also as a tip-up bow for console use. Handle HS2 can be used with the following BOPLA enclosure series: Botego, Ultramas, Aluplan, Alumas, Elegant, Element, Sinfonie, CombiCard 1000-3000 and 5000-7000, CombiSet, Euromas, Alubos, Bocard, BOS-Ecoline.

Note: Handles HS1 and HS2 consist of two side parts and a profile. In order to guarantee customer-specific application, the side parts and profile can be ordered separately. This makes it possible to adapt the length of the handles to any enclosure. On request we can supply the required profile length and carry out the necessary processing on the enclosure.



General Accessories



Universal DIN rail holder TSH 35

Model	Order no.	Colour
TSH 35	22035000	Black

Scope of delivery: 1 DIN rail holder, screws for enclosure mounting

Note: This DIN rail holder consists of a base and a bolt. The bolt can be snapped into the base in different positions. This makes it ideal for use with enclosure heights between 70 mm and 160 mm. It is fitted approximately in the middle of the enclosure, and the bolt projecting from the enclosure base can be disconnected from the rail by means of a screwdriver in the normal way. For assembly, insert the screws (enclosed) from the inside of the enclosure. This guarantees full insulation protection. On small enclosures, the part of the bolt which projects upwards can be pinched off. In the case of very wide enclosures, it may be necessary to fit two DIN rail holders.



DIN rail holder TSH 35-2

Model	Order no.	Colour
TSH 35-2	20035000	Black

Scope of delivery: 2 DIN rail holders, 4 screws for enclosure mounting

Note: You can use this universal DIN rail holder to clip or unclip enclosures with an extremely wide range of dimensions onto or from the DIN rail. This DIN rail holder can be screwed universally to every enclosure. It is necessary to process the enclosure.



Universal wall fitting UWB

Model	Order no.	Colour
UWB 7024	94800024	Graphite grey
UWB 7035	94800035	Light grey
UWB 7038	94800038	Agate grey
UWB 9005	94800005	Black
UWB-Profil	94801000	Natural-coloured anodised aluminium

Scope of delivery: 2 side parts, mounting material (UWB), 1 m profile (UWB profile)

Note: Because of the various settings (fixed detent position every 10°), can be used as a wall fitting and also as a foot. Side elements and profiles can be ordered separately to ensure a customer-specific application. This allows the length of the profiles to be adapted to every enclosure. On request we can supply the required profile length and carry out the necessary processing of the enclosure.

Protection class up to IP 65 / DIN EN 60529



Universal holder with screw fitting and swan neck, black

Model	Order no.
UH-2	22015660

Scope of delivery: 1 holder including screws

Note: Matches universal adapter UGA-1/4.

General Accessories

Universal holder, can be turned and inclined, with screw fitting, black

Model	Order no.
UH-3	22015800

Scope of delivery: 1 holder including screws

Note: Screwless fitting possible by means of rear adhesive layer. Can be turned by 360°. Matches universal adapter UGA-1/4.



Universal holder with self-adhesive foil / with screw holes, black

Model	Order no.	Note
UH-4	22014830	With self-adhesive foil
UH-5	22016420	With screw holes

Scope of delivery: 1 holder

Note: Matches universal adapter UGA-1/4.



Universal adapter with self-adhesive foil, black

Model	Order no.	Note
UGA-1	22014710	With self-adhesive foil

Scope of delivery: 1 adapter

Note: Matches universal holder UH-2 up to -4.



Universal adapter with screw holes, black

Model	Order no.	Note
UGA-4	22016350	With screw holes

Scope of delivery: 1 adapter

Note: Matches universal holder UH-2 up to -4.



General Accessories



Universal clip and tip-up clip, polyamide

Model	Order no.	Colour
ASC 1	34090010	Agate grey
ASC 1	34090000	Black

Scope of delivery: 1 clip including screws

Note: Can be fitted subsequently to all enclosure. Processing of the enclosures is necessary.
For use as a wall hanging unit when in closed position. Unlock the tip-up bow to swivel it by 90°.



Wall fitting for ASC 1

Model	Order no.	Colour
WH-ASC 1-7038	34090011	Agate grey
WH-ASC 1-9005	34090001	Black

Scope of delivery: 1 wall fitting



Universal tip-up feet, black

Model	Order no.	Note
AB 1230	39603000	Including 4 sheet metal screws
AB 1230-M4	64116000	With 4 metric screws and nuts

Scope of delivery: 2 fixed tip-up feet, 2 collapsible tip-up feet, sheet metal screws (AB1230) / M 4 screws and nuts (AB1230-M4)

Note: With its front collapsible feet, the universal set-up foot set AB 1230 enables you to stand the enclosure either parallel or at an angle (easier access to the operating front).



Universal rubber feet for stability of the enclosures on all surfaces

Model	Order no.	Colour	Note
GF	22009000	Black	Polyurethane, 65-75 Shore
EG-GF	25002100	Grey	Foam, for E 406-E 435; for EG...
E-F	25002200	White	Rubber, 67 Shore, for E 440-E 470, for E 434 S
BA-Füßchen	35002410	Black	Polyurethane, 65-75 Shore
AB - GF	84006700	Black	Polyurethane, 65-75 Shore

Scope of delivery: 4 rubber feet

General Accessories

Battery compartments, black plastic, IP 65 / DIN EN 60529

Model	Order no.	Colour	Note
BE-3MN-IP-7024	58317024	Anthracite grey	For 3 mignon batteries (LR6, R06, AM3, E 91, AA)
BE-3MN-IP-7035	58317035	Light grey	For 3 mignon batteries (LR6, R06, AM3, E 91, AA)
BE-3MN-IP-7038	58317038	Agate grey	For 3 mignon batteries (LR6, R06, AM3, E 91, AA)
BE-3MN-IP-9005	58319005	Black	For 3 mignon batteries (LR6, R06, AM3, E 91, AA)
BE-4MN-IP-7024	58417024	Anthracite grey	For 4 mignon batteries (LR6, R06, AM3, E 91, AA)
BE-4MN-IP-7035	58417035	Light grey	For 4 mignon batteries (LR6, R06, AM3, E 91, AA)
BE-4MN-IP-7038	58417038	Agate grey	For 4 mignon batteries (LR6, R06, AM3, E 91, AA)
BE-4MN-IP-9005	58419005	Black	For 4 mignon batteries (LR6, R06, AM3, E 91, AA)



Scope of delivery: 1 battery compartment including battery contacts

Note: Can be fitted in every front panel or enclosure. Use the adhesive film (included in scope of delivery) to seal the battery compartment IP-tight.

Battery compartments, black plastic, IP 40 / DIN EN 60529

Model	Order no.	Note
BE 30	46300000	For one 9V block battery (6LR61, 6AM6,522) or 2 mignon batteries (LR6, R06, AM3, E91, AA)
BE 60	46600000	For two 9V block batteries (6LR61, 6AM6,522) or 4 mignon batteries (LR6, R06, AM3, E91, AA)



Scope of delivery: 1 battery compartment including 4 (BE 30) or 8 (BE 60) battery contacts

Note: The battery compartment can be installed in all front panels or all enclosures. The battery compartment is snapped into the cut-out provided by means of moulded-on snap-on devices.

Battery compartment for 9V block battery, black plastic

Model	Order no.
BE 40	46400000

Scope of delivery: 1 battery compartment including tension frame

Hinweis: Note: Battery compartment for insertion in front panels, enclosure walls and similar with a max. wall thickness of 4 mm.



General Accessories



Battery holders		
Model	Order no.	Note
BH 2MC	34165572	For 2 micro batteries (LR03, R03, AM4, E92, AAA), connection with soldering tags
BH 4MC	34165573	For 4 micro batteries (LR03, R03, AM4, E92, AAA), connection with soldering tags
BH 2MN	34165574	For 2 mignon batteries (LR6, R06, AM3, E91, AA), connection clip included in scope of delivery
BH 3MN	34165575	For 3 x mignon (LR6, R06, AM3, E91, AA), connection clip included in scope of delivery
BH 4MN-BL	34165576	For 4 mignon batteries (LR6, R06, AM3, E91, AA), connection clip included in scope of delivery
BH 6MN-BL	34165577	For 6 mignon batteries (LR6, R06, AM3, E91, AA), connection clip included in scope of delivery
BH 9V-CLIP	34165578	Clip for 9 V block (6LR61, 6AM6, 522)
Scope of delivery: 5 battery holders or 5 clips		
Note: Connection with soldering tags.		

General Accessories

Screws (SHR) and distance bolts (DIBLZ) for mounting bosses in plastic enclosures

Model	Order no.	Note
SHR Z KA22x6	59006195	SD = 2.2 / ND = 1.7-1.8 / KD = 3.9
SHR Z KA25x6	59006190	SD = 2.5 / ND = 2.0 / KD = 4.4
SHR Z KA30x6	59006219	SD = 3.0 / ND = 2.4-2.6 / KD = 5.6
SHR Z KA30x8	59006217	SD = 3.0 / ND = 2.4-2.6 / KD = 6.0
SHR Z KA35x6	59006209	SD = 3.5 / ND = 2.8 / KD = 7.0
SHR Z KA35x8	59006210	SD = 3.5 / ND = 2.8 / KD = 6.9
SHR Z KA35x10	59006220	SD = 3.5 / ND = 2.8 / KD = 6.9
SHR Z B4.5x7.8	59006101	SD = 4.5 / ND = 4.0 / KD = 7.5
SHR Z KA 50 x 8.0	59006270*	SD = 5.0 / ND = 4.3 / KD = 7.0
SHR Z KA50x10	59006240	SD = 5.0 / ND = 4.3 / KD = 8.2
SHR Z B6.3x9.5	59006110	SD = 7.0 / ND = 5.5 / KD = 12.5
DIBLZ AK 30x5/IM3/8	59006985	ND = 2.4-2.6
DIBLZ AK 30x5/IM3/10	59006986	ND = 2.4-2.6
DIBLZ AK 30x7/IM3/8	59006987	ND = 2.4-2.6
DIBLZ AK 30x7/IM3/10	59006988	ND = 2.4-2.6

Scope of delivery: 1 screw

Note: Explanation of the table: SD = screw diameter; ND = boss internal diameter; KD = screw head diameter. All dimensions in mm.

In most BOPLA plastic enclosures, mounting bosses without threaded bushings are provided as mounting points. Screws with a self-tapping thread must be selected accordingly. When selecting screws, note the details of the boss internal diameters (see drawings on internet) and the drilling depth. The tightening torques for plastic depend on screw-in depth, screw-in speed, accuracy of torque switch-off of the power screwdriver, etc., so it is not possible to provide general data about the tightening torques.

*= available on request.



Threaded inserts, brass, for mounting bosses in plastic enclosures

Model	Order no.	Note
DODGE M3x6.5	59002810	ND = 4.0 x 6.5
DODGE M4x9.5	59002820	ND = 5.4 x 9.5

Scope of delivery: 1 threaded insert

Note: Explanation of the table: ND = boss internal diameter

Mounting instructions: Insert the connector into the boss until it reaches the bottom. Then flatten the plate using a pin.

It is very difficult to remove fitted threaded connectors. With reference to the directive relating to electronic scrap, recycling of the enclosure is very expensive. For this reason, it is not possible for us to take back enclosures which have subsequently been processed in this way.



In addition, we offer on request:

The following product groups are not part of the standard BOPLA range. However, we can supply them, based on a minimum order quantity. Please contact our sales department for more details.

1 Alumas

The profile enclosure made of extruded aluminium is available with a depth of 240 mm. The height and width are flexible. The enclosure meets protection class IP 40 / DIN EN 60529.

2 Bovista

The plastic Bovista range is a system of enclosures which stands out because of the interesting possibilities for combining lids and bases. It is available in three basic sizes, each in pure white (similar to RAL 9010) and light grey (similar to RAL 7035). A comprehensive range of accessories allows many applications, especially in the field of building automation.

3 CombiNorm-Control

The compact series of terminal enclosures with protection class IP 20 / DIN EN 60529 was designed to hold two-pole PCB connection terminals and is suitable for many applications.



4 Eletec

The connector enclosure system made of flame-resistant polyamide is available in eight basic dimensions. It can be used with six country-specific connectors and four different sockets. The enclosures are available with and without ventilation and, depending on the design, offer protection class IP 30 or IP 40 / DIN EN 60529 respectively.

5 Elesett

40 enclosure variations made of flame-resistant plastic can be made using the many country-specific types of this series of connector enclosures. The design of this series matches the BOPLA Elegant series and meets protection class IP 40 / DIN EN 60529.

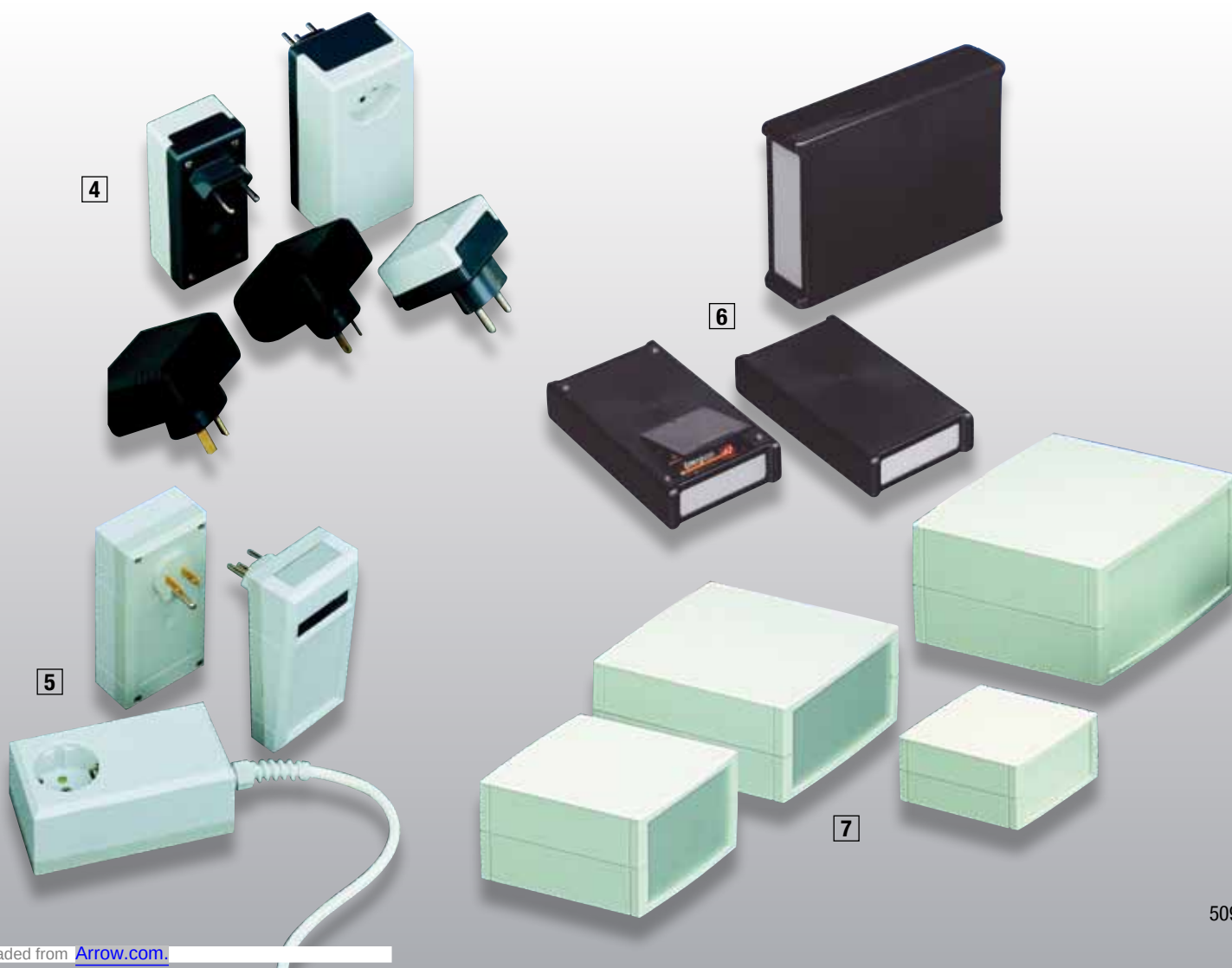
6 Sinfonie

If fitted with the optional battery compartments, this ABS desktop enclosure can also be used as hand-held enclosure. All enclosures in this series meet protection class IP 40 / DIN EN 60529 and are available in black, similar to RAL 9005.

7 Unimas

This series stands out thanks to its clear design and simple assembly technology. All sizes in this light-grey polystyrene enclosure meet protection class IP 40 / DIN EN 60529.

Further details on request!





Colour overview

Our enclosures and accessories are available in the standard colours as listed – details are shown in the individual product groups. Please note that in our experience, the colours do not exactly match the original colour. We recommend that you base your decisions on sample parts.

Of course, you can also have our products in special colours. Please contact us for more information.



Signal yellow



Sulphur yellow



Rape yellow



Flame red



Signal red



Ultramarine blue



Signal blue



Dove blue



Sky blue



Patina green



Light green



Signal green



Squirrel grey



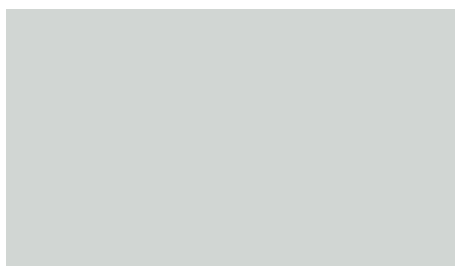
Silver grey



Graphite grey



Pebble grey



Light grey



Dust grey



Agate grey



Quartz grey



Black



Silver

Technical information

Degrees of protection acc. to DIN EN 60529; VDE 0470–1 : 2000-09

(Important: We assume no liability for cited standards)

The degree of protection offered by an enclosure is shown by the letters IP (Ingress Protection) and two indexes. The first index indicates two factors (protection for persons and equipment), the second index indicates only one factor (protection against water).

Example: IP 54

First index 5 = protection against dust and wire contact with dangerous parts
Second index 4 = protection against splashing water

First index: Protection against contact and foreign objects

Symbol	Index	Protection against contact		Protection against foreign objects	
		Brief description	Definition	Brief description	Definition
	0	Not protected	—	Not protected	—
	1	Protection against the back of the hand touching dangerous parts	The object probe, a 50 mm diameter sphere, must be at a sufficient distance from dangerous parts	Protection against a solid foreign object of 50 mm or more in diameter	The object probe, a 50 mm diameter sphere, must not fully penetrate
	2	Protection against a finger touching dangerous parts	The test finger, jointed, 12 mm in diameter and 80 mm long, must be at a sufficient distance from dangerous parts	Protection against a solid foreign object of 12.5 mm or more in diameter	The object probe, a 12.5 mm diameter sphere, must not penetrate at all
	3	Protection against a tool touching dangerous parts	The object probe, a 2.5 mm diameter sphere, must not be able to penetrate	Protection against a solid foreign body of 2.5 mm or more in diameter	The object probe, a 2.5 mm diameter sphere, must not penetrate at all
	4	Protection against a wire touching dangerous parts	The object probe, 1.0 mm in diameter, must not be able to penetrate	Protection against a solid foreign object of 1.0 mm or more in diameter	The object probe, a 1.0 mm diameter sphere, must not penetrate at all
	5	Protection against a wire touching dangerous parts	The object probe, 1.0 mm in diameter, must not be able to penetrate	Protection against dust	Dust penetration is not completely prevented ¹⁾
	6	Protection against a wire touching dangerous parts	The object probe, 1.0 mm in diameter, must not be able to penetrate	Dust-tight	No ingress of dust

An enclosure must only be designated with the first index (protection against penetration) for a degree of protection when it also meets all lower degrees of protection.

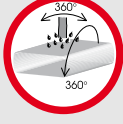
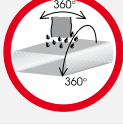
1) Dust must not penetrate in sufficient quantities to prevent the equipment from operating satisfactorily, or to impair safety.

Important note:

The degrees of protection given for the enclosures refer to unmachined enclosures as supplied. In the case of protection against water in particular (second index), the test conditions will be met if during the given time for the experiment no water has penetrated, or not in harmful quantities.

As the tests to show protection classifications take no account of ageing, the maintenance of the protection class throughout the lifetime of the equipment is not guaranteed. **Similarly, changes in temperature, as may occur, for example, outdoors, are not taken into account.** Such changes in temperature may cause a loss of pressure in the enclosure, and damp may be absorbed through the seal area. BOPLA can supply pressure compensation elements for this purpose.

Second index: Protection against water

Symbol	Index	Brief description	Definition
	0	Not protected	—
	1	Protection against falling water drops	Drops of water falling vertically onto the enclosure must not have any harmful effects.
	2	Protection against falling drops of water when the enclosure is tilted at any angle of up to 15°	Drops of water falling vertically onto the enclosure must not have any harmful effects if the enclosure is tilted at any angle of up to 15° on both sides of the vertical.
	3	Protection against spraying water	Water sprayed onto the enclosure at an angle of up to 60° on both sides of the vertical must not have any harmful effects.
	4	Protection against splashing water	Water splashed onto the enclosure from any direction must not have any harmful effects.
	5	Protection against water jets	Water projected in jets against the enclosure from any direction must not have any harmful effects.
	6	Protection against powerful water jets	Water projected in powerful jets against the enclosure from any direction must not have any harmful effects.
	7	Protection against the effects of temporary immersion in water	Water must not enter in a quantity that could have harmful effects if the enclosure is temporarily immersed in water under standardised conditions of pressure and time.
	8	Protection against the effects of continuous immersion in water	Water must not enter in a quantity that could have harmful effects if the enclosure is kept permanently under water. The conditions (time/pressure) must be agreed between the manufacturer and the user and must be stated additionally.

Up to index 6, the **second index** (protection against water) must only be used for a degree of protection for an enclosure if it also meets all lower degrees of protection. However, an enclosure which is only designated with the second index 7, 8 (protection against immersion) or 9K (protection against a jet of steam) is considered to be unsuitable for use with a jet of water (index 5 or 6). This means that it does not need to meet the requirements indicated by indexes 5 or 6. Only an enclosure with a double designation meets the requirements regarding resistance to a jet of water and to immersion/jet of steam.

DIN 40050 part 9 : 1993-05

	9K	Protected against water during high-pressure and steam jet cleaning	Water which is directed from all sides against the enclosure under greatly increased pressure must not cause any damage (specifically for the electrical equipment in road vehicles).
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Technical Information

Plastics

General information on plastics

All the plastic enclosures we supply are made of **one** standard material (Euromas of **two** materials). The standard material is chosen during the design process, taking into account the data available to us on the use and pricing. The injection tools are made to suit the material.

Many of our customers use the enclosures under quite different conditions from those we have considered in selecting the material. For this reason, it is frequently necessary to use a special material, or a special colour, to suit these conditions.

We will willingly meet customers' special requirements, if the technical means are available.

In the case of materials that we cannot use for technical reasons, we propose viable alternatives on the basis of your material requirements.

Special colours / material for plastic enclosures

In principle, all plastic enclosures can be produced in special colours to meet customers' wishes. However, the following factors need to be taken into consideration:

- 1) The colour required can only be approximately achieved for production reasons.
- 2) In choosing the colour, wherever possible only the standard palette published by the raw materials manufacturer should be used, as this will enable subsequent orders to be as close as possible to the original colour.
The delivery time and the quantity of the raw material required are ensured within specific limits.
- 3) Our series production has to be interrupted to set up the necessary mould. The plant has to be thoroughly cleaned of the previous material to ensure that no impurities enter the special colour.
- 4) The cleaning required before the special colour can be used causes additional material loss.

When we make our products in special colours and/or special materials, the following deviations from our standard products are possible for material and production reasons:

- Standard products are subject to the tolerances according to DIN 16901. In the case of special materials, the nominal dimensions change in accordance with the shrinkage difference from the standard material, as do the tolerance groups.
- Deviations in dimensions and shapes from the standard versions are due to differences in shrinkage and shrinkage behaviour.
- Deviations in colour from standard or RAL colour charts occur.
- other surface properties, such as
 - gloss
 - structures
 - lines of flow or streaks on dark colours
- Increased formation of ridges is possible.
- Colour additives can affect the material properties (combustibility, UV resistance).
- or others

General advice for machining plastic enclosures

Milling, drilling

When machining plastic enclosures, the tools must only be cooled with oil-free air. Drilling coolants and separators can cause splitting and tearing.

When using separators containing silicone, subsequent imprinting and lacquering is not possible as the lacquer would not adhere properly.

In case of doubt, please ask us for information.

Our machining service protects you against these risks.

Punching

When plastic parts are punched, corners can tear or break.

Gluing

The quality of a glued joint depends on the materials to be glued, the size of the glued area, and the adhesive used.

The following should be taken into consideration:

- 1) Only glue the same materials.
- 2) Glue as large an area as possible.
- 3) Use suitable glues and follow the technical instructions.
- 4) Before starting series production, test the adhesion under conditions of use, for example temperature, strain, etc.

Tolerances on plastics according to DIN 16901

Deviations from the nominal dimensions are unavoidable in the manufacture of plastic mouldings.

There are various reasons for these deviations:

- a) Processing parameters. These depend on
- the evenness of the moulding compounds
 - the setting of the machine
 - the temperature of the tools
 - the distortion of the tool under pressure.

The tolerances for this standard have been laid down taking into account these factors and numerous measurements in practice.

The plastics in this standard are divided into tolerance rows. All the plastics used by BOPLA for standard enclosures are in row 130, for which the tolerances given below apply.

The tolerances apply on the basis of the machining shrinkage worked into the tool only for the appropriate enclosure with the standard material stated.

- b) The condition of the tool:
- manufacturing tolerances for tool dimensions
 - wear on tools
 - deviations in the position of movable tool parts.

Nominal measuring range

over up to	0 1	1 3	3 6	6 10	10 15	15 22	22 30	30 40	40 53	53 70	70 90
A	±0.18	±0.19	±0.20	±0.21	±0.23	±0.25	±0.27	±0.30	±0.34	±0.38	±0.44
B	±0.08	±0.09	±0.10	±0.11	±0.13	±0.15	±0.17	±0.20	±0.24	±0.28	±0.34

over up to	90 120	120 160	160 200	200 250	250 315	315 400	400 500	500 630	630 800	800 1000	
A	±0.51	±0.60	±0.70	±0.90	±1.10	±1.30	±1.60	±2.00	±2.50	±3.00	
B	±0.41	±0.50	±0.60	±0.80	±1.00	±1.20	±1.50	±1.90	±2.40	±2.90	

A = Dimensions which are not tool-specific are those formed by the interaction of movable tool parts, e.g. wall thicknesses and floor thicknesses or dimensions which are affected by additives or slide bars.

B = tool-specific dimensions are those in the same part of the tool

Information on membrane keypad tolerances:

The installation areas for membrane keypads are dimensioned in the catalogue illustrations (Internet) with the tolerances which are present during manufacture. These tolerances are already restricted in comparison with DIN 16901.

As the membrane dimensions are also furnished with manufacturing tolerances, this may result in undesirable crack dimensions (greatest dimension - enclosure, smallest dimension - membrane). In the case of membrane keypads developed by Bopla, this is reduced to a minimum.

The material properties of plastics

Material properties	Unit	Test specifications	PS	ABS	PC	SE1 GFN1	PC/ABS-blend	PA6.6 FR	PA6 FR (NV12)	PA6 GF 15	UP-GF
Impact strength + 20°C	KJ/m ²	ISO 179	-	60	without	30	-	-	without	36	49
Impact strength - 40°C		DIN 53453	-	40	breaking	30	-	-	breaking	-	-
Notched impact str. (Charpy) + 20°C	KJ/m ²	ISO 179	7	10	25	-	-	-	3,5	55	-
Notched impact str. (Charpy) - 40°C		DIN 53453	4	4	10	-	-	-	-	-	-
Max. bending stress	N/mm ²	ISO 178	-	64	>70	110	-	-	-	-	>100
		DIN 53452									
Round body pressure stress	°C	ISO 335-1	-	75	125	125	125	-	125	-	-
		DIN 0471/2-5									
Retention of shape under heat ¹⁾ A	°C	ISO75	75	80	125	120	120	90	70	150	150
Retention of shape under heat ¹⁾ B		DIN 53461	-	85	135	130	130	215	10	210	-
Thermal conductivity	W/mK	DIN 52612	0.17	0.18	0.2	0.23	-	-	-	-	0.6
		ASTM C 177									
Glow hot wire test	°C	ISO 695	-	650/2	850/1	960/3,2	960/2	-	850/1	-	-
	with mm	DIN 0471/2-1									
Combustibility	Grade	UL 94	HB/1.47	HB/1.6	V2/1.14	V1/1.47	V0/1.6	V0/1	V2/1.6	HB/1.6	V0/4
	from mm										
Water absorption	%	ISO 62	< 0.1	0.4	0.35	0.22	-	2.2	2.5	2.2	0.7
		DIN 53495									
		ASTM D 570									
Surface resistivity	Ohm	IEC 93	> 10 ¹³	> 10 ¹⁴	> 10 ¹⁵	> 10 ¹⁵	-	> 10 ¹⁵	> 10 ¹²	-	> 10 ¹²
Special volume resistivity	Ohm x cm	IEC 93	> 10 ¹⁶	> 10 ¹⁵	> 10 ¹⁶	> 10 ¹⁵	-	> 10 ¹⁵	> 10 ¹⁵	> 10 ¹²	> 10 ¹³
		DIN 53482									
		VDE 303 T3									
		ASTM 257									
Dielectric strength	KV/mm	IEC 243	-	-	28	26	-	-	-	-	18
		DIN EN 53481									
		VDE 303 T2									
		ASTM 149									

¹⁾ The ability of the enclosures to maintain their shape when subject to heat depends on a seal being inserted. The temperature resistance can still be affected by mechanical stress.

All the above data are for guidance only. They have been determined using standardized test pieces and can vary within normal tolerances. The combustibility classification always refers to the raw material, which was tested on ideal test pieces. In the case of manufactured parts, deviations caused by different material thicknesses and the effects of processing are unavoidable.

Chemical resistance of plastics

	PS	ABS	PC	PC/ABS blend	PA	UP-GF Polyester
Acetone	---	---	---	---	+	---
Formic acid	40 %	---	---	---	---	10 %
Ammonia	+	25 %	---	---	10 %	---
Benzene	---	---	○	---	+	---
Brake fluid	Δ	○	---	---	+	+
Butane	---	+	+	+	+	Δ
Butanol	Δ	Δ	Δ	Δ	+	+
Calcium chloride	+	+	+	Δ	10%	+
Chlorine benzole	---	---	---	---	+	+
Diesel oil	---	+	○	Δ	+	+
Acetic acid	50 %	25 %	10 %	10 %	5 %	10 %
Formaldehyde	40 %	30 %	Δ	Δ	○	30 %
Frigen 113	Δ	---	+	---	+	+
Fruit juice	Δ	Δ	+	Δ	+	+
Glycerine	+	+	○	Δ	+	+
Heating oil	---	○	○	Δ	+	+
Hydraulic oil	Δ	Δ	+	---	+	+
Caustic potash solution	50 %	50 %	---	---	50 %	---
Potassium chloride	+	Δ	+	Δ	10 %	+
Potassium hydroxide	Δ	Δ	Δ	Δ	Δ	---
Linseed oil	+	+	+	+	+	+
Methanol	Δ	Δ	---	Δ	○	---
Methylene chloride	---	---	---	---	○	---
Lactic acid	80 %	80 %	+	+	○	+
Mineral oils	Δ	Δ	+	Δ	+	+
Engine oils	○	+	+	Δ	+	+
Sodium carbonate	+	+	+	Δ	10 %	+
Sodium chloride	+	+	+	+	---	+
Sodium hydroxide	Δ	+	Δ	Δ	Δ	---
Soda lye	50 %	50 %	---	---	+	40 %
Nitric acid	10 %	---	10 %	Δ	---	10 %
Hydrochloric acid	10 %	○	20 %	Δ	---	---
Lubricating oil	Δ	Δ	+	Δ	+	+
Carbon disulphide	---	---	---	---	+	---
Sulphuric acid	50 %	50 %	50 %	50 %	---	---
Soap suds	Δ	Δ	○	Δ	Δ	+
Detergents	Δ	Δ	+	+	Δ	Δ
Turpentine oil	---	Δ	○	Δ	+	+
Hydrocarbon tetrachloride	---	---	Δ	---	+	+
Toluol	---	---	---	---	+	---
Trichloroethylene	---	---	---	---	+	---
Water (distilled, river, tap, sea)	+	+	+	+	+	+
Tartaric acid	+	+	+	+	10 %	+
Xylol	---	---	---	---	+	+
Zinc sulphate	+	+	+	+	Δ	+
Citric acid	+	+	10 %	+	Δ	+

Symbols

- + resistant to all concentrations
- % resistant to this max. percentage concentration
- resistant under certain conditions
-
- Δ no information available

Unless otherwise stated, the tests were carried out at room temperature.

If different media coincide, resistances may change; consequently, we cannot accept any liability for these data.

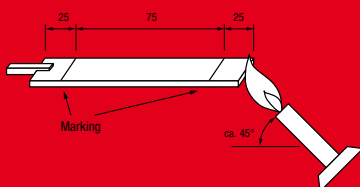
Flame retardance of plastics

Standard 94 of the Underwriters Laboratories (UL94) is accepted world-wide as the predominant standard for classifying the flame retardance of plastics. The procedure according to UL94 is to test the ability of the material to extinguish itself after flaming. The classification is according to the speed of burning and the extinguishing time, droplet formation, and the duration of afterglow time.

Depending on the wall thickness, several classifications are possible for each material. The basis for the appropriate specification of a material should correspond to the thickness of the moulding's main wall. Information on the UL 94 classification is only comparable and meaningful if it specifies the relevant wall thickness.

UL 94 HB

The test specimen is held horizontally and a flame brought up to it. For wall thicknesses up to 3 mm, the rate of combustion must be less than 75 mm/min, and less than 40 mm/min for wall thicknesses of 3 mm and over.

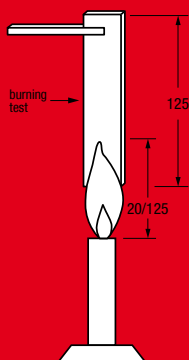


Often misunderstood:

Non-flame-retardant qualities (or materials which are not intended for flame-retardant applications) do not automatically meet horizontal burning criteria. Although the least rigorous, UL 94 HB is a category of flammability and can only be achieved by means of testing.

UL 94 V0, V1 and V2

In this category, test bars with the same dimensions and with a flame height as used for HB tests are tested vertically, but not horizontally. In addition to the burn and glowing combustion time, the decisive factor is whether burning drops form and whether they ignite the cotton wool underneath the test bar, which is only permissible for V2.



UL 94 V2

Test specimen vertical, flame height 20 mm; self-extinguishing up to 30 s after the flame has been removed; burning droplets are permissible; afterglow = max. 60 s.

UL 94 V1

Test specimen vertical, flame height 20 mm; self-extinguishing up to 30 s after the flame has been removed; no burning droplets; afterglow = max. 60 s.

UL 94 V0

Test specimen vertical, flame height 20 mm; self-extinguishing up to 10 s after the flame has been removed; no burning droplets; afterglow = max. 30 s.

UL 94 5V

This burning test is used to determine flammability classes UL 94 5VB and UL 94 5VA. In addition, plastics which meet at least classification V-2 can be tested – in this case, the flame height is 125 mm.

The process exposes a vertically-mounted specimen 5 times for a period of 5 seconds with pauses of 5 seconds.

In addition to the test criteria as per UL 94 V, this flammability test also takes into consideration the formation of holes in panels.

	UL 94 5VA	UL 94 5VB
Afterflame time / afterglow time of the test specimens after the 5 th flame application [sec]	< 60	< 60
Burning droplets	no	no
Hole formation (in panels)	no	yes

The flammability category always refers to the raw material, tested using ideal test pieces. In the case of manufactured parts, deviations caused by different material thicknesses and the effects of processing are unavoidable.

Material characteristics of seals

Test specifications: DIN 53461	Neoprene CR	Polyurethane PU	EPDM	Silicone Si	Perbuan N NBR	TPE
Permitted temperature range	-30 to +90°C	-30 to +100°C	-35 to +120°C	-60 to +200°C	-35 to +100°C	-40 to +70°C

The chemical resistance of seals

	Neoprene CR	Polyurethane PU	EPDM	Silicone Si	Perbunane N NBR	TPE
Acetone	o	o	+	o	---	---
Formic acid	o	Δ	+	o	Δ	o at 10 %
Ammonia	+	---	+	+	+	+
Benzene	o	+	---	+	o	Δ
Brake fluid	o	Δ	o	+	o	Δ
Butane	Δ	+	---	---	+	Δ
Butanol	+	---	+	Δ	+	Δ
Calcium chloride	Δ	+	+	Δ	+	Δ
Chlorine benzole	---	---	---	---	---	Δ
Diesel oil	o	+	---	o	+	Δ
Acetic acid	75 %	Δ	+	---	---	5 %
Formaldehyde	+	+	+	+	40 %	Δ
Frigen 113	o	Δ	---	Δ	+	Δ
Fruit juice	+	+	+	+	---	+
Glycerine	+	+	+	+	+	+
Heating oil	o	+	---	o	+	Δ
Hydraulic oil	---	+	---	o	o	Δ
Caustic potash solution	+	Δ	+	Δ	o	Δ
Potassium chloride	Δ	Δ	+	+	+	Δ
Potassium hydroxide	+	---	+	o	o	+
Linseed oil	+	+	---	o	+	Δ
Methanol	+	---	+	+	+	Δ
Methylene chloride	---	---	---	---	---	Δ
Lactic acid	+	+	+	Δ	+	o
Mineral oils	o	o	---	+	+	Δ
Engine oils	o	o	---	+	+	Δ
Sodium carbonate	Δ	Δ	+	Δ	+	Δ
Sodium chloride	+	Δ	+	+	+	Δ
Sodium hydroxide	50 %	---	+	o	o	+
Soda lye	50 %	---	+	---	o	50 %
Nitric acid	---	---	10 %	---	---	+
Hydrochloric acid	o	---	+	Δ	---	+
Lubricating oil	o	Δ	---	+	+	Δ
Carbon disulphide	---	o	---	+	---	Δ
Sulphuric acid	50 %	---	20 %	25 %	o	+
Soap suds	---	+	+	+	+	Δ
Detergents	o	+	+	+	+	Δ
Turpentine oil	---	---	---	---	+	Δ
Hydrocarbon tetrachloride	---	---	---	---	---	Δ
Toluol	---	---	---	---	---	Δ
Trichloroethylene	---	---	---	---	---	Δ
Water (distilled, river, tap, sea)	+	+	+	+	+	+
Tartaric acid	o	Δ	+	+	---	Δ
Xylol	---	---	---	---	---	Δ
Zinc sulphate	Δ	Δ	+	+	+	Δ
Citric acid	Δ	Δ	+	+	---	Δ

Symbols

- + resistant to all concentrations
- °C resistant to this max. °C
- % resistant to this max. percentage concentration
- not resistant
- o resistant under certain conditions
- Δ no information available



Technical information

Aluminium

The Euromas aluminium enclosures have a tongue and groove system; they have a foam rubber gasket that is resistant to oil and benzene and provides protection class IP 66. Special seals can be inserted for special requirements. These are particularly resistant, e.g. to heat and chemicals, or will guarantee improved EMC shielding. The standard enclosures are made of Al Si 12 alloy and are low-corrosive. Under the effect of oxygen, aluminium forms a thick, firmly-adhering oxide layer on its surface. This is highly resistant to corrosion and protects the metal underneath from further oxidation. In cases where this natural corrosion protection is not sufficient, special surface treatments can give greater protection against corrosion. These treatments include

passivating, lacquering, or a combination of passivating and lacquering. This last is especially suitable if corrosion-proofing against sea water is needed. When lacquering, an additional priming coat or several final coats of lacquer will give greater protection. Standard powder-coating is carried out, independent of the colour chosen, on an electrostatic belt. The coating is then annealed in a 45-minute process at a temperature of about 120°C. This gives a permanent, hard surface which will not rub off.

Our standard powder-coating processes are:

- a) Degreasing
- b) Powder-coating
 - Depth of layer > 50 µm
 - Base: polyester amino-resin
 - Pigment: lead, chromate-free
 - Surface: structured, silicone-free

Our standard lacquering has shown good resistance to chemicals: mineral oils, motor fuels, drilling emulsions, cleaning fluids, weak acids

and lyes, weak solvents and weathering. On request, we can also use other lacquers or processes. A different surface structure or gloss can also be obtained.

On principle, always take into consideration that the various aluminium casting processes result in different surface qualities. While diecasting gives a smooth, even surface, chill casting results in a slightly grainy surface. This affects special requirements regarding surface quality, e.g. for screen-printing, engraving, etc.

General advice for machining aluminium enclosures

Please make sure that all residues of any coolants or lubricants used in machining are removed if plastic parts must be attached to aluminium enclosures (e.g. plastic cable glands, adapters, plugs, etc.). Coolants and lubricants can cause plastic parts to become brittle and split. Also, remember that when aluminium castings are machined, enclosed air bubbles, known as shrinkage holes, can be revealed. The casting process and alloys we use result in very few shrinkage holes.

Instructions for machining aluminium panels

For reasons of design and stability, we offer aluminium front panels for many of our plastic enclosures. These panels are cut from anodised plate material, so the surfaces have an anodised layer, but the cut edges do not.

Please remember that screen-printing or tampon printing on the anodised layer may not always adhere properly. When machining and imprinting front panels to customer specifications, we use aluminium plate material which, depending on the requirements, is only anodised after imprinting. The advantages are that all the edges are corrosion-proof, and any imprinting will not rub off.

The properties of aluminium alloys

Properties	Units	GD-Al Si 9 CU 3 (diecasting)	GD-Al Si 12 (diecasting)	GK-Al Si 12 (chill casting)	Al Mg Si 0,5 (wrought alloy)
Density	g/cm ³	2.65	2.65	2.65	2.7
App. yielding point	N/mm ²	140	130	80	160
Tensile strength	N/mm ²	240	240	170	215
Ductile yield	%	< 1	1	6	12
Brinell hardness	HB	80	60	55	no inform. avail.
Electr. resistivity	m/Ohm mm ²	no inform. avail.	17 – 27	17 – 27	28 – 34
Therm. conductivity	W/mK	110 – 120	130 – 160	140 – 170	190 – 210
Heat resistance	°C	200	200	200	200
Cold resistance	°C	-100	-100	-100	-100

The chemical resistance of aluminium

	Reaction	Remarks
Acetone	+	
Formic acid	o	
Ammonia	+	
Benzene	+	
Benzole	o	contains no H ₂ O = + contains H ₂ O = o
Drilling oil, cutting oil	+	
Butane	+	gaseous
Calcium chloride	+	
Chlorine benzole	+	
Acetic acid	+	
Fat, wax	+	
Formaldehyde	+	free of formic acid
Glycerine	+ ---	contains NaCl = ---
Heating oil	+	
Potassium chloride	o	
Potassium hydroxide	---	
Linseed oil	+	< 250°C
Methanol	+	
Methylene chloride	+	
Lactic acid	+	
Sodium carbonate	o	

	Reaction	Remarks
Sodium chloride	o	
Sodium hydroxide	+	free of H ₂ when molten
Petroleum	+	
Propane	+	
Nitric acid	+	
Lubricating oil	+	
Soap suds	+	
Carbon disulphide	+	
Sulphuric acid	o	
Hydrocarbon tetrachloride	+	
Toluol	+	
Trichloroethylene	+	light metal tri
Water vapour	+	
Hydrogen	+	
Xylol	+	
Zinc sulphate	o	
Citric acid	+	

Symbols: + resistant o resistant under certain conditions --- not resistant

Unless otherwise stated, the tests were carried out at room temperature.

If different media coincide, resistances may change; consequently, we cannot accept any liability for these data.



Tolerances for pressure diecastings (DIN 1688, part 4 : 1986-08)

Important: We assume no liability for cited standards!

Table 1: Tolerances of dimensions not related to the shape, linear dimensions
(lengths, widths, heights, central distances, diameters, roundings)

Spatial diagonal area ¹	Degree of accuracy	Shape dependency	Nominal measuring range													
			up to 18	over 18 to 30	over 30 to 50	over 50 to 80	over 80 to 120	over 120 to 180	over 180 to 250	over 250 to 315	over 315 to 400	over 400 to 500	over 500 to 630	over 630 to 800	over 800 to 1000	over 1000 to 1250
up to 180	GTA 13	shape-related	± 0.14	± 0.17	± 0.20	± 0.23	± 0.27	± 0.32								
		non-shape-related	± 0.24	± 0.27	± 0.30	± 0.33	± 0.37	± 0.42								
over 50 to 500	GTA 13/5	shape-related	± 0.17	± 0.20	± 0.25	± 0.30	± 0.35	± 0.40	± 0.45	± 0.50	± 0.55	± 0.60				
		non-shape-related	± 0.32	± 0.35	± 0.40	± 0.45	± 0.50	± 0.55	± 0.60	± 0.65	± 0.70	± 0.75				
over 180	GTA 14	shape-related	± 0.22	± 0.26	± 0.31	± 0.37	± 0.44	± 0.50	± 0.60	± 0.65	± 0.70	± 0.80	± 0.90	± 1.00	± 1.20	± 1.30
		non-shape-related	± 0.42	± 0.46	± 0.51	± 0.57	± 0.64	± 0.70	± 0.80	± 0.85	± 0.90	± 1.00	± 1.10	± 1.20	± 1.40	± 1.50
over 500	GTA 14/5	shape-related	± 0.25	± 0.35	± 0.40	± 0.45	± 0.55	± 0.65	± 0.75	± 0.80	± 0.85	± 0.95	± 1.10	± 1.20	± 1.40	± 1.60
		non-shape-related	± 0.55	± 0.65	± 0.70	± 0.75	± 0.85	± 0.95	± 1.00	± 1.10	± 1.10	± 1.20	± 1.40	± 1.50	± 1.70	± 1.90

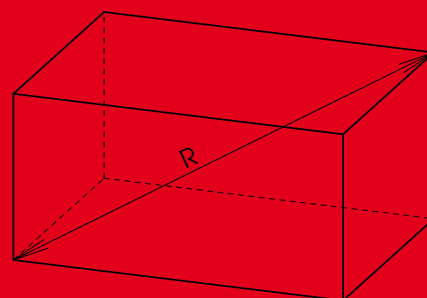
Table 2: Dimensional cast variations for thicknesses
(wall thicknesses, fins, ribs)

Spatial diagonal area ¹	Degree of accuracy	Shape dependency	Nominal measuring range		
			up to 18	over 18 to 30	over 30 to 50
up to 180	GTA 13	shape-related	± 0.15	± 0.20	± 0.20
		non-shape-related	± 0.25	± 0.30	± 0.30
over 50 to 500	GTA 13/5	shape-related	± 0.20	± 0.25	± 0.30
		non-shape-related	± 0.35	± 0.40	± 0.45
over 180	GTA 14	shape-related	± 0.25	± 0.30	± 0.35
		non-shape-related	± 0.45	± 0.50	± 0.55
over 500	GTA 14/5	shape-related	± 0.30	± 0.40	± 0.45
		non-shape-related	± 0.55	± 0.65	± 0.70

1) Determining the spatial diagonal:

The spatial diagonal R is determined by the extreme points of the casting. It is calculated from the nominal dimensions of the prismatic body, which delimits the casting, whatever its shape.

$$R = \sqrt{l^2 + b^2 + h^2} \quad (\text{spatial diagonal})$$



Shape-related dimensions are those in the same parts of the tool. Non-shape-related dimensions are those created by the interaction of movable tool components, e.g. wall thicknesses and base thicknesses or dimensions affected by additives or slides.

Tolerances for aluminium profiles (DIN EN 12020-2 : 2001-07)

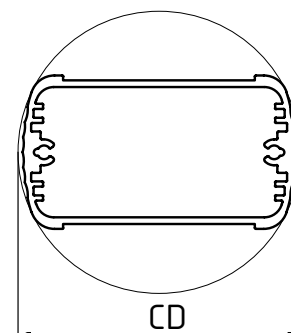
Important: We assume no liability for cited standards!

Cross-section dimensions

General information

The limit deviations of the following dimensions are specified in the corresponding tables 1 and 2.

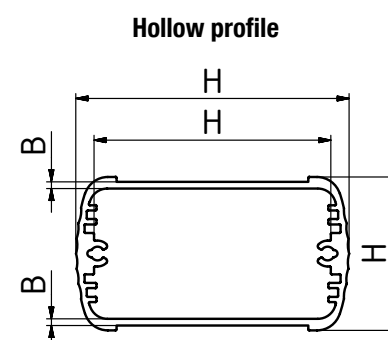
- A: Wall thicknesses, except for those which enclose the hollow spaces in hollow profiles;
- B: Wall thicknesses which enclose the hollow spaces in hollow profiles, except for wall thicknesses between two hollow spaces;
- H: all dimensions except for wall thickness;
- CD: Circumscribing circle



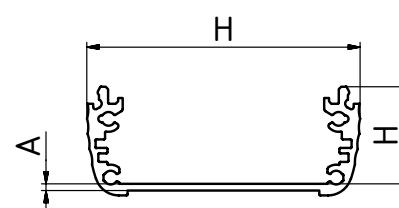
Limit deviations for dimensions other than wall thickness

Table 1 – Limit deviations for cross-section dimensions

Dimension H		Limit deviations for H
over	up to	
–	10	± 0.15
10	15	± 0.20
15	30	± 0.25
30	45	± 0.30
45	60	± 0.40
60	90	± 0.45
90	120	± 0.60
120	150	± 0.80
150	180	± 1.0
180	240	± 1.2
240	300	± 1.5



Solid profile



Z-2803301

Limit deviations of wall thicknesses of solid and hollow profiles

Table 2 – Limit deviations of the wall thicknesses

Nominal wall thickness A and B		Limit deviations for			
		Wall thickness A (Circumscribing circle)		Wall thickness B (Circumscribing circle)	
over	up to	CD ≤ 100	100 < CD ≤ 300	CD ≤ 100	100 < CD ≤ 300
—	1,5	± 0.15	± 0.20	± 0.20	± 0.30
1,5	3	± 0.15	± 0.25	± 0.25	± 0.40
3	6	± 0.20	± 0.30	± 0.40	± 0.60
6	10	± 0.25	± 0.35	± 0.60	± 0.80

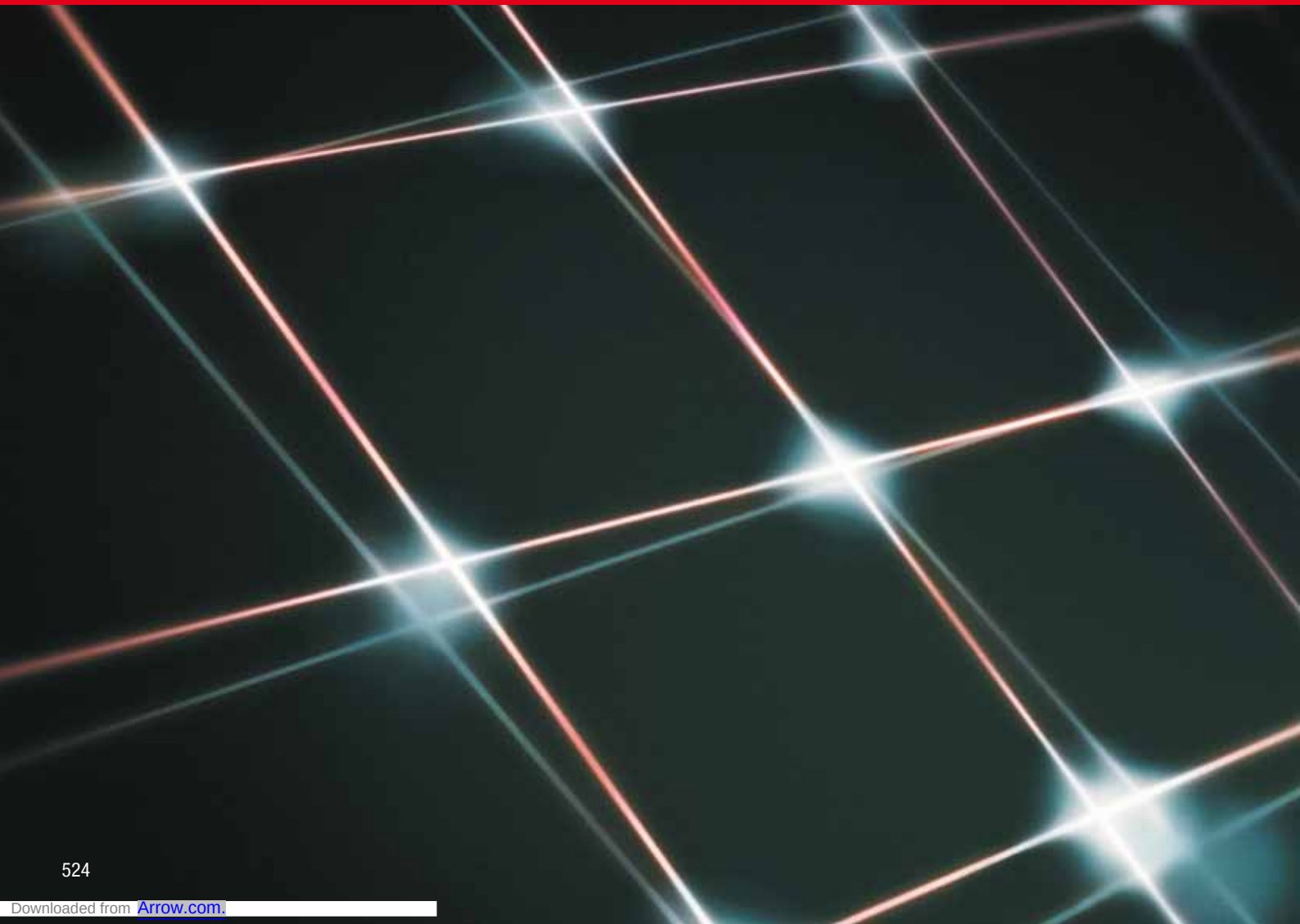
All dimensions in mm.



Welcome to **BOPLA City!**

Overview of standards – defined standards in the 19" sector

As a company which operates internationally in the field of enclosures, and a major partner to electronics markets, we always do our best to offer our products in a standard which applies worldwide. For the 19" sector in particular, this means that internationally valid standards are required which define dimensions – depending on the model – and the possibility of physical integration. In addition, criteria for electrical compatibility as well as shock and vibration resistance are defined most precisely in individual standards, and this ensures reliability worldwide. You can trust our products – put your faith in BOPLA!



Depending on the model, the following standards apply to our products:

Internal and external dimensions correspond	Refers to product group
IEC 60297-3-101 (DIN EN 60297-3-101) / IEEE 1101.1 (subracks and plug-in units)	Intertego (in part sections), Internorm Stil, Interzoll Plus, Internorm (for fitting 19" plug-in units), Interzoll Modul, Interzoll, part front and plug-in front panels, extractor handles (HGS), frame-type plug-in units
IEC 60297-3-102 (DIN EN 60297-3-102) / IEEE 1101.10/11 (injector/extractor handles)	Internorm Stil, Interzoll Modul, , extractor handles (HGS)
IEC 60297-3-103 (DIN EN 60297-3-103) (keying and alignment pin)	Interzoll Modul, extractor handles (HGS)
Earth conductor connections correspond	Refers to product group
DIN EN 50178 / VDE 0160	Internorm Stil
DIN EN 60950 part 1 / VDE 0805 part 1	Internorm Stil
DIN EN 61010-1 / VDE 0411 part 1	Internorm Stil
EMC test acc. to	Refers to product group
VG 95373 part 15	Intertego, Internorm Stil
IEC 61587-3	Interzoll Modul
Shock and vibration test acc. to	Refers to product group
IEC 61587-2	Interzoll Modul
BN 411002	Interzoll Modul, Interzoll
BN 411003	Interzoll Modul
EN 50155	Interzoll Modul
For direct screw-type connectors acc. to:	Refers to product group
IEC 60603-2 (DIN EN 60603-2, formerly: DIN 41612)	Internorm Stil, Interzoll Plus, Interzoll Modul, Interzoll, Intertego, CombiCard 1000-7000
For plug-in units acc. to:	Refers to product group
IEC 60297-3-101 (DIN EN 60297-3-101)	Internorm Stil, Interzoll Plus, Interzoll Modul, extractor handles (HGS), plug-in front panels, frame-type plug-in units, Interzoll, Intertego, CombiCard 1000-7000
For plug-in units with insertion and extraction function acc. to:	Refers to product group
IEC 60297-3-102 (DIN EN 60297-3-102) / IEEE 1101.10/11	Internorm Stil, Interzoll Modul, extractor handles (HGS)
Protection class acc. to	Refers to product group
DIN EN 60529; VDE 0470-1	Internorm Stil (IP 20), Internorm (IP 54), Interzoll Modul (IP 20), Interzoll (IP 20), Interzoll Plua (IP 20), Intertego (IP 40 / 20 – with ventilation)



Electro-magnetic compatibility

European EMC directive 2004/108/EC was developed within the framework of the standardization of national regulations and has been in force since July 20, 2007. This makes it necessary to submit to EMC tests not only radio equipment but also all electrical and electronic equipment, plants and systems. The purpose of this test is to obtain the awarding of the CE mark which is the pre-condition for the operation of all electrical equipment.

If electro-magnetic compatibility cannot be achieved by means of EMC compatible circuit design and/or metallic internal encapsulation, appropriate measures can be taken in respect of the enclosure. For the

choice of an enclosure, this means that an electrical component with EMC can be used in any desired enclosure in 90% of cases without any further work or costs. To achieve shielding, there is no need to sacrifice the essential advantages of plastic enclosures:

- an attractive design
- considerable price savings
- much lighter and more variable

Shielding with plastic enclosures

Generally, plastic enclosures can also be screened effectively without losing the advantages of plastic. At present, shielding is achieved by adding a metal coating inside or outside the enclosure.

We prefer to use copper conductive lacquer for reasons of cost and time. However, in view of the regulations relating to the disposal of electrical scrap, these costs now have to be taken into consideration when calculations are made. Please note that we are unable to take back enclosures which have been specially coated at the customer's request. The aluminium vapour-blasting process is performed in high-vacuum plants. We use a coating of at least 2.5 µm as standard. However, greater thicknesses are possible at any time if required, depending on the enclosure material.

The mechanical properties of the plastic are not altered by the vapour-blasting, so no brittleness or tears will result. The new type of copper-chrome-nickel coating (CU/Ni/Cr) gives the modular and fully-insulated enclosures an increased level of EMC protection. Coating masks are

now available for most of our standard enclosures, so that these can be screened at very low cost. In all cases where the procedures described above are not sufficient to provide shielding, the use of contact seals may increase the shielding efficiency. We can recommend or specify these special seals and then deliver them on the basis of customer-specific requirements and the type of enclosure.

Another effective screening measure is to provide an inner metal cap for components, component groups or the entire electronics, if these parts are highly sensitive to radiation interference. This capping can also intensify the screening measures described above.

To complete EMC measures, for cable insertion we supply the appropriate plastic or metal cable glands with the possibility of connecting the cable screening to the enclosure earthing connection. If you require information on the damping values for various BOPLA enclosures with the appropriate screening, please ask for our specific EMC information.

Shielding in the case of aluminium enclosures

Under certain circumstances, the material used for aluminium enclosures may provide some EMC reduction. However, the joints (tongue and groove) need to be fitted with the appropriate conductive seals for optimal EMC applications. Please also note that the lacquer coatings must be bridged. This can be done with the appropriate conductive seals or by removing the lacquer coatings. The amount of work involved must be made clear when the requirements are specified.

If necessary, we will give you the addresses of competent contact persons and institutes who will help you with EMC problems. They will carry out the necessary tests and measurements for you and can issue certificates.

IMPORTANT

All technical details are provided to the best of our knowledge but do not release the user from the obligation to test the suitability of these details in respect of the intended processes and purposes. The customer bears the responsibility with regard to the suitability and use for the intended purpose of our products.

All liability on the part of BOPLA Gehäuse Systeme GmbH in connection with technical information of any kind whatsoever is excluded. We reserve the right to optimise products, to change materials and to amend drawings.



Welcome to BOPLA City!

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19"-technology

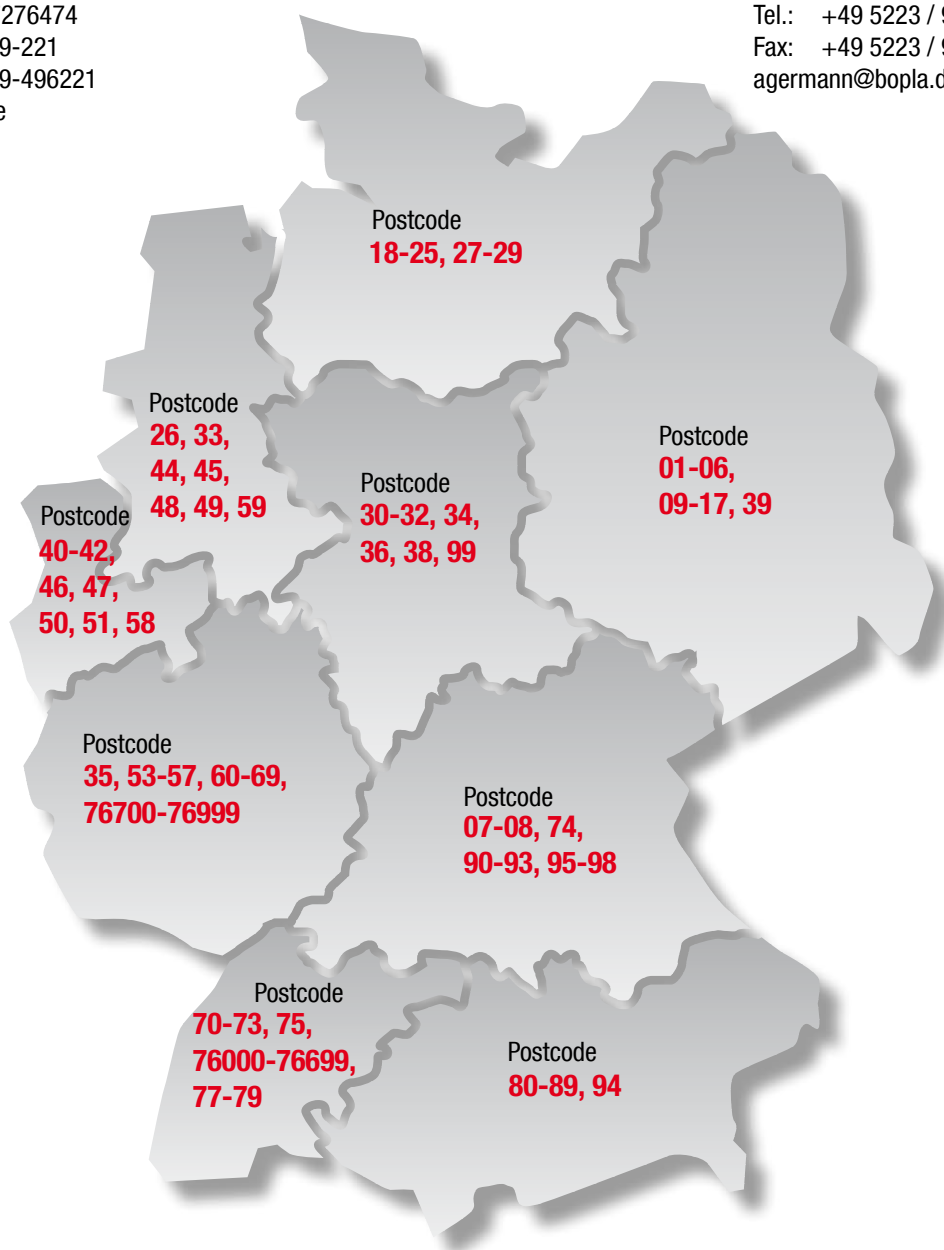
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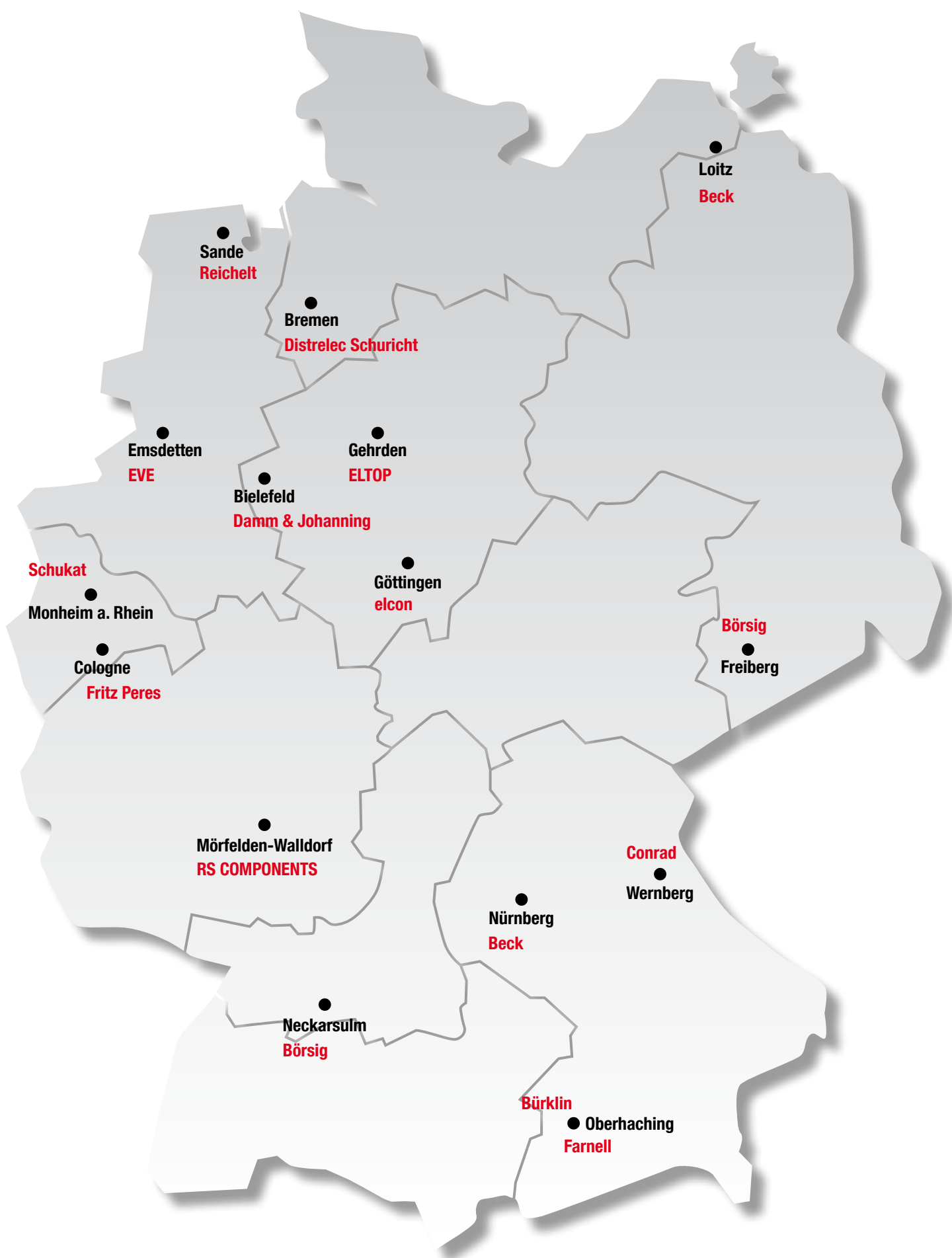
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