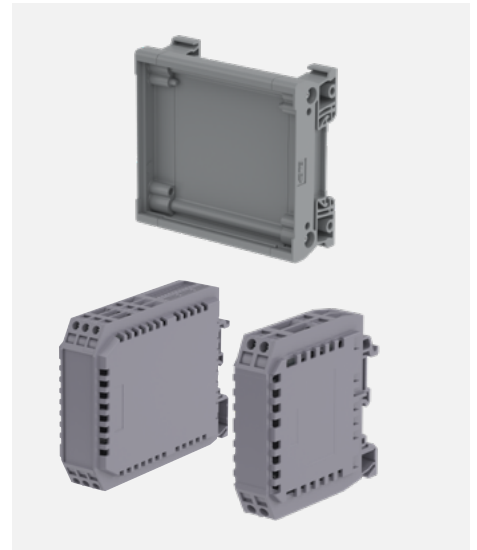
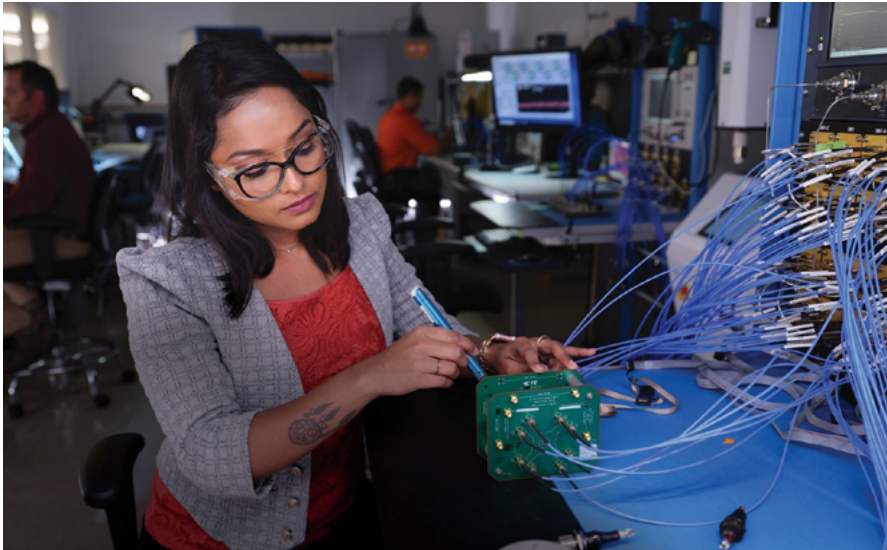
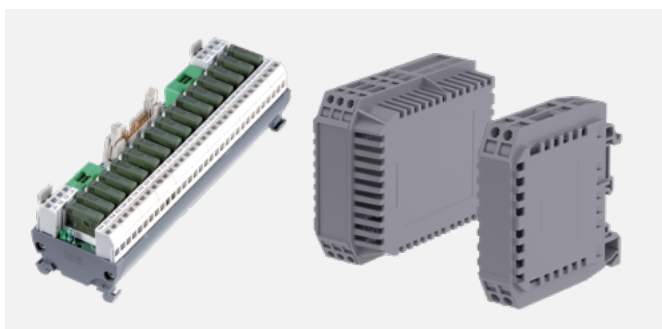




COMPONENT HOLDER MODULES

Din rail mounted empty holder modules

For Component & Printed Circuit Boards



THE ERGONOMIC SOLUTION TO FIT YOUR ELECTRONIC COMPONENT & CIRCUITS INTO CONTROL PANEL

The TE Connectivity empty modules are designed to ease the mounting and the connection of component and Printed Circuit Boards with the equipment located within the control cabinet. They provide Din Rail mount housing as well as reliable screwclamp connections.

Design Reliability

Reliability

- Closed modules offer IP20 & circuit protection.
- Closed end plate ensures dust protection when needed.
- End plates with openings on the side allow good thermal dissipation for longer circuit life.
- Screw clamp terminals use reliable and high quality ENTRELEC design.
- Connection to the PCB is achieved through 2 soldering points to provide high mechanical resistance and PCB's stability.
- Terminals are firmly locked by plastic retention shapes to prevent PCB stress during tightening.

Flexible to use

Modular and scalable concept to match many projects from prototyping, single circuits to multi circuits configuration, component holder, standard and SMT printed circuit board.

Design flexibility

- Closed modules allow PCB to be mounted perpendicular to mounting rail for space saving.
- Open modules allow PCB mounting horizontal to mounting rail for easy access to components (replacement/test maintenance).
- Several size of side plates to obtain either a compact design or to fit large components.
- The body incorporate 4 holes on top to fit an indicator, potentiometer ...
- 11 000 series modules are equipped with side removable walls to fit 2x HE14 connectors for extra pluggable connection points.
- Optional pre-punched ready to be used PCB's allow user to make prototyping easily.
- Mounting foot adapted to DIN1 & DIN3 mounting rails.

For all your needs

Fit many functions in the control panel: Protection, Control, Data, Signal, Supply, Interface...

By design our modules allow to fit a large scope of devices within the control panels from single components to relays, surge protections, complex analog or digital conditioners etc.

Closed modules:

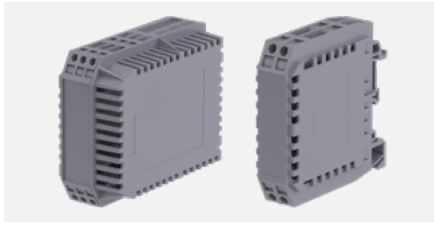
- Two sizes to fit PCB surface of 13.5 & 35 cm²
- 8 or 12 screw clamps connections of 2.5 mm²
- 4 colours (grey, orange, blue, black)
- Spacing from 22.5 mm (0.88") and 35 mm (1.37").

Open modules:

- 3 width of 50, 71 & 100 mm
- Compatible with PCB from 10.7 mm to 500 mm long.

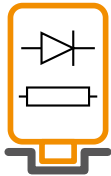
Component holder modules

Applications & solutions



Closed modules

The TE closed component holders are adapted to create modular finished products that can be mounted side by side on the rail. With up to 12 connections and various plate thicknesses they offer the best configuration to mount signal and power components for a wide range of functions.



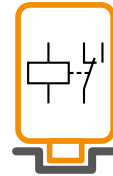
Component/PCB holder

- Diodes (rectifiers)
- Varistors, transistors, gas discharge tubes... (Transient/surge suppression)
- Resistor (voltage dropping)
- Potentiometers (voltage regulation)
- SMT or Standard PCB's, or without PCB.



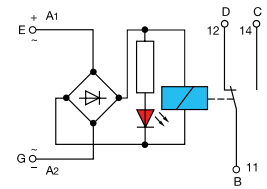
Prototyping

- Our prepunched boards allow soldering of components and wire to prototype a circuit. Boards are pre-equipped with all connections, soldering points and cut at the right dimension of each module.

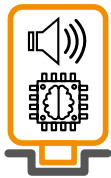


Relay modules

- **10000 series** allows ratings up to 250 VAC & DC, 10A, contact configuration: up to 2xSPDT.
- **11000 series** have same ratings than above with higher number of connections (12) allowing to fit more relay circuits.



(ex: 4 relays with 1 SPDT contact)



Control & Actuator modules

- Alarm/survey modules
- Micro-controllers
- Monitoring devices (Voltage/current/phase control...).



Digital & Analog conditioners

- Voltage/current converters (0-10V, 1-5V, 4-20mA)
- Thermocouples & RTD's (temperature measurement)
- RS422/RS485 converters.



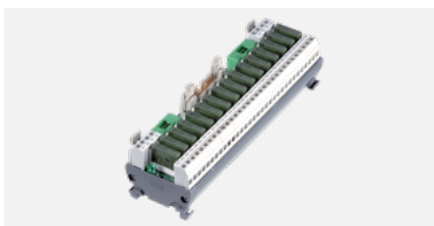
Surge arrestors & Filters

- Signal & Data protection
- Filters (RC network, capacitors...).



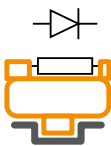
Power supplies/rectifiers

- For small compact power supplies.
- Specific thick end plate allows to fit small transformers.



Opened modules

The TE opened style component holders are adapted to multi-circuit configurations. The system consists of an extruded profile holder equipped with 2 end section feet for DIN rail mounting. Profile is delivered in 3 sizes of width, 500 mm length and can be cut to the usage.



Component holder

- Adapted to mount:
- Large number of components
- Large components (power resistors, heat sink...)
- Can match PLC configurations from 4.8 up to 16 relay boards.



Connection interfaces

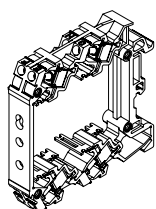
- These functions are used to make interconnection between equipments or to change of connection technology (Ex: from DIN or SUB-D connectors to screw clamp connections).
- When used with pluggable connections or connectors the connection interfaces allow quick circuit disconnection.
- Our modules allow multi-circuit configurations up to 64 poles.



Multi channel relay modules

- Can match PLC configurations from 4.8 up to 16 relay boards.
- Open style allows quick relay replacement when used with a relay/socket configuration.

Series 10 000



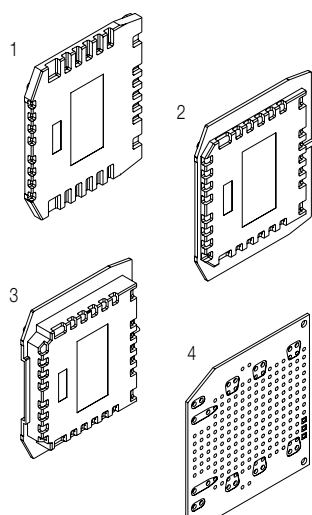
- For PCB surface of 13.5 cm²
- 8 screw clamp terminals
- Heat dissipation 2W
- Spacing 18 mm (0.71") – 23 mm (0.91") and 28 mm (1.10").

Description	Color	Type	Part Number	Pkg Qty	Weight (1 pce) g
Standard body equipped with 8 screw-clamp terminals. NO drilling	Grey	EBS8A.G	1SNA114533R0000	25	20
	Orange	EBS8A.OR	1SNA103305R0200	25	20
	Blue	EBS8A.BL	1SNA124533R0200	25	20
	Black	EBS8A.BK	1SNA104071R2300	25	20
Body equipped with 8 screw-clamp terminals and 4 drillings on top	Grey	EBP8A.G	1SNA113214R1700	25	20

Connection capacity		IEC	UL-CSA
1 conductor	Rigid: Solid/Stranded	0.5 ... 4 mm ²	20-12 AWG
Per clamp	Flexible without ferrule	0.5 ... 2.5 mm ²	20-14 AWG
	Flexible with non insulated ferrule	0.5 ... 2.5 mm ²	20-14 AWG
	Flexible with insulated ferrule	0.5 ... 2.5 mm ²	20-14 AWG
	Rated current of clamp	16 A	
	Rated Voltage	250 V	
	V AC	300 V	
	V DC		
	Protection	IP20	
Material specifications	Insulating material	Polyamide	
	Flammability	V0	
Ambient temperature (Min/max)	Service	-40°C to +100°C	
	Storage	-55°C to +110°C	

Rail		G32, TH 35-7.5, TH 35-15
Wire stripping length		7.5 mm 0.412 in
Tool		Flat screwdriver Ø 3.5 mm Ø 0.138 in
Torque		0.6 Nm ± 0.1 5.31 lb.in ± 0.885

All the main technical data provided are “manufacturer” values

RoHS
RoHS

Description	Color	Type	Part Number	Pkg Qty	Weight (1 pce) g
1 End plate without airing holes. Thickness 3.5 mm 0.138 in	Grey	PFN3.G	1SNA114289R2400	10	5
2 End plate with airing holes Thickness 3.5 mm 0.138 in	Grey	PFN1.G	1SNA113091R0000	25	4.1
	Orange	PFN1.OR	1SNA103259R1300	10	4.1
	Blue	PFN1.BL	1SNA123091R0200	25	4.1
	Black	PFN1.BK	1SNA107007R2700	10	4.1
3 End plate with airing holes Thickness 8.5 mm 0.335 in	Grey	PFN2.G	1SNA113095R0400	25	5.4
	Orange	PFN2.OR	1SNA103260R1000	10	5.4
	Black	PNF2.BK	1SNA107008R0000	10	5.4
4 Prepunched printed circuit board		Cl 115	1SNA174021R1600	10	10

Series 10 000

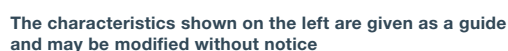
Component holder spacing is determined by required internal volume for component packaging.

*: Max. height of components



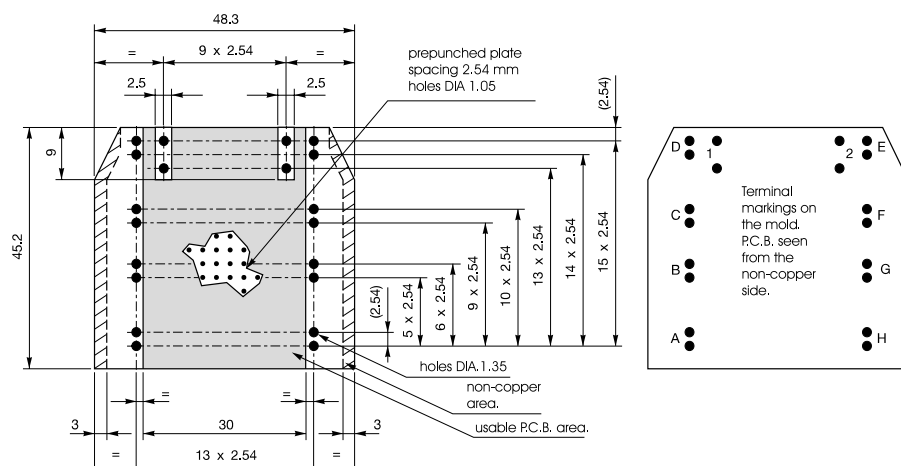
Thermal characteristics of modules

- For maximum reliability, the mounting method must be determined according to the power dissipated in the interface module, and the ambient temperature around the modules.
- Inversely, knowing the type of mounting, **A** or **B**, and the power dissipated, the curve (left) determines the maximum recommended ambient temperature.

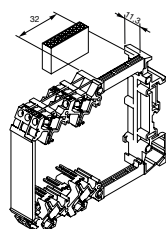
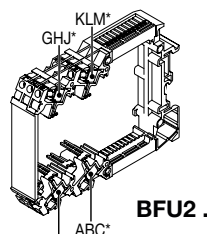


- Material: Epoxy resin UL94 V0
- Copper thickness: 35μm
- Prepunched with holes of 1.05 mm and 2.54 mm spacing.

Cl 115	1SNA174021R1600
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Series 11 000



- For PCB surface of 35 cm²
- 12 screw clamp terminals
- Heat dissipation 4W
- Spacing 22.5 mm (.88") & 35 mm (1.37").

Description	Color	Type	Part Number	Pkg Qty	Weight (1 pce) g
Standard body equipped with 12 screw-clamp terminals	Grey	BFU2 S12.G	1SNA116522R0700	10	45
	Orange	BFU2 S12.OR	1SNA103598R2000	10	45
	Blue	BFU2 S12.BL	1SNA126522R0100	10	45
	Black	BFU2 S12.BK	1SNA104077R0000	10	45
Standard body equipped with 6 screw-clamp terminals (DEFGHJ)	Grey	BFU2 S6.G	1SNA116523R0000	10	34
Body equipped with 12 screw-clamp terminals and opened spaces on both side to receive 1 or 2 plug-in connectors type HE14 (up to 22 points, not supplied) or 6 poles PCB connectors (see accessories section)	Grey	BFU2 S12.G.CP	1SNA116689R2700	10	42.8

Connection capacity		IEC	UL-CSA
1 conductor	Rigid: Solid/Stranded	0.5 ... 4 mm²	20-12 AWG
Per clamp	Flexible without ferrule	0.5 ... 2.5 mm²	20-14 AWG
	Flexible with non insulated ferrule	0.5 ... 2.5 mm²	20-14 AWG
	Flexible with insulated ferrule	0.5 ... 2.5 mm²	20-14 AWG
Quick-connect	Flexible	0.3 ... 2.5 mm²	22 ... 14 AWG
	Rated current of clamp	16 A	
	Rated Voltage	V AC	250 V
		V DC	300 V
	Protection	IP20	
Material specifications	Insulating material	Polyamide	
	Flammability	V0	
Ambient temperature (Min/max)	Service	-40°C to +100°C	
	Storage	-55°C to +110°C	

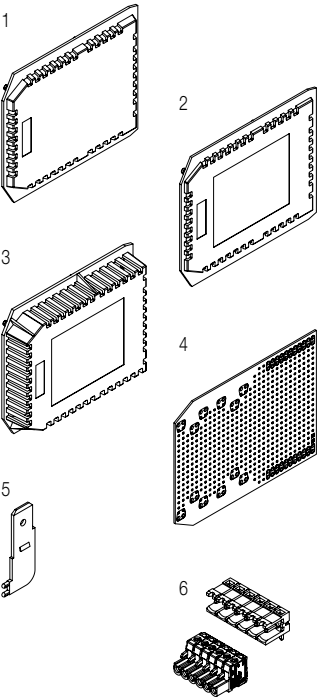
Rail		G32, TH 35-7.5, TH 35-15
Wire stripping length		7.5 mm 0.412 in
Tool		Flat screwdriver Ø 3.5 mm Ø 0.138 in
Torque		0.6 Nm ± 0.1 5.31 lb.in ± 0.885

All the main technical data provided are “manufacturer” values

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Component holder modules

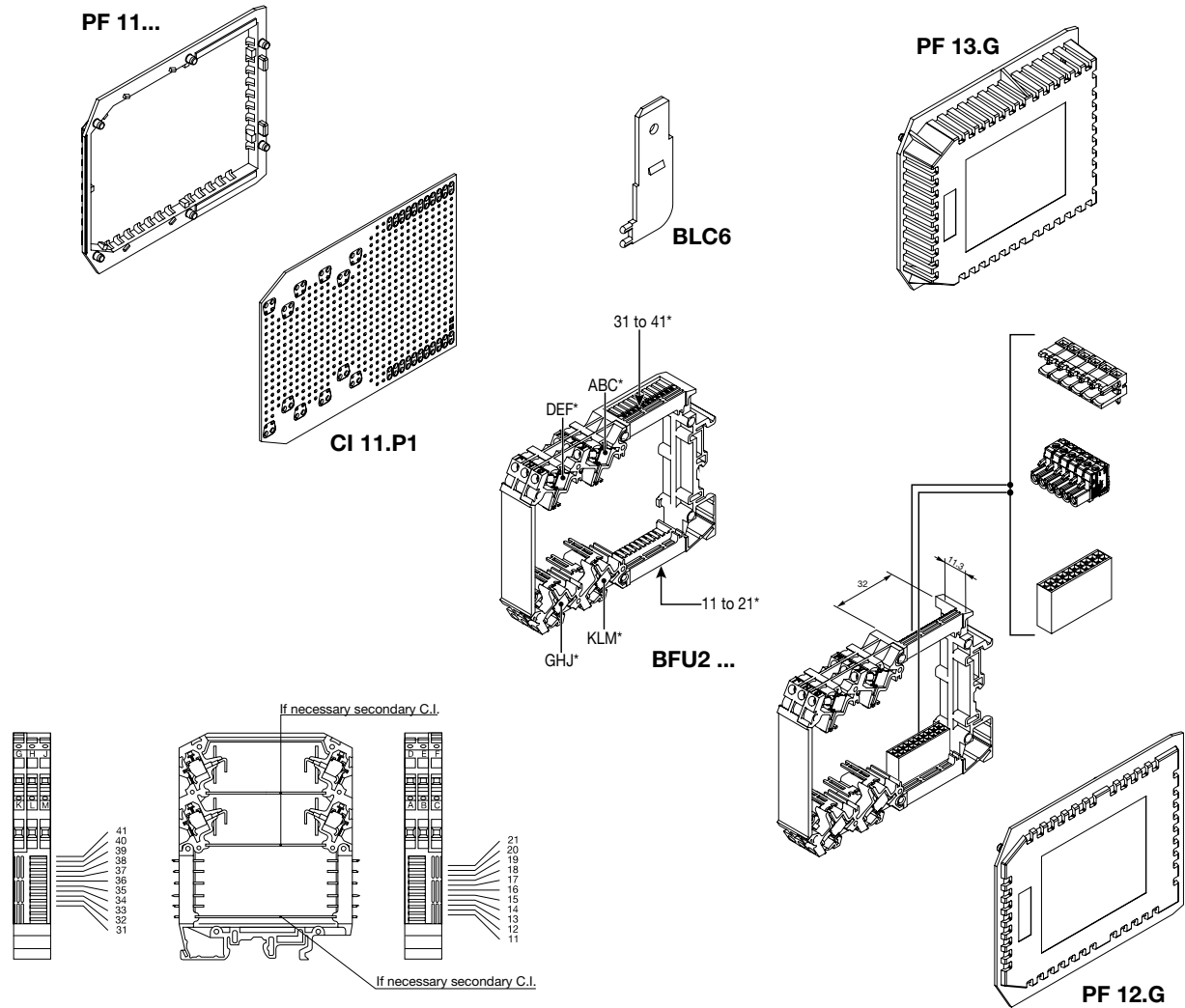
Series 11 000



Accessories

Description	Color	Type	Part Number	Pkg Qty	Weight (1 pce) g
1 Left end plate with airing holes. Thickness 3 mm 0.118 in	Grey	PF11.G	1SNA116519R1400	10	11
	Orange	PF11.OR	1SNA103595R1500	10	11
	Blue	PF11.BL	1SNA126519R1600	10	11
	Black	PF11.BK	1SNA103786R2400	10	11
2 Right end plate with airing holes. Thickness 3 mm 0.118 in	Grey	PF12.G	1SNA116520R1100	10	10
	Orange	PF12.OR	1SNA103596R1600	10	10
	Blue	PF12.BL	1SNA126520R1300	10	10
	Black	PF12.BK	1SNA103782R2000	10	10
3 Right end plate with airing holes. Thickness 15 mm 0.59 in	Grey	PF13.G	1SNA116718R2300	10	20
	Orange	PF13.OR	1SNA103762R0300	5	20
	Blue	PF13.BL	1SNA126718R2500	5	20
4 Prepunched printed circuit board		CI 11P1	1SNA175207R0700	10	10
5 Quick-connect tab series 250 6.3 x 0.8 mm		BLC6	1SNA174445R2400	10	1
6 6 pôles PCB connector & socket (2 max per module)	Socket	CPET/6H	1SNA094206R2100	40	2.1
	Connector	CPFT2/6	1SNA094306R2500	40	9.6

Mounting options



Series 11 000

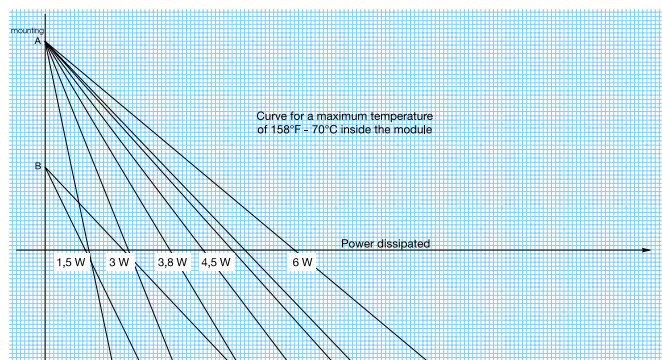
Component holder spacing is determined by required internal volume for component packaging.

*: Max. height of components

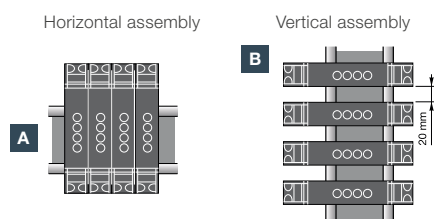


Thermal characteristics of modules

- For maximum reliability, the mounting method must be determined according to the power dissipated in the interface module, and the ambient temperature around the modules.
- Inversely, knowing the type of mounting, **A** or **B**, and the power dissipated, the curve (left) determines the maximum recommended ambient temperature.



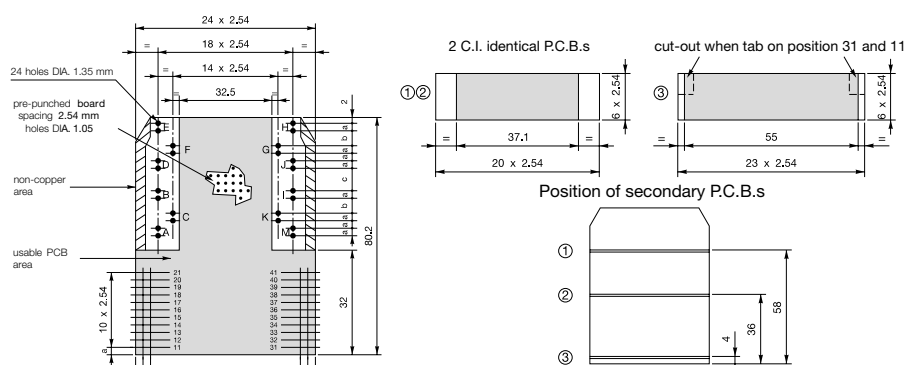
Maximum temperature near the modules



The characteristics shown on the left are given as a guide and may be modified without notice

Mechanical characteristics of prepunched circuit board

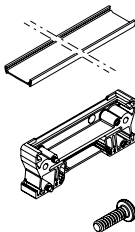
- Material: Epoxy resin UL94 V0
- Copper thickness: 35µm
- PCB thickness: 0.8 mm
- Prepunched with holes of 1.05 mm and 2.54 mm spacing.



Note: the secondary P.C.B.s are not kept in stock

Component holder modules

Series 20 000



Opened extruded modules series 20000

- Modular in width and in length (3 widths available)
- For PCB surface up to 250 cm²
- PCB length from 10.7 to 500 mm (thickness: 1.6 mm)
- Mounting on TH35 rail.

Ordering details

Description		Color	Type	Part Number	Pkg Qty	Weight (1 pce) g
Body SE... for PCB width:	50 mm 1.96 in	Grey	SE50	1SNA400751R1600	1	267
	71 mm 2.76 in		SE71	1SNA400809R0000	1	427
	100 mm 3.94 in		SE100	1SNA400808R0000	1	572
End plate & mounting foot AFSE... for PCB width:	50 mm 1.96 in	Grey	AFSE 50	1SNA400750R2100	10	2.34
	71 mm 2.76 in		AFSE71-6	1SNA400804R0000	20	4.8
			AFSE71-11	1SNA400805R0000	20	8.2
	100 mm 3.94 in		AFSE100-11	1SNA400806R0000	20	6.6
				1SNA400807R0000	20	11
Screw for foot			VTCBLZ 2.9x9.5	1SNA921013R0000	100	0.6

Main technical data

Connection capacity		IEC	UL-CSA
Material specifications	Insulating material	Polyamide	
	Flammability UL	V0	
	Flammability NF F 16 101	I2F2	
Ambient temperature (Min/max)	Service	-20°C to +80°C	-4 to +176°F
	Storage	20°C to +80°C	-4 to +176°F
	Installing	-5°C to +40°C	+23 to +104°F
IEC 60068-2-1			

Mounting instruction

Rail		TH 35-7.5 TH35-15
Tool		Posidrive screwdriver PZ1 Type
Torque		0.3 Nm ± 0.1 2.65 lb.in ± 0.885

All the main technical data provided are "manufacturer" values

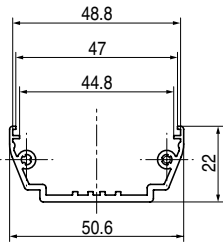
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CE	RoHS	UL																	

Component holder modules

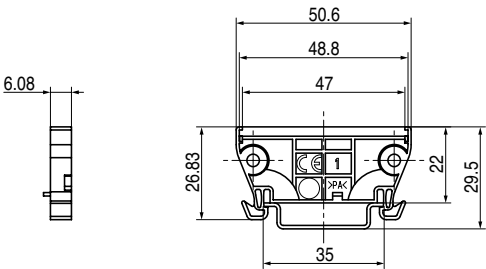
Series 20 000

Product dimensions

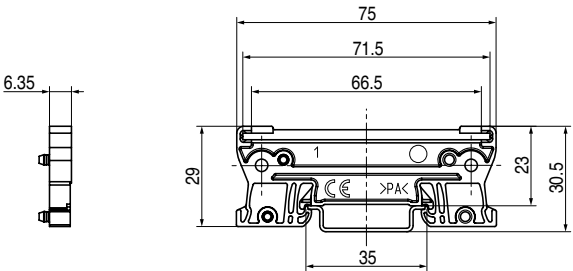
SE 50



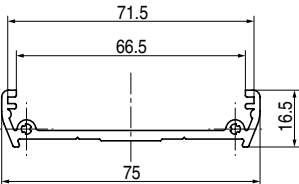
AFSE 50



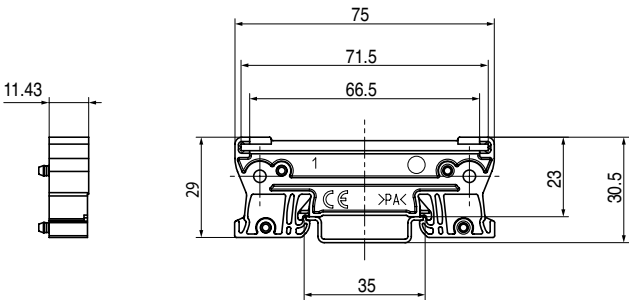
AFSE 71-6



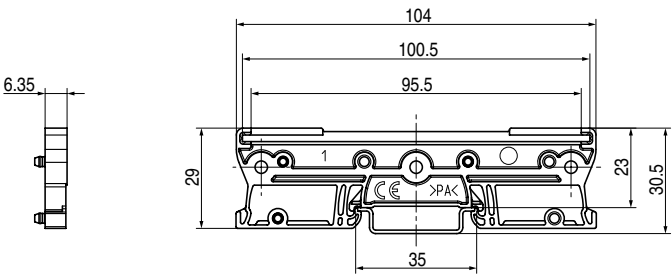
SE 71



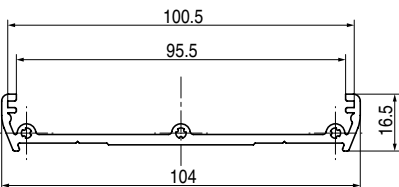
AFSE 71-11



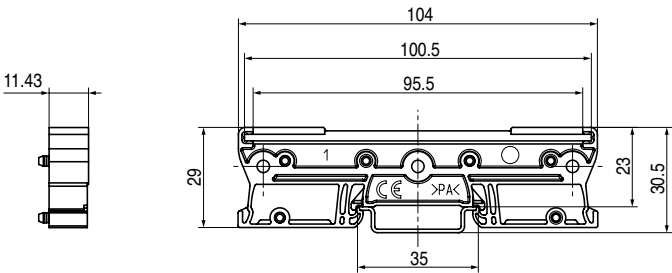
AFSE 100-6



SE 100



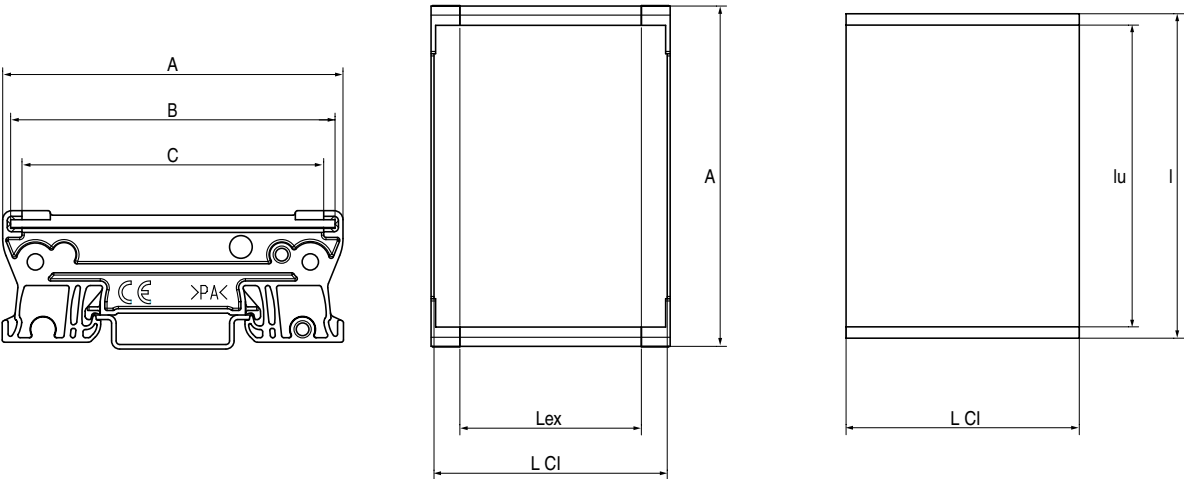
AFSE 100-11



Component holder modules

Series 20 000

Mounting instructions



Extruded rail length

Lex = L CI - 21.2 (0.4 mm theoretic clearance between P.C.B. and mounted support)

Rail length margin

L: + 0.5 .020" + 0.2 .008"

C(1): For component pins less than 3 mm.

C(2): For component pins longer than 3 mm

** P.C.B. length margin

L: 0 .000" + 0.2 -.008"

lu1: For component pins less than 3 mm.

lu2: For component pins longer than 3 mm.

Body Dimensions	SE 50		SE 71		SE 100	
	mm	inch	mm	inch	mm	inch
A (overhole width)	50	1.96	75	2.95	104	4.1
B (PCB width)	48.8	1.92	71	2.79	100	3.94
C (1)	N/A	N/A	66.5	2.62	95.5	3.76
C (2)	47	1.85	50	1.96	Consult us	
Lex	Lex = L CI - 9.8 mm (0.4 mm theoretic clearance between PCB and body)		Lex with AFSE71-6 = L CI - 11 mm (0.4 mm theoretic clearance between PCB and body) Lex with AFSE71-11 = L CI - 21.2 mm (0.4 mm theoretic clearance between PCB and body)		Lex with AFSE100-6 = L CI - 11 mm (0.4 mm theoretic clearance between PCB and body) Lex with AFSE100-11 = L CI - 21.2 mm (0.4 mm theoretic clearance between PCB and body)	

P.C.B. length margin

L: 0 + 0.1 / - 0.2 mm

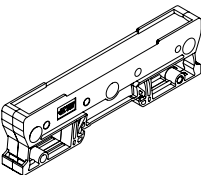
L: .000" + .004" / - .008"

PCB Dimensions	SE 50		SE 71		SE 100	
	mm	inch	mm	inch	mm	inch
L CI	10.7 mm (2 x AFSE50 clipped) >10.7 mm (2 x2 x AFSE50 + 1 SE50 body)		10.7 mm (2 x AFSE71-6 clipped) 15.78 mm (1 x AFSE71-6 + 1 x AFSE71-11 clipped) 20.86 mm (2 x AFSE71-11 clipped) >20.86 mm (2 x AFSE71-6 + SE71 body)		10.7 mm (2 x AFSE100-6 clipped) 15.78 mm (1 x AFSE100-6 + 1 x AFSE100-11 clipped) 20.86 mm (2 x AFSE100-11 clipped) >20.86 mm (2 x AFSE100-6 + SE100 body)	
l	48.8	1.92	71	2.79	100	3.94
lu1	44.8	1.76	66	2.6	95	3.74
lu2	Consult us		Consult us		Consult us	

Examples of configurations (SE100)

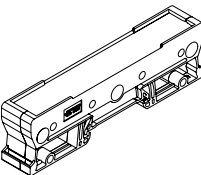
L = 10.7 mm

2 x AFSE100-6 clipped



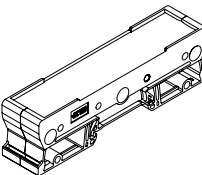
L = 15.78 mm

1 x AFSE100-6 +
1 x AFSE100-11 clipped



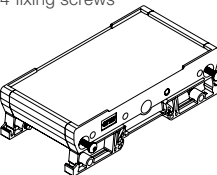
L = 20.86 mm

2 x AFSE100-11 clipped



L > 20.86 mm

2 x AFSE100-6
1 x SE 100 to required length
4 fixing screws



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