

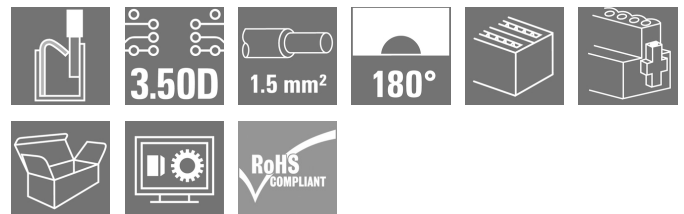
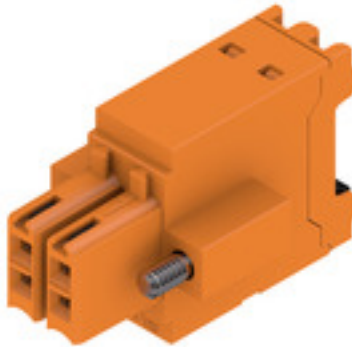
B2CF 3.50/04/180F SN OR BX**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Product image**Two-row female plug with PUSH IN spring connection**

- Simply insert the prepared wire - and you're done
- Intuitive to use because
- the wire-entry area and handling area are clearly separated
- Integrated push-buttons for opening the terminal point
- High component density because of low heights
- Optional: locking and releasing require no tools when using Weidmüller's release latch (LR) or release lever (LH)

General ordering data

Version	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 4, 180°, PUSH IN with push button, Clamping range, max. : 1.5 mm², Box
Order No.	1277650000
Type	B2CF 3.50/04/180F SN OR BX
GTIN (EAN)	4050118068436
Qty.	90 pc(s).
Product data	IEC: 320 V / 13.4 A / 0.14 - 1.5 mm² UL: 300 V / 9.5 A / AWG 30 - AWG 16
Packaging	Box

Creation date May 23, 2025 6:04:31 AM CEST

Catalogue status 10.05.2025 / We reserve the right to make technical changes.

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Technical data**Dimensions and weights**

Depth	25.25 mm	Depth (inches)	0.994 inch
Height	15.2 mm	Height (inches)	0.598 inch
Width	14 mm	Width (inches)	0.551 inch
Net weight	3.132 g		

System Parameters

Product family	OMNIMATE Signal - series B2C/S2C 3.50 - 2-row		
Type of connection	Field connection		
Wire connection method	PUSH IN with push button		
Pitch in mm (P)	3.5 mm		
Pitch in inches (P)	0.138 "		
Conductor outlet direction	180°		
Number of poles	4		
L1 in mm	3.5 mm		
L1 in inches	0.138 "		
Number of rows	1		
Pin series quantity	2		
Rated cross-section	15 mm ²		
Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch		
Touch-safe protection acc. to DIN VDE 0470	IP20 plugged		
Protection degree	IP20, when fully mounted		
Can be coded	Yes		
Stripping length	10 mm		
Screwdriver blade	0.4 x 2.5		
Screwdriver blade standard	DIN 5264		
Plugging cycles	25		
Plugging force/pole, max.	5 N		
Pulling force/pole, max.	5 N		
Tightening torque	Torque type	Screw flange	
	Usage information	Tightening torque	min. 0.15 Nm max. 0.2 Nm

Material data

Insulating material	PA 66 GF 30	Colour	orange
Colour chart (similar)	RAL 2000	Insulating material group	II
Comparative Tracking Index (CTI)	≥ 600	Insulation strength	≥ 10 ⁸ Ω
UL 94 flammability rating	V-0	Contact material	Copper alloy
Contact surface	tinned	Layer structure of plug contact	2...5 µm Sn hot-dip tinned
Storage temperature, min.	-40 °C	Storage temperature, max.	70 °C
Operating temperature, min.	-50 °C	Operating temperature, max.	120 °C
Temperature range, installation, min.	-40 °C	Temperature range, installation, max.	120 °C

Conductors suitable for connection

Clamping range, min.	0.14 mm ²
Clamping range, max.	1.5 mm ²
Wire connection cross section AWG, min.	AWG 30
Wire connection cross section AWG, max.	AWG 16
Solid, min. H05(07) V-U	0.14 mm ²

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Technical data

Solid, max. H05(07) V-U	1.5 mm ²		
Flexible, min. H05(07) V-K	0.14 mm ²		
Flexible, max. H05(07) V-K	1.5 mm ²		
w. plastic collar ferrule, DIN 46228 pt 4, 0.14 mm ² min.			
w. plastic collar ferrule, DIN 46228 pt 4, 1 mm ² max.			
w. wire end ferrule, DIN 46228 pt 1, min.	0.14 mm ²		
w. wire end ferrule, DIN 46228 pt 1, max.	1.5 mm ²		
Clampable conductor	wire end ferrule	Stripping length	nominal 10 mm
		Recommended wire-end ferrule	H0.14/12 GR SV
	wire end ferrule	Stripping length	nominal 10 mm
		Recommended wire-end ferrule	H0.25/12 HBL SV
	wire end ferrule	Stripping length	nominal 10 mm
		Recommended wire-end ferrule	H0.34/12 TK SV
	wire end ferrule	Stripping length	nominal 12 mm
		Recommended wire-end ferrule	H0.5/16 OR SV
		Stripping length	nominal 10 mm
		Recommended wire-end ferrule	H0.5/10
	wire end ferrule	Stripping length	nominal 12 mm
		Recommended wire-end ferrule	H0.75/16 W SV
		Stripping length	nominal 10 mm
		Recommended wire-end ferrule	H0.75/10
	wire end ferrule	Stripping length	nominal 12 mm
		Recommended wire-end ferrule	H1.0/16 GE SV
		Stripping length	nominal 10 mm
		Recommended wire-end ferrule	H1.0/10
	wire end ferrule	Stripping length	nominal 10 mm
		Recommended wire-end ferrule	H1.5/10

Reference text The outside diameter of the plastic collar should not be larger than the pitch (P). Length of ferrules is to be chosen depending on the product and the rated voltage.

Rated data acc. to IEC

tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. number of poles (Tu=20°C)	13.4 A
Rated current, max. number of poles (Tu=20°C)	10 A	Rated current, min. number of poles (Tu=40°C)	12 A
Rated current, max. number of poles (Tu=40°C)	9 A	Rated voltage for surge voltage class / pollution degree II/2	320 V
Rated voltage for surge voltage class / pollution degree III/2	160 V	Rated voltage for surge voltage class / pollution degree III/3	160 V
Rated impulse voltage for surge voltage class/ pollution degree II/2	2.5 kV	Rated impulse voltage for surge voltage class/ pollution degree III/2	2.5 kV
Rated impulse voltage for surge voltage class/ contamination degree III/3	2.5 kV	Short-time withstand current resistance	3 x 1s with 80 A

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Technical data**Rated data acc. to CSA**

Institute (CSA)



Certificate No. (CSA)

200039-1121690

Rated voltage (Use group B / CSA)	300 V
Rated voltage (Use group D / CSA)	300 V
Rated current (Use group C / CSA)	9.5 A
Wire cross-section, AWG, min.	AWG 30
Reference to approval values	Specifications are maximum values, details - see approval certificate.

Rated voltage (Use group C / CSA)	50 V
Rated current (Use group B / CSA)	9.5 A
Rated current (Use group D / CSA)	9.5 A
Wire cross-section, AWG, max.	AWG 16

Rated data acc. to UL 1059

Institute (cURus)



Certificate No. (cURus)

E60693

Rated voltage (Use group B / UL 1059)	300 V
Rated voltage (Use group D / UL 1059)	300 V
Rated current (Use group C / UL 1059)	9.5 A
Wire cross-section, AWG, min.	AWG 30
Reference to approval values	Specifications are maximum values, details - see approval certificate.

Rated voltage (Use group C / UL 1059)	50 V
Rated current (Use group B / UL 1059)	9.5 A
Rated current (Use group D / UL 1059)	9.5 A
Wire cross-section, AWG, max.	AWG 16

Packing

Packaging	Box	VPE length	347 mm
VPE width	135 mm	VPE height	31 mm

Type tests

Test: Durability of markings	Standard	IEC 61984 section 6.2 and 7.3.2 / 10.11 taking pattern from IEC 60068-2-70 / 12.95
	Test	mark of origin, type identification, pitch, type of material, date clock, approval marking UL, approval marking cULus
	Evaluation	available
	Test	durability
	Evaluation	passed
Test: Misengagement (Non-interchangeability)	Standard	IEC 61984 section 6.3 and 6.9.1 / 10.11, IEC 60512-13-5 / 02.06
	Test	180° turned without coding elements
	Evaluation	passed
	Test	180° turned with coding elements
	Evaluation	passed
	Test	visual examination
	Evaluation	passed

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Technical data

Test: Clampable cross section	Standard	IEC 60999-1 section 7 and 9.1 / 11.99, IEC 60947-1 section 8.2.4.5.1 / 03.11
	Conductor type	Type of conductor and solid 0.14 mm ² conductor cross-section
		Type of conductor and stranded 0.14 mm ² conductor cross-section
		Type of conductor and solid 1.5 mm ² conductor cross-section
		Type of conductor and stranded 1.5 mm ² conductor cross-section
		Type of conductor and AWG 26/1 conductor cross-section
		Type of conductor and AWG 26/19 conductor cross-section
		Type of conductor and AWG 16/1 conductor cross-section
		Type of conductor and AWG 16/19 conductor cross-section
	Evaluation	passed
Test for damage to and accidental loosening of conductors	Standard	IEC 60999-1 section 9.4 / 11.99
	Requirement	0.2 kg
	Conductor type	Type of conductor and AWG 26/1 conductor cross-section
		Type of conductor and AWG 26/19 conductor cross-section
	Evaluation	passed
	Requirement	0.3 kg
	Conductor type	Type of conductor and H05V-U0.75 conductor cross-section
		Type of conductor and H05V-K0.75 conductor cross-section
	Evaluation	passed
	Requirement	0.4 kg
	Conductor type	Type of conductor and H07V-U1.5 conductor cross-section
		Type of conductor and H07V-K1.5 conductor cross-section
		Type of conductor and AWG 16/1 conductor cross-section
		Type of conductor and AWG 16/19 conductor cross-section
	Evaluation	passed

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Technical data

Pull-out test	Standard	IEC 60999-1 section 9.5 / 11.99
	Requirement	≥10 N
	Conductor type	Type of conductor and AWG 26/1 conductor cross-section
		Type of conductor and AWG 26/19 conductor cross-section
	Evaluation	passed
	Requirement	≥20 N
	Conductor type	Type of conductor and H05V-U0.75 conductor cross-section
		Type of conductor and H05V-K0.75 conductor cross-section
	Evaluation	passed
	Requirement	≥40 N
	Conductor type	Type of conductor and H07V-U1.5 conductor cross-section
		Type of conductor and H07V-K1.5 conductor cross-section
		Type of conductor and AWG 16/1 conductor cross-section
		Type of conductor and AWG 16/19 conductor cross-section
	Evaluation	passed

Classifications

ETIM 6.0	EC002638	ETIM 7.0	EC002638
ETIM 8.0	EC002638	ETIM 9.0	EC002638
ETIM 10.0	EC002638	ECLASS 9.0	27-44-03-09
ECLASS 9.1	27-44-03-09	ECLASS 10.0	27-44-03-09
ECLASS 11.0	27-46-02-02	ECLASS 12.0	27-46-02-02
ECLASS 13.0	27-46-02-02	ECLASS 14.0	27-46-02-02
ECLASS 15.0	27-46-02-02		

Cradle to gate

0.045 kg CO₂eq.**Environmental Product Compliance**

RoHS Compliance Status	Compliant without exemption
REACH SVHC	No SVHC above 0.1 wt%
Product Carbon Footprint	de.myview.objectmodel.impl.BlockImpl@10c0064d

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www.weidmueller.com**Technical data****Important note**

IPC conformity	Conformity: The products are developed, manufactured and delivered according international recognized standards and norms and comply with the assured properties in the data sheet resp. fulfill decorative properties in accordance with IPC-A-610 "Class 2". Further claims on the products can be evaluated on request.
Notes	• Additional variants on request • Gold-plated contact surfaces on request • Rated current related to rated cross-section & min. No. of poles. • Crimp shape A for wire-end ferrules with crimping tools PZ 1,5 (order no. 9005990000) or PZ 6/5 (order no. 9011460000) for larger wire cross-sections recommended. • P on drawing = pitch • Rated data refer only to the component itself. Clearance and creepage distances to other components are to be designed in accordance with the relevant application standards. • Max. outer diameter of the conductor 2.6 mm • In accordance with IEC 61984, OMNIMATE-connectors are connectors without breaking capacity (COC). During designated use, connectors are not allowed to be engaged or disengaged when live or under load • Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months

Approvals

Approvals



Approvals MAMID	https://mdcop.weidmueller.com/mediadelivery/rendition/900_319226/-T1z1mm-S800/ https://mdcop.weidmueller.com/mediadelivery/rendition/900_319230/-T1z1mm-S800/
ROHS	Conform
UL File Number Search	UL Website
Certificate No. (cURus)	E60693

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www.weidmueller.com**Technical data****Downloads**Approval/Certificate/Document of Con-
formity[Declaration of the Manufacturer](#)

Engineering Data

[CAD data – STEP](#)

Product Change Notification

[20210721 Technical change Redesign B2CF 3.50](#)[20210721 Technische Änderung Redesign zu B2CF 3.50](#)[20220530 Change of packaging OMNIMATE® Signal B2CF 3.50](#)[20220530 Verpackungsänderung OMNIMATE® Signal B2CF 3.50](#)

User Documentation

[Operating instruction](#)

Catalogues

[Catalogues in PDF-format](#)

Brochures

[FL DRIVES EN](#)[MB DEVICE MANUF. EN](#)[FL DRIVES DE](#)[FL BUILDING SAFETY EN](#)[FL APPL LED LIGHTING EN](#)[FL INDUSTR.CONTROLS EN](#)[FL MACHINE SAFETY EN](#)[FL HEATING ELECTR EN](#)[FL APPL INVERTER EN](#)[FL_BASE_STATION_EN](#)[FL ELEVATOR EN](#)[FL POWER SUPPLY EN](#)[FL 72H SAMPLE SER EN](#)[PO OMNIMATE EN](#)[PO OMNIMATE EN](#)

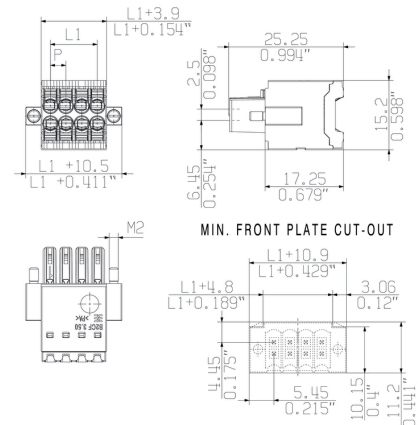
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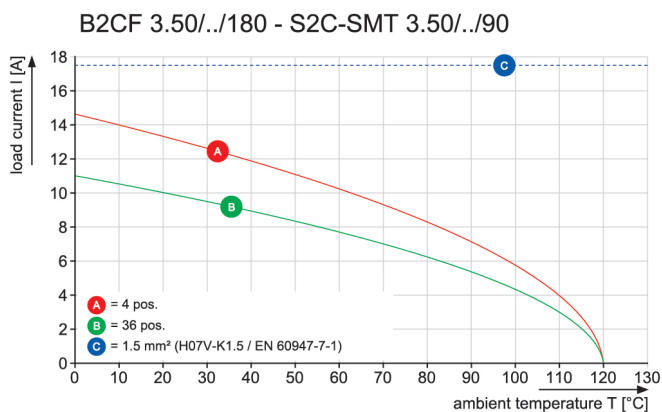
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Drawings

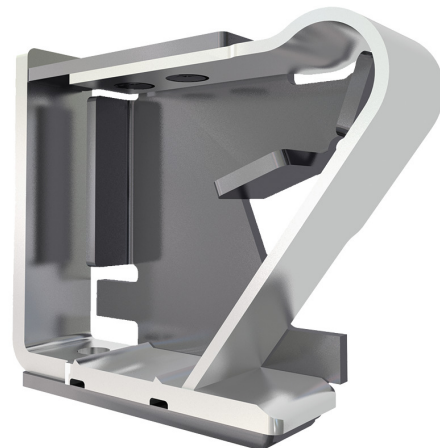
Dimensional drawing



Graph

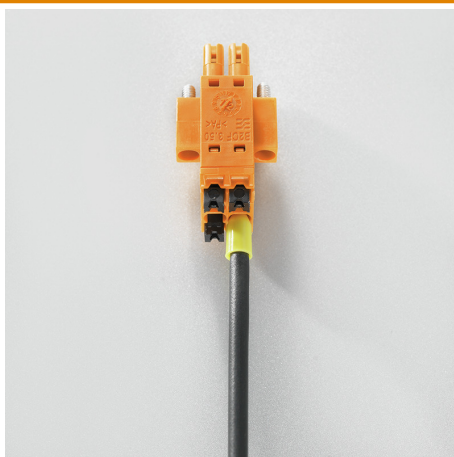


Product benefits



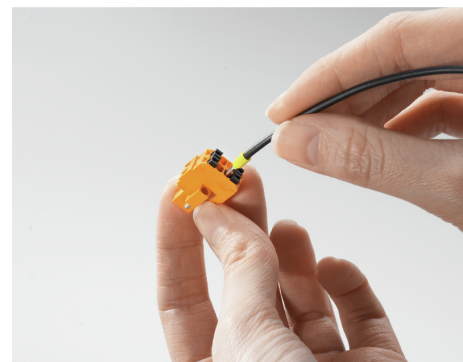
Solid PUSH IN contact
 Safe and durable

Product benefits



Large connection cross-section
 Up to 1.5 mm possible with ease

Product benefits



Fast PUSH IN connection
 Tool-free and touch-safe

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www.weidmueller.com**Accessories****Coding elements****Only connects what is supposed to be connected:
the right connection at the right place.**

Coding elements and locking devices clearly assign connecting elements during the manufacturing process and operation

The coding elements and locking devices are inserted prior to assembly or during the cable assembly phase. The Weidmüller alternative: configure online using the variant configurator to precode prior to delivery.

Incorrect assembly on the circuit board and incorrect plugging of connecting elements is no longer possible. The advantage: no troubleshooting during manufacture and no operational errors by the user.

General ordering data

Type	B2L/S2L 3.50 KO BK BX	Version	Product data	Packaging
Order No.	1849740000	PCB plug-in connector, Accessories, Coding element, black, Number		Box
GTIN (EAN)	4032248378203	of poles: 1		
Qty.	100 pc(s).			
Type	B2L/S2L 3.50 KO OR BX	Version	Product data	Packaging
Order No.	1849730000	PCB plug-in connector, Accessories, Coding element, orange, Number		Box
GTIN (EAN)	4032248378197	of poles: 1		
Qty.	100 pc(s).			

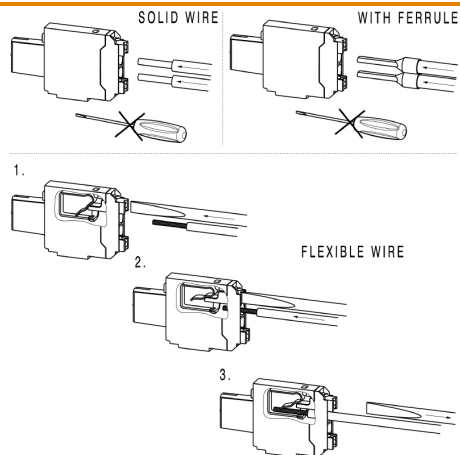
B2CF 3.50/04/180F SN OR BX

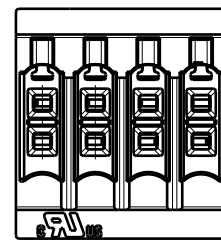
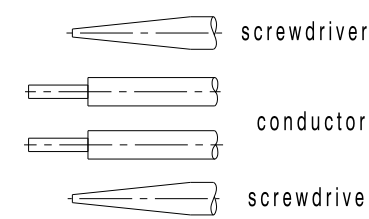
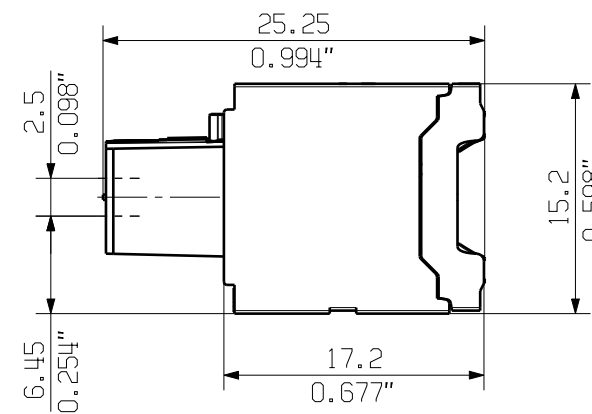
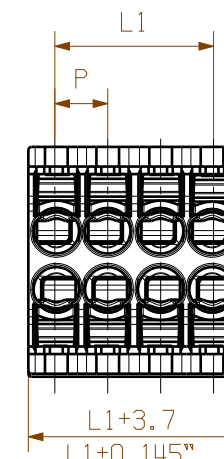
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Drawings

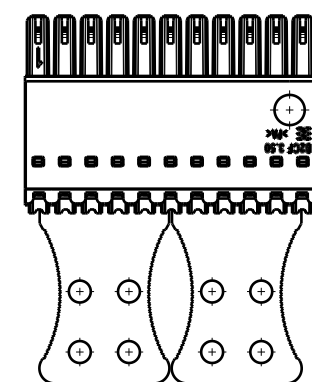
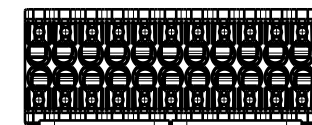
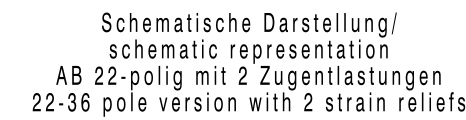
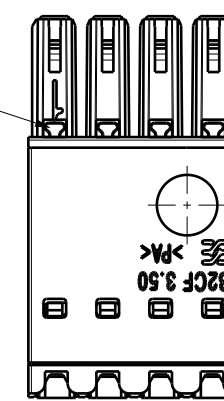
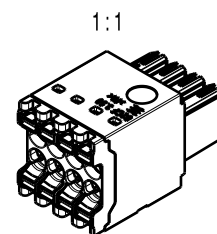
Example of use



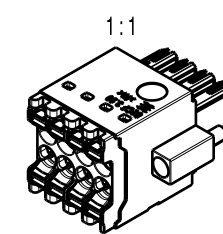
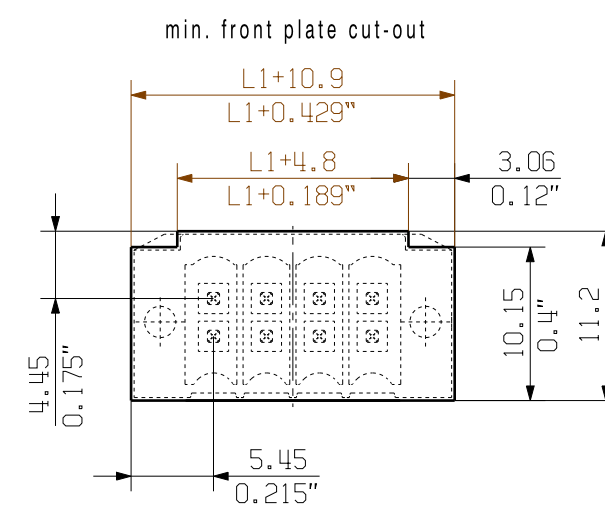
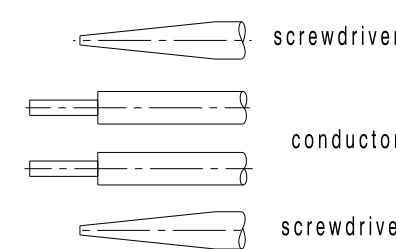
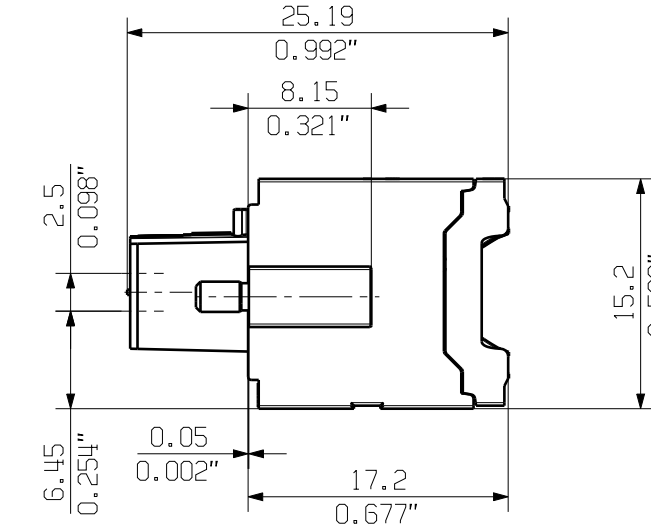
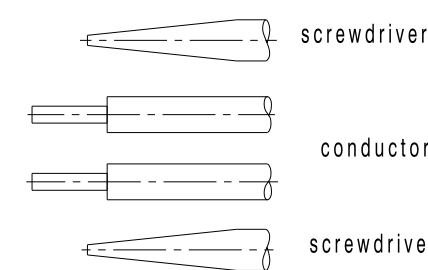
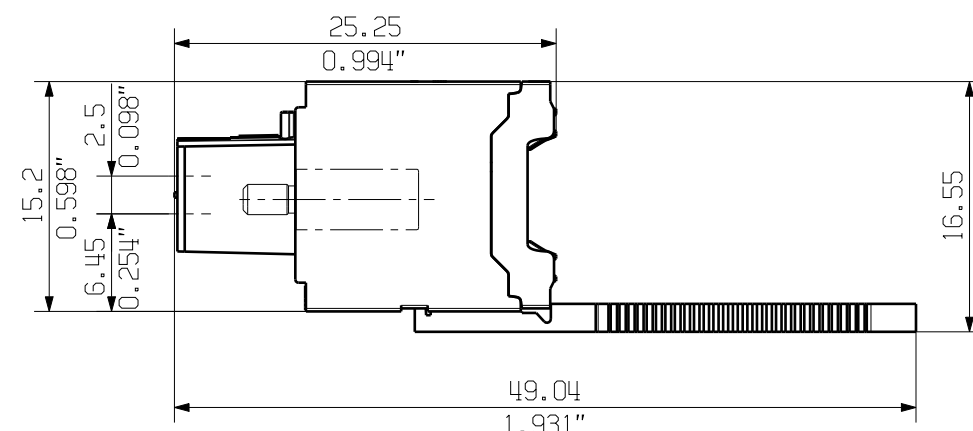
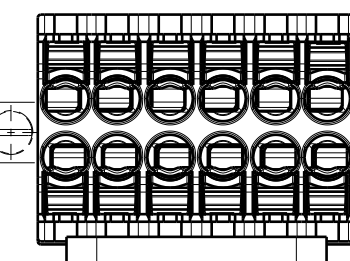


	22																			
	20	X	X																X	X
	18	X	X															X	X	
	16	X	X															X	X	
	14	X	X															X	X	
	12	X	X								X	X								
	10	X	X					X	X											
	8	X	X		X	X														
	6	X	X	X	X															
	4	X	X																	
n	POLZAHL POLES	RASTHAKEN																		
		SNAP-FITS																		

ACHTUNG: AB 22-polig ohne Rasthaken
ATTENTION: housing with 22-36 poles without snap-fits

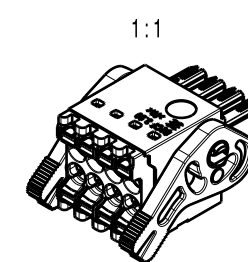
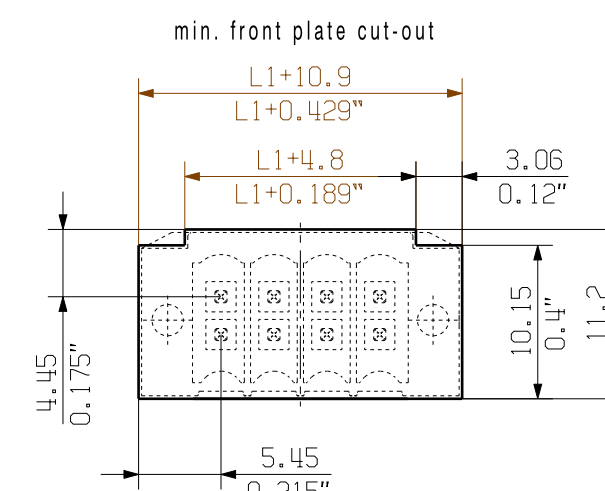
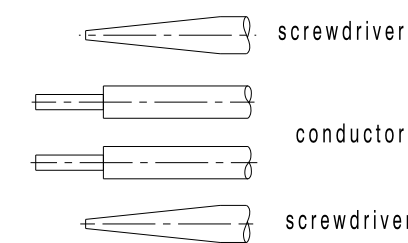
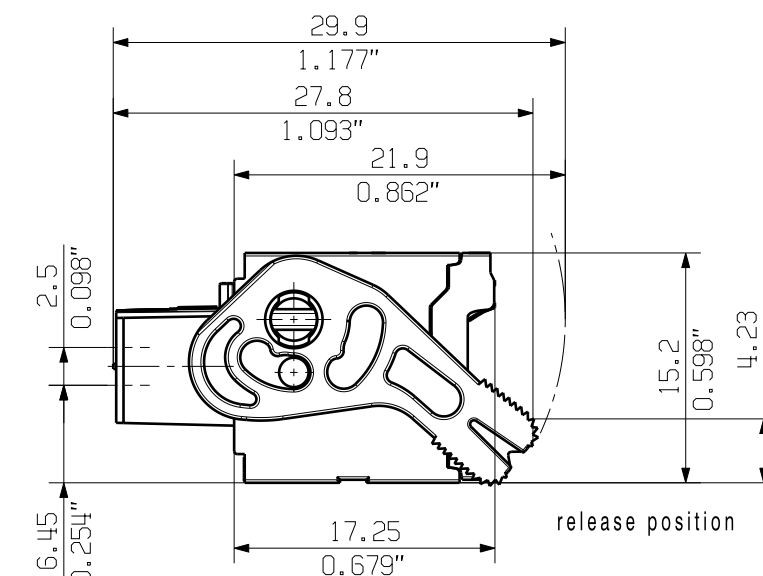


auch andere Flansche mit Zugentlastung möglich/ (F/LH/LR
other flange types with strain relief possible

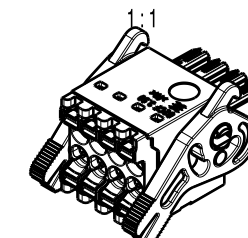
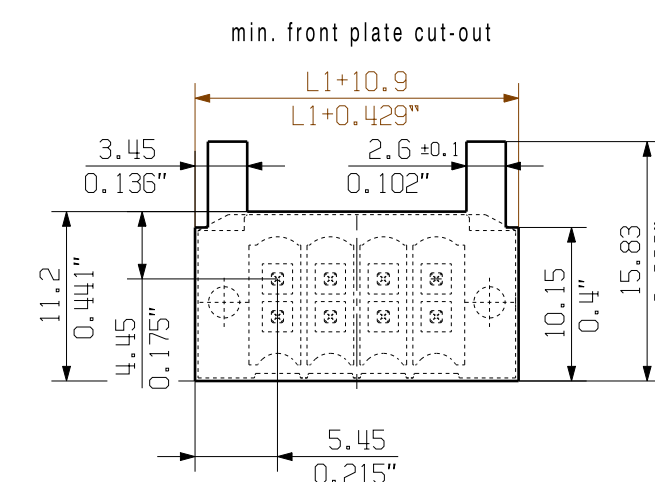
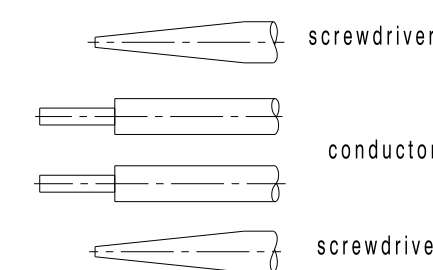
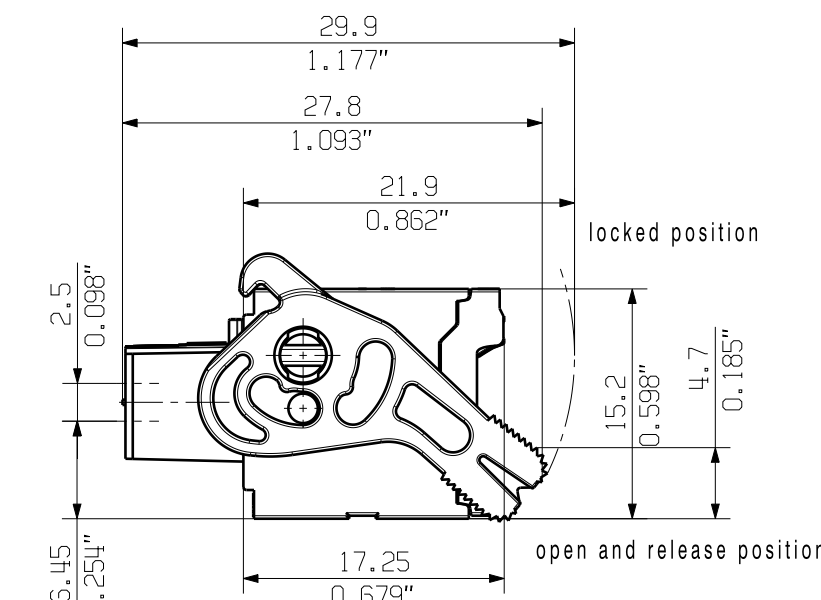


Technical drawing of a 2x2 grid of circular features. The drawing includes the following dimensions:

- Vertical dimension on the left: 4.7 and 0.185"
- Horizontal dimension at the bottom: L1+3.9, L1+0.153", L1+10.4, and L1+0.409"



4.7
0.185
L1+3.9
L1+0.153
L1+10.4
L1+0.409



Weidmüller connectors are tested to the DIN VDE 0627 standard, and are valid for its field of application. Provided that the connectors are used to the intended purpose, all requirements with respect to the occurring of electrical, mechanical, thermic and corrosive stress will be satisfied.

46	76.8	3.033
44	73.3	2.895
42	69.8	2.757
40	66.3	2.619
38	62.8	2.48
36	59.5	2.343
34	56.0	2.205
32	52.5	2.067
30	49.0	1.929
28	45.5	1.791
26	42.0	1.654
24	38.5	1.516
22	35.0	1.378
20	31.5	1.240
18	28.0	1.102
16	24.5	0.965
14	21.0	0.827
12	17.5	0.689
10	14.0	0.551
8	10.5	0.413
6	7.0	0.276
4	3.50	0.138
n	L1 [mm]	L1 [inchi]

General Tolerances: ☐ WN700144-W... ☐ WN 212010 ☒ ISO 2768-mK		Tolerances ISO 8015	
Changes: EC00009088		73450	
Mat. No. (SAP) 1277290000		Drawing no. 6	
Drawings Assembly		Scale: 2:1 Sheet 3 / 7	
Drawn	Hells, Maria	 B2CF 3.50...180 FEMALE PLUG BUCHSENSTECKER	
Responsible	Aporius, Stefan		
Approved	Lang, Thomas		
16.03.2023			