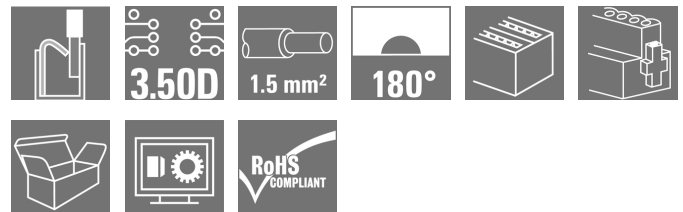


**OMNIMATE Signal - series B2C/S2C 3.50 - 2-row
B2CF 3.50/20/180F SN BK BX**

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 16
 D-32758 Detmold
 Germany
 Fon: +49 5231 14-0
 Fax: +49 5231 14-292083
 www.weidmueller.com

Product image


Similar to illustration

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

Type	B2CF 3.50/20/180F SN BK BX
Order No.	1277940000
Version	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 20, 180°, PUSH IN, Tension-clamp connection, Clamping range, max.: 1.5 mm², Box
GTIN (EAN)	4050118068900
Qty.	42 pc(s).
Product data	IEC: 320 V / 13.4 A / 0.14 - 1.5 mm² UL: 300 V / 9.5 A / AWG 26 - AWG 16
Packaging	Box

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Technical data

Dimensions and weights

Width	42 mm	Width (inches)	1.654 inch
Height	15.2 mm	Height (inches)	0.598 inch
Depth	26.25 mm	Depth (inches)	1.033 inch
Net weight	13.556 g		

system parameters

Product family	OMNIMATE Signal - series B2C/S2C 3.50 - 2-row	Type of connection	Field connection
Wire connection method	PUSH IN, Tension-clamp connection	Pitch in mm (P)	3.5 mm
Pitch in inches (P)	0.138 inch	Conductor outlet direction	180°
No. of poles	20	L1 in mm	31.5 mm
L1 in inches	1.24 inch	Number of rows	1
Pin series quantity	2	Rated cross-section	1.5 mm ²
Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch	Touch-safe protection acc. to DIN VDE 0470	IP 20
Can be coded	Yes	Stripping length	10 mm
Tightening torque for screw flange, min.	0.2 Nm	Tightening torque for screw flange, max.	0.25 Nm
Actuating force actuating element, max.	40 N	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

Material data

Insulating material	PA 66 GF 30	Colour	black
Colour of operational elements	orange	Material of operational elements	PA 66/6
Colour chart (similar)	RAL 9011	Insulating material group	II
CTI	≥ 600	Insulation strength	≥ 10 ⁸ Ω
UL 94 flammability rating	V-0	GWFI	960 °C
Contact material	Copper alloy	Contact surface	tinned
Layer structure of plug contact	2-5 µm Sn hot-dip tinned	Storage temperature, min.	-25 °C
Storage temperature, max.	55 °C	Max. relative humidity during storage	80 %
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
Solid, min. H05(07) V-U	0.14 mm ²
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, 1.5 mm ² max.	

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Technical data

Clampable conductor	Cross-section for conductor connection	Type	fine-wired	
		nominal	0.5 mm ²	
	AEH	Stripping length	nominal	12 mm
		Stripping length	nominal	10 mm
	Cross-section for conductor connection	Type	fine-wired	
		nominal	0.75 mm ²	
	AEH	Stripping length	nominal	12 mm
		Stripping length	nominal	10 mm
	Cross-section for conductor connection	Type	fine-wired	
		nominal	1 mm ²	
	AEH	Stripping length	nominal	12 mm
		Stripping length	nominal	10 mm
Reference text	The outside diameter of the plastic collar should not be larger than the pitch (P).			
	Max. clamping range			
		1.5 mm ²		

Rated data acc. to IEC

tested acc. to standard	IEC 60664-1, IEC 61984		Rated current, min. no. of poles (Tu=20°C)	13.4 A
Rated current, max. no. of poles (Tu=20°C)	10 A		Rated current, min. no. of poles (Tu=40°C)	12 A
Rated current, max. no. 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

Rated data acc. to CSA

Institute (CSA)			Certificate No. (CSA)	200039-1121690
Rated voltage (Use group B / CSA)	300 V		Rated voltage (Use group C / CSA)	50 V
Rated voltage (Use group D / CSA)	300 V		Rated current (Use group B / CSA)	9.5 A
Rated current (Use group C / CSA)	9.5 A		Rated current (Use group D / CSA)	9.5 A
Wire cross-section, AWG, min.	AWG 26		Wire cross-section, AWG, max.	AWG 16
Reference to approval values	Specifications are maximum values, details - see approval certificate.			

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Technical data
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 26

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	35 mm
VPE width	135 mm	VPE height	351 mm

Classifications

ETIM 4.0	EC002637	ETIM 5.0	EC002637
ETIM 6.0	EC002638	eClass 6.2	27-26-07-04
eClass 7.1	27-44-04-02	eClass 8.1	27-44-04-02
eClass 9.0	27-44-03-09	eClass 9.1	27-44-03-09

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Technical data

Notes

Notes

- Additional colours 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

Wire-end ferrule w/plastic collar DIN 46228/4 or Weidmüller colour code

- 1.00mm² [H1.0/18D] mtl. ferrule leng. 12mm, stripping leng. 15mm
- 0.75mm² [H0.75/18D] mtl. ferrule leng. 12mm, stripping leng. 14mm
- 0.50mm² [H0.5/16D] mtl. ferrule leng. 10mm, stripping leng. 12mm
- 0.34mm² [H0.34/12] mtl. ferrule leng. 8mm, stripping leng. 10mm
- 0.25mm² [H0.25/12] mtl. ferrule leng. 8mm, stripping leng. 10mm
- 0.14mm² [H0.14/12] mtl. ferrule leng. 8mm, stripping leng. 10mm

Wire-end ferrule w/o plastic collar acc. to DIN 46228/1

- 1.50mm² [H1.5/10] mtl. ferrule leng. 10mm, stripping leng. 10mm

Wire-end ferrule w/plastic collar DIN 46228/4 and 2 connec. cables

- 2 x 0.20mm² [H0.5/16] mtl. ferrule leng. 10mm, stripping leng. 12mm
- 2 x 0.34mm² [H1.0/18] mtl. ferrule leng. 12mm, stripping leng. 15mm

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.

Approvals

Approvals



ROHS

Conform

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Downloads

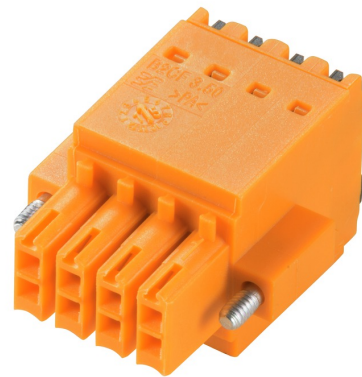
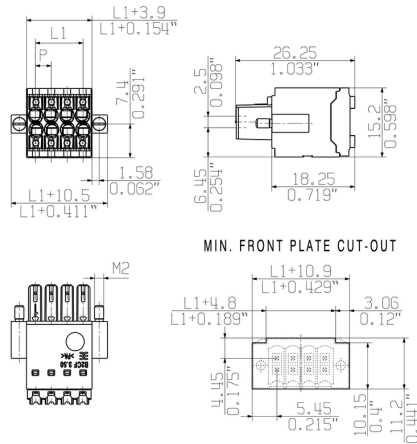
Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
Brochure/Catalogue	FL DRIVES EN MB DEVICE MANUF. EN FL DRIVES DE CAT 2 PORTFOLIOGUIDE EN FL BUILDING SAFETY EN FL APPL LED LIGHTING EN FL INDUSTR.CONTROLS EN FL MACHINE SAFETY EN FL HEATING ELECTR EN FL APPL INVERTER EN FL BASE STATION EN FL ELEVATOR EN FL POWER SUPPLY EN FL 72H SAMPLE SER EN PO OMNIMATE EN
Engineering Data	EPLAN, WSCAD
Engineering Data	STEP
User Documentation	Operating instruction
White Paper wire connection	Download Whitepaper

OMNIMATE Signal - series B2C/S2C 3.50 - 2-row B2CF 3.50/20/180F SN BK BX

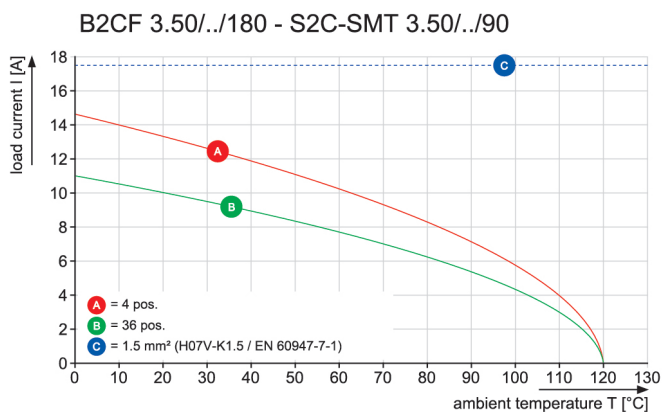
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Drawings

Dimensional drawing



Graph



Product benefits



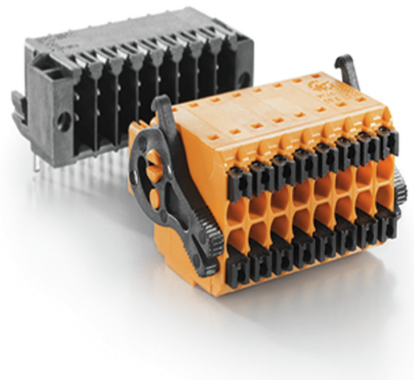
Solid PUSH IN contact
Safe and durable

Product benefits



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

Product benefits



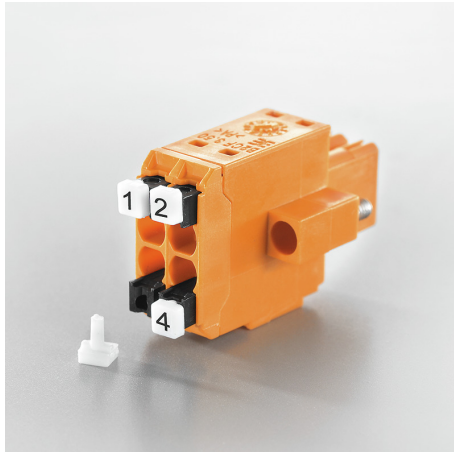
Fast PUSH IN connection
Tool-free and touch-safe

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Drawings

Product benefits



Clear marking
Unique designation

Example of use

