

## B2CF 3.50/12/180 SN TYL BX PRT

Weidmüller Interfaces GmbH & Co. KG

Postfach 3030

32760 Detmold

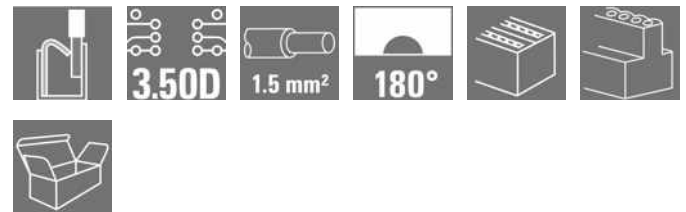
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info@weidmueller.com

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

Version	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 12, 180°, PUSH IN with actuator, Tension-clamp connection, Clamping range, max. : 1.5 mm², Box
Order No.	<a href="#">2443180000</a>
Type	B2CF 3.50/12/180 SN TYL BX PRT
GTIN (EAN)	4050118456967
Qty.	84 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

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**Technical data****Dimensions and weights**

Depth	26.25 mm	Depth (inches)	1.033 inch
Height	15.2 mm	Height (inches)	0.598 inch
Width	21 mm	Width (inches)	0.827 inch
Net weight	7.898 g		

**Temperatures**

Operating temperature, min.	-50 °C	Operating temperature, max.	120 °C
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**System Parameters**

Product family	OMNIMATE Signal - series B2C/S2C 3.50 - 2-row	Type of connection	Field connection
Wire connection method	PUSH IN with actuator, Tension-clamp connection	Pitch in mm (P)	3.5 mm
Pitch in inches (P)	0.138 inch	Conductor outlet direction	180°
Number of poles	12	L1 in mm	17.5 mm
L1 in inches	0.689 inch	Number of rows	1
Pin series quantity	2	Rated cross-section	1.5 mm <sup>2</sup>
Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch	Touch-safe protection acc. to DIN VDE 0470	IP20 plugged/ IP10 unplugged
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.	3.5 N	Pulling force/pole, max.	3.5 N

**Material data**

Insulating material	PA 66 GF 30	Colour	Traffic yellow
Colour chart (similar)	RAL 1023	Insulating material group	II
Comparative Tracking Index (CTI)	≥ 600	Insulation strength	≥ 10 <sup>8</sup> 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 <sup>2</sup>
Clamping range, max.	1.5 mm <sup>2</sup>
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 <sup>2</sup>
Solid, max. H05(07) V-U	1.5 mm <sup>2</sup>
Flexible, min. H05(07) V-K	0.14 mm <sup>2</sup>
Flexible, max. H05(07) V-K	1.5 mm <sup>2</sup>
w. plastic collar ferrule, DIN 46228 pt 4, min.	0.14 mm <sup>2</sup>
w. plastic collar ferrule, DIN 46228 pt 4, max.	1 mm <sup>2</sup>
w. wire end ferrule, DIN 46228 pt 1, min.	0.14 mm <sup>2</sup>

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**Technical data**

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w. wire end ferrule, DIN 46228 pt 1, max. 1.5 mm<sup>2</sup>

Clampable conductor	Cross-section for conductor connection	Type	fine-wired
		nominal	0.14 mm <sup>2</sup>
wire end ferrule	Stripping length	nominal	10 mm
	Recommended wire-end ferrule	<a href="#">H0.14/12 GR SV</a>	
Clampable conductor	Cross-section for conductor connection	Type	fine-wired
		nominal	0.25 mm <sup>2</sup>
wire end ferrule	Stripping length	nominal	10 mm
	Recommended wire-end ferrule	<a href="#">H0.25/12 HBL SV</a>	
Clampable conductor	Cross-section for conductor connection	Type	fine-wired
		nominal	0.34 mm <sup>2</sup>
wire end ferrule	Stripping length	nominal	10 mm
	Recommended wire-end ferrule	<a href="#">H0.34/12 TK SV</a>	
Clampable conductor	Cross-section for conductor connection	Type	fine-wired
		nominal	0.5 mm <sup>2</sup>
wire end ferrule	Stripping length	nominal	12 mm
	Recommended wire-end ferrule	<a href="#">H0.5/16 OR SV</a>	
	Stripping length	nominal	10 mm
	Recommended wire-end ferrule	<a href="#">H0.5/10</a>	
Clampable conductor	Cross-section for conductor connection	nominal	0.75 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 12 mm
Recommended wire-end ferrule		<a href="#">H0.75/16 W SV</a>	
Stripping length		nominal 10 mm	
Recommended wire-end ferrule	<a href="#">H0.75/10</a>		
Clampable conductor	Cross-section for conductor connection	nominal	1
	wire end ferrule	Stripping length	nominal 12 mm
Recommended wire-end ferrule		<a href="#">H1.0/16 GE SV</a>	
Stripping length		nominal 10 mm	
Recommended wire-end ferrule		<a href="#">H1.0/10</a>	
Clampable conductor	Cross-section for conductor connection	nominal	1.5 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 10 mm
Recommended wire-end ferrule		<a href="#">H1.5/10</a>	

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 III/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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Rated voltage (Use group B / CSA) 300 V

Rated current (Use group B / CSA) 9.5 A

Rated voltage (Use group D / CSA) 300 V

Rated current (Use group D / CSA) 9.5 A

Wire cross-section, AWG, min. AWG 30

Wire cross-section, AWG, max. AWG 16

Rated voltage (Use group C / CSA) 50 V

Rated current (Use group C / CSA) 9.5 A

Rated voltage (Use group D / CSA) 50 V

Rated current (Use group D / CSA) 9.5 A

Wire cross-section, AWG, min. AWG 30

Wire cross-section, AWG, max. AWG 16

Rated voltage (Use group B / UL 1059) 300 V

Rated current (Use group B / UL 1059) 9.5 A

Rated voltage (Use group D / UL 1059) 300 V

Rated current (Use group D / UL 1059) 9.5 A

Wire cross-section, AWG, min. AWG 30

Wire cross-section, AWG, max. AWG 16

Reference to approval values

Specifications are maximum values, details - see approval certificate.

Institute (cURus)



Certificate No. (cURus)

E60693

**Packing**

Packaging Box VPE length 350 mm

VPE width 137 mm VPE height 36 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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IEC 60999-1 section 7 and 9.1 / 11.99, IEC 60947-1 section 8.2.1.5, IEC 60311

Test: Clampable cross section	Standard	IEC 60999-1 section 7 and 9.1 / 11.99, IEC 60947-1 section 8.2.1.5, IEC 60311	
	Conductor type	Type of conductor and conductor cross-section	solid 0.14 mm <sup>2</sup>
		Type of conductor and conductor cross-section	stranded 0.14 mm <sup>2</sup>
		Type of conductor and conductor cross-section	solid 1.5 mm <sup>2</sup>
		Type of conductor and conductor cross-section	stranded 1.5 mm <sup>2</sup>
		Type of conductor and conductor cross-section	AWG 26/1
		Type of conductor and conductor cross-section	AWG 26/19
		Type of conductor and conductor cross-section	AWG 16/1
		Type of conductor and conductor cross-section	AWG 16/19
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 conductor cross-section	AWG 26/1
		Type of conductor and conductor cross-section	AWG 26/19
	Evaluation	passed	
	Requirement	0.3 kg	
	Conductor type	Type of conductor and conductor cross-section	H05V-U0.75
		Type of conductor and conductor cross-section	H05V-K0.75
	Evaluation	passed	
	Requirement	0.4 kg	
	Conductor type	Type of conductor and conductor cross-section	H07V-U1.5
		Type of conductor and conductor cross-section	H07V-K1.5
Type of conductor and conductor cross-section		AWG 16/1	
Type of conductor and conductor cross-section		AWG 16/19	
Evaluation	passed		

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

**Classifications**

ETIM 6.0	EC002638	ETIM 7.0	EC002638
ETIM 8.0	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

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**Important note**

IPC conformity	Conformity: The products are developed, manufactured and delivered according to 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	<ul style="list-style-type: none"> <li>• Additional variants on request</li> <li>• Gold-plated contact surfaces on request</li> <li>• Gold-plated contact surfaces on request</li> <li>• 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.</li> <li>• P on drawing = pitch</li> <li>• 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.</li> <li>• Max. outer diameter of the conductor 2.6 mm</li> <li>• Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months</li> </ul>

**Approvals**

Approvals



UL File Number Search	UL Website
Certificate No. (cURus)	E60693

**Downloads**

Approval/Certificate/Document of Conformity	<a href="#">Declaration of the Manufacturer</a>
Product Change Notification	<a href="#">20210721 Technical change Redesign B2CF 3.50</a> <a href="#">20210721 Technische Änderung Redesign zu B2CF 3.50</a> <a href="#">20220530 Change of packaging OMNIMATE® Signal B2CF 3.50</a> <a href="#">20220530 Verpackungsänderung OMNIMATE® Signal B2CF 3.50</a>
User Documentation	<a href="#">Operating instruction</a>
Catalogues	<a href="#">Catalogues in PDF-format</a>
Brochures	<a href="#">FL DRIVES EN</a> <a href="#">MB DEVICE MANUF. EN</a> <a href="#">FL DRIVES DE</a> <a href="#">FL BUILDING SAFETY EN</a> <a href="#">FL APPL LED LIGHTING EN</a> <a href="#">FL INDUSTR.CONTROLS EN</a> <a href="#">FL MACHINE SAFETY EN</a> <a href="#">FL HEATING ELECTR EN</a> <a href="#">FL APPL INVERTER EN</a> <a href="#">FL_BASE_STATION_EN</a> <a href="#">FL ELEVATOR EN</a> <a href="#">FL POWER SUPPLY EN</a> <a href="#">FL 72H SAMPLE SER EN</a> <a href="#">PO OMNIMATE EN</a>

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Catalogue status 28.04.2023 / We reserve the right to make technical changes.

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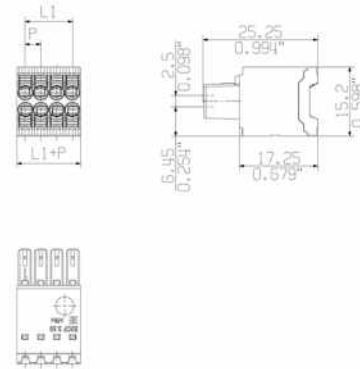
**Drawings**

**Product image**

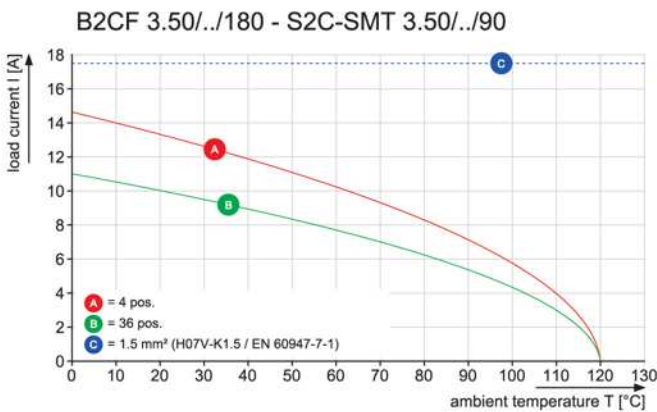


similar to illustration

**Dimensional drawing** [info@weidmueller.com](mailto:info@weidmueller.com)



**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**

**Example of use**

