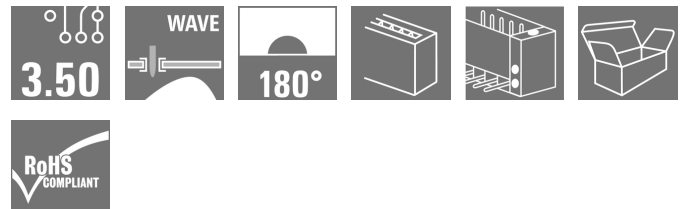
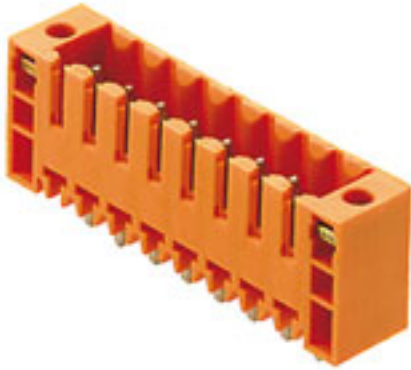


## OMNIMATE Signal - series BL/SL 3.50 SL 3.50/02/180F 3.2SN OR BX

**Weidmüller Interface GmbH & Co. KG**  
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Fax: +49 5231 14-292083  
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### Product image



Similar to illustration

Pin headers for wave soldering in 3.50 mm pitch

- Plugging direction is parallel (90°), straight 180° or angled (135°) to the PCB
- Housing variant: screw flange (F)
- Packed in a cardboard box (BX)
- Pin header can be coded

### General ordering data

Type	SL 3.50/02/180F 3.2SN OR BX
Order No.	<a href="#">1607500000</a>
Version	PCB plug-in connector, male header, Flange, THT solder connection, 3.50 mm, Number of poles: 2, 180°, Solder pin length (l): 3.2 mm, tinned, orange, Box
GTIN (EAN)	4008 190180317
Qty.	100 pc(s).
Product data	IEC: 320 V / 17 A UL: 300 V / 10 A
Packaging	Box

Creation date May 3, 2020 9:58:36 PM CEST

**OMNIMATE Signal - series BL/SL 3.50**  
**SL 3.50/02/180F 3.2SN OR BX**

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

Width	14 mm	Width (inches)	0.551 inch
Height	14.3 mm	Height (inches)	0.563 inch
Height of lowest version	11.1 mm	Depth	7.5 mm
Depth (inches)	0.295 inch	Net weight	1.1 g

**System specifications**

Product family	OMNIMATE Signal - series BL/SL 3.50		
Type of connection	Board connection		
Mounting onto the PCB	THT solder connection		
Pitch in mm (P)	3.5 mm		
Pitch in inches (P)	0.138 inch		
Outgoing elbow	180°		
Number of poles	2		
Number of solder pins per pole	1		
Solder pin length (l)	3.2 mm		
Solder pin length tolerance	+0.1 / -0.3 mm		
Tolerance of solder pin position	± 0.1 mm		
Solder pin dimensions	d = 1.2 mm, Octagonal		
Solder pin dimensions = d tolerance	0 / -0,03 mm		
Solder eyelet hole diameter (D)	1.4 mm		
Solder eyelet hole diameter tolerance (D)	+ 0,1 mm		
L1 in mm	3.5 mm		
L1 in inches	0.138 inch		
Number of rows	1		
Pin series quantity	1		
Touch-safe protection acc. to DIN VDE 57 106	Safe from back-of-hand touch		
Touch-safe protection acc. to DIN VDE 0470	IP 10		
Volume resistance	≤ 5mΩ		
Can be coded	Yes		
Plugging cycles	25		
Plugging force/pole, max.	10 N		
Pulling force/pole, max.	10 N		
Tightening torque	Torque type	PCB, Screw flange	
	Usage information	Tightening torque	min. 0.1 Nm max. 0.15 Nm
		Recommended screw	Part number <a href="#">PTSC KA 2.2X4.5 WN1412</a>

**Material data**

Insulating material	PBT	Colour	orange
Colour chart (similar)	RAL 2000	Insulating material group	IIIa
Comparative Tracking Index (CTI)	≥ 200	Insulation strength	≥ 10 <sup>8</sup> Ω
UL 94 flammability rating	V-0	GWFI	960 °C
Contact material	CuSn	Contact surface	tinned
Layer structure of solder connection	5-7 μm Sn glossy	Layer structure of plug contact	5-7 undefined Sn glossy
Storage temperature, min.	-25 °C	Storage temperature, max.	50 °C
Max. relative humidity during storage	70 %	Operating temperature, min.	-50 °C
Operating temperature, max.	100 °C	Temperature range, installation, min.	-30 °C
Temperature range, installation, max.	100 °C		

Creation date May 3, 2020 9:58:36 PM CEST


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**Technical data****Rated data acc. to IEC**

tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. number of poles (Tu=20°C)	17 A
Rated current, max. number of poles (Tu=20°C)	12 A	Rated current, min. number of poles (Tu=40°C)	14.5 A
Rated current, max. number of poles (Tu=40°C)	10 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 100 A

**Rated data acc. to CSA**

Institute (CSA)		Certificate No. (CSA)	154685-1318353
Rated voltage (Use group B / CSA)	300 V	Rated voltage (Use group D / CSA)	300 V
Rated current (Use group B / CSA)	10 A	Rated current (Use group D / CSA)	10 A
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

**Rated data acc. to UL 1059**

Institute (UR)		Certificate No. (UR)	E60693
Rated voltage (Use group B / UL 1059)	300 V	Rated voltage (Use group D / UL 1059)	300 V
Rated current (Use group B / UL 1059)	10 A	Rated current (Use group D / UL 1059)	10 A
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

**Packing**

Packaging	Box	VPE length	39 mm
VPE width	91 mm	VPE height	101 mm

**Classifications**

ETIM 6.0	EC002637	ETIM 7.0	EC002637
eClass 9.0	27-44-04-02	eClass 9.1	27-44-04-02
eClass 10.0	27-44-04-02	UNSPSC	30-21-18-10

**Data sheet**

**OMNIMATE Signal - series BL/SL 3.50  
SL 3.50/02/180F 3.2SN OR BX**

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**Technical data**

**Notes**

- |       |   |
|-------|---|
| Notes | <ul style="list-style-type: none"> <li>• Additional colours on request</li> <li>• Gold-plated contact surfaces on request</li> <li>• Rated current related to rated cross-section &amp; min. No. of poles.</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>• For additional mechanical support for male connectors with screw flange (...F), we recommend an additional cable gland with fastening screws (sheet metal screw ISO 1481-ST 2.2x4.5 C or ISO 7049-ST 2.2x4.5 C – see Accessories). Cable gland only permitted before soldering.</li> </ul> |
|-------|---|

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.
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**Approvals**

Approvals



ROHS	Conform
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**Downloads**

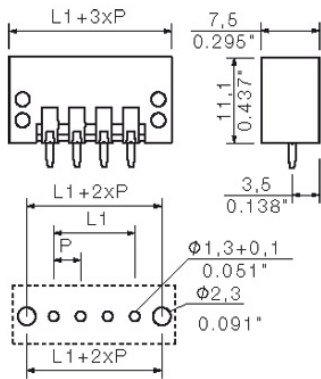
- |   |  |
|---|--|
| Approval/Certificate/Document of Conformity | <a href="#">Declaration of the Manufacturer</a>  |
| Brochure/Catalogue                          | <a href="#">FL DRIVES EN</a><br><a href="#">MB DEVICE MANUF. EN</a><br><a href="#">FL DRIVES DE</a><br><a href="#">CAT 2 PORTFOLIOGUIDE EN</a><br><a href="#">FL BUILDING SAFETY EN</a><br><a href="#">FL APPL LED LIGHTING EN</a><br><a href="#">FLIndustr.CONTROLS EN</a><br><a href="#">FL MACHINE SAFETY EN</a><br><a href="#">FL HEATING ELECTR EN</a><br><a href="#">FL APPL INVERTER EN</a><br><a href="#">FL_BASE_STATION_EN</a><br><a href="#">FL ELEVATOR EN</a><br><a href="#">FL POWER SUPPLY EN</a><br><a href="#">FL 72H SAMPLE SER EN</a><br><a href="#">PO OMNIMATE EN</a> |
| Engineering Data                            | <a href="#">SL.zip</a><br><a href="#">STEP</a>   |

**OMNIMATE Signal - series BL/SL 3.50  
SL 3.50/02/180F 3.2SN OR BX**

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**Drawings**

**Dimensional drawing**



**OMNIMATE Signal - series BL/SL 3.50  
SL 3.50/02/180F 3.2SN OR BX**

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**Mating connector (conditionally pluggable)**
**BL 3.50/180LH**


Female connectors with clamping yoke screw system for connecting conductors at 3.50 mm pitch. They provide space for labelling and can be coded.

**General ordering data**

Type	BL 3.50/02/180LH SN OR ...	Version	Product data	Packaging
Order No.	<a href="#">1687650000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 2,	IEC: 320 V / 17 A / 0.2 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190853204	180°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> ,	UL: 300 V / 10 A / AWG 28 - AWG 14	
Qty.	132 pc(s).	Box		
Type	BL 3.50/02/180LH SN BK ...	Version	Product data	Packaging
Order No.	<a href="#">1687880000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 2,	IEC: 320 V / 17 A / 0.2 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190853433	180°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> ,	UL: 300 V / 10 A / AWG 28 - AWG 14	
Qty.	132 pc(s).	Box		

**BL 3.50/90**


Female connectors with clamping yoke screw system for connecting conductors at 3.50 mm pitch. They provide space for labelling and can be coded.

**General ordering data**

Type	BL 3.50/02/90 SN BK BX	Version	Product data	Packaging
Order No.	<a href="#">1638780000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 2,	IEC: 320 V / 12 A / 0.2 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190276324	90°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	UL: 300 V / 8 A / AWG 28 - AWG 14	
Qty.	258 pc(s).			
Type	BL 3.50/02/90 SN OR BX	Version	Product data	Packaging
Order No.	<a href="#">1638550000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 2,	IEC: 320 V / 12 A / 0.2 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190276102	90°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	UL: 300 V / 8 A / AWG 28 - AWG 14	
Qty.	258 pc(s).			

**OMNIMATE Signal - series BL/SL 3.50  
SL 3.50/02/180F 3.2SN OR BX**

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**Mating connector (conditionally pluggable)**
**BL 3.50/270**


Female connectors with clamping yoke screw system for connecting conductors at 3.50 mm pitch. They provide space for labelling and can be coded.

**General ordering data**

Type	BL 3.50/02/270 SN OR BX	Version	Product data	Packaging
Order No.	<a href="#">1639470000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 2,	IEC: 320 V / 12 A / 0.2 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190277024	270°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> ,	UL: 300 V / 8 A / AWG 28 - AWG 14	
Qty.	258 pc(s).	Box		
Type	BL 3.50/02/270 SN BK BX	Version	Product data	Packaging
Order No.	<a href="#">1639700000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 2,	IEC: 320 V / 12 A / 0.2 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190277253	270°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> ,	UL: 300 V / 8 A / AWG 28 - AWG 14	
Qty.	258 pc(s).	Box		

**BLIDC 3.5 SN**


Female connectors for fast processing with insulation displacement connectors (IDC) for connecting wires at 3.50 mm pitch. They provide space for labelling and can be coded.

**General ordering data**

Type	BLIDC 3.50/02/180 SN OR ...	Version	Product data	Packaging
Order No.	<a href="#">1750790000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 2,	IEC: 320 V / 6 A / 0.2 - 0.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248146086	90°/270°, IDC terminal, Clamping range, max. : 0.5 mm <sup>2</sup> , Box	UL: 300 V / 7 A / AWG 22 - AWG 20	
Qty.	100 pc(s).			
Type	BLIDC 3.50/02/180 SN BK ...	Version	Product data	Packaging
Order No.	<a href="#">1770940000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 2,	IEC: 320 V / 6 A / 0.2 - 0.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248146338	90°/270°, IDC terminal, Clamping range, max. : 0.5 mm <sup>2</sup> , Box	UL: 300 V / 7 A / AWG 22 - AWG 20	
Qty.	100 pc(s).			

**OMNIMATE Signal - series BL/SL 3.50  
SL 3.50/02/180F 3.2SN OR BX**

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**Mating connector (conditionally pluggable)**
**BL 3.50/180**


Female connectors with clamping yoke screw system for connecting conductors at 3.50 mm pitch. They provide space for labelling and can be coded.

**General ordering data**

Type	BL 3.50/02/180 SN OR BX	Version	Product data	Packaging
Order No.	<a href="#">1597360000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 2,	IEC: 320 V / 17 A / 0.2 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190435868	180°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> ,	UL: 300 V / 10 A / AWG 28 - AWG 14	
Qty.	264 pc(s).	Box		
Type	BL 3.50/02/180 SN OR BX ...	Version	Product data	Packaging
Order No.	<a href="#">1740621001</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 2,	IEC: 320 V / 17 A / 0.2 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190961503	180°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> ,	UL: 300 V / 10 A / AWG 28 - AWG 14	
Qty.	264 pc(s).	Box		
Type	BL 3.50/02/180 SN DKG ...	Version	Product data	Packaging
Order No.	<a href="#">1606520000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 2,	IEC: 320 V / 17 A / 0.2 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190170202	180°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> ,	UL: 300 V / 10 A / AWG 28 - AWG 14	
Qty.	264 pc(s).	Box		
Type	BL 3.50/02/180 SN GY BX	Version	Product data	Packaging
Order No.	<a href="#">1620450000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 2,	IEC: 320 V / 17 A / 0.2 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190156756	180°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> ,	UL: 300 V / 10 A / AWG 28 - AWG 14	
Qty.	100 pc(s).	Box		
Type	BL 3.50/02/180 SN BK BX	Version	Product data	Packaging
Order No.	<a href="#">1615670000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 2,	IEC: 320 V / 17 A / 0.2 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190058890	180°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> ,	UL: 300 V / 10 A / AWG 28 - AWG 14	
Qty.	264 pc(s).	Box		

**BLIDCB 3.5**


Female connectors for fast processing with insulation displacement connectors (IDC) for connecting wires at 3.50 pitch. They provide space for labelling and can be coded.

**General ordering data**

Type	BLIDCB 3.50/02/- SN OR ...	Version	Product data	Packaging
Order No.	<a href="#">1751380000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 2,	IEC: 250 V / 6 A / 0.35 - 0.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248174201	90°/270°, IDC terminal, Clamping range, max. : 0.5 mm <sup>2</sup> , Box	UL: 300 V / 7 A / AWG 22 - AWG 20	
Qty.	10 pc(s).			



## Data sheet

### OMNIMATE Signal - series BL/SL 3.50 SL 3.50/02/180F 3.2SN OR BX

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### Mating connector (conditionally pluggable)

Type	BLIDCB 3.50/02/- SN BK ...	Version	Product data	Packaging
Order No.	<a href="#">1770670000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 2,	IEC: 250 V / 6 A / 0.35 - 0.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248174454	90°/270°, IDC terminal, Clamping range, max. : 0.5 mm <sup>2</sup> , Box	UL: 300 V / 7 A / AWG 22 - AWG 20	
Qty.	10 pc(s).			

**OMNIMATE Signal - series BL/SL 3.50  
SL 3.50/02/180F 3.2SN OR BX**

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**Mating connector (fully pluggable)**
**BLIDCB 3.5F**


Female connectors for fast processing with insulation displacement connectors (IDC) for connecting wires at 3.50 pitch. They provide space for labelling and can be coded.

**General ordering data**

Type	BLIDCB 3.50/02/-F SN BK ...	Version	Product data	Packaging
Order No.	<a href="#">1770740000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 2,	IEC: 250 V / 6 A / 0.35 - 0.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248174522	90°/270°, IDC terminal, Clamping range, max. : 0.5 mm <sup>2</sup> , Box	UL: 300 V / 7 A / AWG 22 - AWG 20	
Qty.	10 pc(s).			
Type	BLIDCB 3.50/02/-F SN OR ...	Version	Product data	Packaging
Order No.	<a href="#">1751450000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 2,	IEC: 250 V / 6 A / 0.35 - 0.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248174386	90°/270°, IDC terminal, Clamping range, max. : 0.5 mm <sup>2</sup> , Box	UL: 300 V / 7 A / AWG 22 - AWG 20	
Qty.	10 pc(s).			

**BL 3.50/180F**


Female connectors with clamping yoke screw system for connecting conductors at 3.50 mm pitch. They provide space for labelling and can be coded.

**General ordering data**

Type	BL 3.50/02/180F SN OR BX	Version	Product data	Packaging
Order No.	<a href="#">1606640000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 2,	IEC: 320 V / 17 A / 0.2 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190187088	180°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	UL: 300 V / 10 A / AWG 28 - AWG 14	
Qty.	132 pc(s).			
Type	BL 3.50/02/180F SN BK BX	Version	Product data	Packaging
Order No.	<a href="#">1615780000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 2,	IEC: 320 V / 17 A / 0.2 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190061272	180°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	UL: 300 V / 10 A / AWG 28 - AWG 14	
Qty.	132 pc(s).			
Type	BL 3.50/02/180F SN GY BX	Version	Product data	Packaging
Order No.	<a href="#">1620920000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 2,	IEC: 320 V / 17 A / 0.2 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190166090	180°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	UL: 300 V / 10 A / AWG 28 - AWG 14	
Qty.	100 pc(s).			
Type	BL 3.50/02/180F SN DKGN ...	Version	Product data	Packaging
Order No.	<a href="#">1621150000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 2,	IEC: 320 V / 17 A / 0.2 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190169190	180°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	UL: 300 V / 10 A / AWG 28 - AWG 14	
Qty.	100 pc(s).			

## OMNIMATE Signal - series BL/SL 3.50 SL 3.50/02/180F 3.2SN OR BX

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### Mating connector (fully pluggable)

Type	BL 3.50/02/180F SN OR B ...	Version	Product data	Packaging
Order No.	<a href="#">1740711001</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 2,	IEC: 320 V / 17 A / 0.2 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190961695	180°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> ,	UL: 300 V / 10 A / AWG 28 - AWG 14	
Qty.	132 pc(s).	Box		

### BLF 3.50/180LH



Connect efficiently - in a small space: female header with spring connection (PUSH IN) as a plug-in connection level; used together with male headers in 3.50 mm pitch.

#### General ordering data

Type	BLF 3.50/02/180LH SN BK ...	Version	Product data	Packaging
Order No.	<a href="#">2537880000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 2,	IEC: 320 V / 17.5 A / 0.14 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4050118549539	180°, PUSH IN, Spring connection, Clamping range, max. : 1.5 mm <sup>2</sup> ,	UL: 300 V / AWG 26 - AWG 16	
Qty.	132 pc(s).	Box		

### BL 3.50/90F



Female connectors with clamping yoke screw system for connecting conductors at 3.50 mm pitch. They provide space for labelling and can be coded.

#### General ordering data

Type	BL 3.50/02/90F SN BK BX	Version	Product data	Packaging
Order No.	<a href="#">1639240000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 2,	IEC: 320 V / 12 A / 0.2 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190276782	90°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> ,	UL: 300 V / 8 A / AWG 28 - AWG 14	
Qty.	156 pc(s).	Box		
Type	BL 3.50/02/90F SN OR BX	Version	Product data	Packaging
Order No.	<a href="#">1639010000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 2,	IEC: 320 V / 12 A / 0.2 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190276553	90°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> ,	UL: 300 V / 8 A / AWG 28 - AWG 14	
Qty.	156 pc(s).			

**OMNIMATE Signal - series BL/SL 3.50  
SL 3.50/02/180F 3.2SN OR BX**

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Germany  
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www.weidmueller.com

**Mating connector (fully pluggable)**
**BLF 3.50/180FQV**


Connect efficiently - in a small space: female header with spring connection (PUSH IN) as a plug-in connection level; used together with male headers in 3.50 mm pitch.

**General ordering data**

Type	BLF 3.50/02/180FQV SN O ...	Version	Product data	Packaging
Order No.	<a href="#">2460160000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 2,	IEC: 320 V / 17.5 A / 0.14 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4050118474886	180°, PUSH IN, Spring connection, Clamping range, max. : 1.5 mm <sup>2</sup> ,	UL: 300 V / AWG 26 - AWG 16	
Qty.	132 pc(s).	Box		
Type	BLF 3.50/02/180FQV SN B ...	Version	Product data	Packaging
Order No.	<a href="#">2537900000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 2,	IEC: 320 V / 17.5 A / 0.14 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4050118549522	180°, PUSH IN, Spring connection, Clamping range, max. : 1.5 mm <sup>2</sup> ,	UL: 300 V / AWG 26 - AWG 16	
Qty.	132 pc(s).	Box		

**BL 3.50/270F**


Female connectors with clamping yoke screw system for connecting conductors at 3.50 mm pitch. They provide space for labelling and can be coded.

**General ordering data**

Type	BL 3.50/02/270F SN BK BX	Version	Product data	Packaging
Order No.	<a href="#">1640160000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 2,	IEC: 320 V / 12 A / 0.2 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190277727	270°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> ,	UL: 300 V / 8 A / AWG 28 - AWG 14	
Qty.	156 pc(s).	Box		
Type	BL 3.50/02/270F SN OR BX	Version	Product data	Packaging
Order No.	<a href="#">1639930000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 2,	IEC: 320 V / 12 A / 0.2 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190277482	270°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> ,	UL: 300 V / 8 A / AWG 28 - AWG 14	
Qty.	156 pc(s).	Box		

**OMNIMATE Signal - series BL/SL 3.50  
SL 3.50/02/180F 3.2SN OR BX**

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**Mating connector (fully pluggable)**
**BLF 3.50/180F**


Connect efficiently - in a small space: female header with spring connection (PUSH IN) as a plug-in connection level; used together with male headers in 3.50 mm pitch.

**General ordering data**

Type	BLF 3.50/02/180F SN BK ...	Version	Product data	Packaging
Order No.	<a href="#">2459570000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 2,	IEC: 320 V / 17.5 A / 0.14 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4050118474985	180°, PUSH IN, Spring connection, Clamping range, max.: 1.5 mm <sup>2</sup> ,	UL: 300 V / AWG 26 - AWG 16	
Qty.	132 pc(s).	Box		
Type	BLF 3.50/02/180F SN OR ...	Version	Product data	Packaging
Order No.	<a href="#">2459390000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 2,	IEC: 320 V / 17.5 A / 0.14 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4050118474800	180°, PUSH IN, Spring connection, Clamping range, max.: 1.5 mm <sup>2</sup> ,	UL: 300 V / AWG 26 - AWG 16	
Qty.	132 pc(s).	Box		

## OMNIMATE Signal - series BL/SL 3.50 SL 3.50/02/180F 3.2SN OR BX

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# 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	BL SL 3.5 KO OR	Version	Product data	Packaging
Order No.	<a href="#">1693430000</a>	PCB plug-in connector, Accessories, Coding element, orange, Number		Box
GTIN (EAN)	4008190867447	of poles: 1		
Qty.	100 pc(s).			
Type	BL SL 3.5 KO SW	Version	Product data	Packaging
Order No.	<a href="#">1610100000</a>	PCB plug-in connector, Accessories, Coding element, black, Number		Box
GTIN (EAN)	4008190187637	of poles: 1		
Qty.	100 pc(s).			

## Additional accessories



**No task is too small when creating the perfect solution.** br />

Connections form just one part of the overall process. Small details are often the key to the perfect solution in applications where potentials are tested, grouped or even isolated.

A system is not a system without small but useful details:

- Test plugs - ensure reliable pick-up from diagnostic sockets
- Cross-connectors - ensure a stable electrical distribution contact directly at the connection
- Compartment partition elements - divide a large number of male connectors into several separate socket connector channels
- Locks and clips - optional vibration-resistant clip-on connection or mounting for male and female connectors

In tandem with the manufacturing process and application - more accessories = smaller workload

### General ordering data

Type	BL/SL 3.50 VR OR BX	Version	Product data
Order No.	<a href="#">1669310000</a>	PCB plug-in connector, Accessories, Latches, orange, Number of poles:	
GTIN (EAN)	4008190428488	1	
Qty.	100 pc(s).		

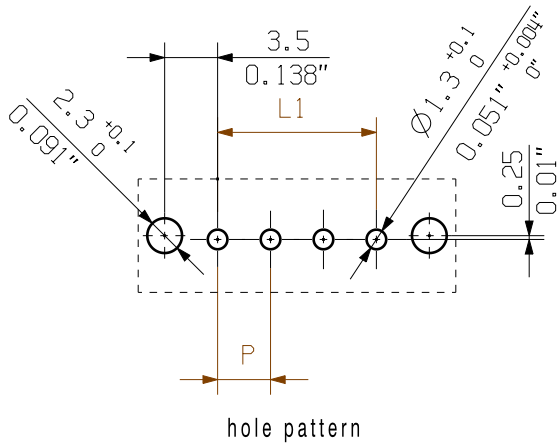
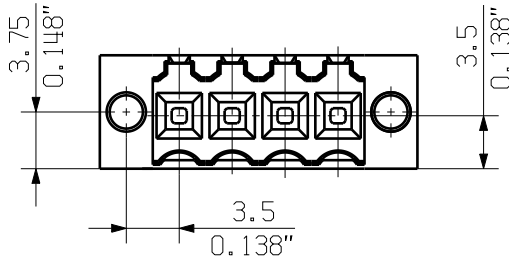
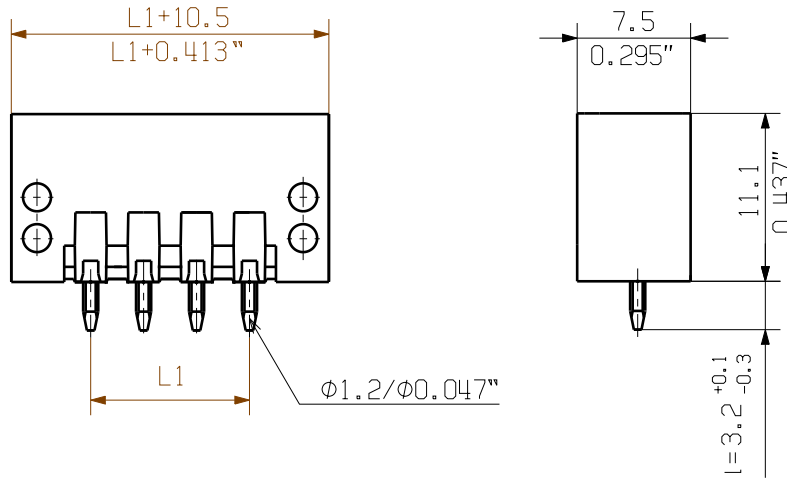
**Data sheet**

**OMNIMATE Signal - series BL/SL 3.50  
SL 3.50/02/180F 3.2SN OR BX**

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**Accessories**

Type	PTSC KA 2.2X4.5 WN1412	Version	Product data
Order No.	<a href="#">1610740000</a>	PCB plug-in connector, Accessories, Mounting screw, Number of	
GTIN (EAN)	4008190039523	poles: 1	
Qty.	100 pc(s).		
Type	BL/SL 3.50 VR BK BX	Version	Product data
Order No.	<a href="#">1669300000</a>	PCB plug-in connector, Accessories, Latches, black, Number of poles:	
GTIN (EAN)	4008190428471	1	
Qty.	100 pc(s).		



hole pattern

24	80.5	3.171	±0.2
23	77.0	3.033	
22	73.5	2.895	
21	70.0	2.757	
20	66.5	2.619	
19	63.0	2.481	
18	59.5	2.343	
17	56.0	2.205	
16	52.5	2.067	±0.15
15	49.0	1.929	
14	45.5	1.791	
13	42.0	1.654	
12	38.5	1.516	±0.1
11	35.0	1.378	
10	31.5	1.240	
9	28.0	1.102	
8	24.5	0.965	
7	21.0	0.827	
6	17.5	0.689	
5	14.0	0.551	
4	10.5	0.413	
3	7.00	0.276	
2	3.50	0.138	
n no of poles	L1 [mm]	L1 [inch]	Toleranz/ tolerance

For the mounting of PCBs, it should be noted that the rated data given in the catalogue relates only to the connection elements. The necessary creepage and clearance paths must be observed in connection with the respective applicant in accordance to VDE 0110. The current-carrying capacity and pitch tolerance is to be determined according to DIN IEC 326 part 3 very fine.

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.

P = Raster / pitch

shown: SL 3.50/04/180F

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General tolerance:  
DIN ISO 2768-mK



90310/5  
30.09.16 HELIS\_MA 00

Modification

**Weidmüller**

Cat.no.: . . . . .  
**4 19672 28**

Drawing no. Issue no.  
Sheet 03 of 03 sheets



Date Name

Drawn 04.09.2008 HELIS\_MA

Responsible AMANN\_A

Checked 18.10.2016 HELIS\_MA

Approved LANG\_T

**SL 3.50/.. /180...**  
STIFTLISTE  
MALE HEADER

Scale: 5:1

Supersedes: .

Product file: SL 3.50

7296



## Recommended wave soldering profiles

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### Single Wave:



### Double Wave:



### Wave soldering profiles

Wired connection elements should be processed in accordance with the DIN EN 61760-1 standard. We have included two recommendations for practical wave soldering profiles, with which Weidmüller PCB terminals and connectors are qualified.

When choosing a suitable profile for your application, the following factors also need to be considered:

- PCB thickness
- Proportion of Cu in the layers
- Single/double-sided assembly
- Product range
- Heating and cooling rates

The single and double wave profiles each indicate the recommended operating range, including the maximum soldering temperature of 260°C. In practice, the maximum soldering temperature is quite often well below the above maximum profile.