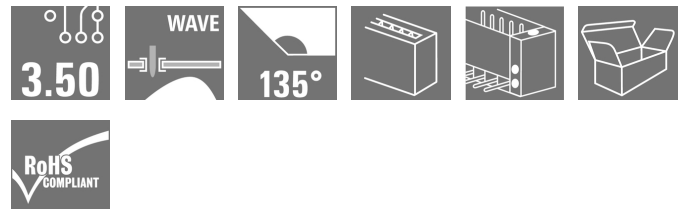


OMNIMATE Signal - series BL/SL 3.50 SL 3.50/10/135F 3.2SN OR BX

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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 3.50/10/135F 3.2SN OR BX
Order No.	1643410000
Version	PCB plug-in connector, male header, Flange, THT solder connection, 3.50 mm, Number of poles: 10, 135°, Solder pin length (l): 3.2 mm, tinned, orange, Box
GTIN (EAN)	4008 190282172
Qty.	42 pc(s).
Product data	IEC: 320 V / 15 A UL: 300 V / 10 A
Packaging	Box

Creation date May 3, 2020 5:03:40 PM CEST

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SL 3.50/10/135F 3.2SN OR BX

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Technical data
Dimensions and weights

Width	42 mm	Width (inches)	1.654 inch
Height	16.2 mm	Height (inches)	0.638 inch
Height of lowest version	13 mm	Depth	13.2 mm
Depth (inches)	0.52 inch	Net weight	3.925 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	135°		
Number of poles	10		
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	± 0.15 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	31.5 mm		
L1 in inches	1.24 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 PTSC KA 2.2X4.5 WN1412

Material data

Insulating material	PBT	Colour	orange
Colour chart (similar)	RAL 2000	Insulating material group	IIIa
Comparative Tracking Index (CTI)	≥ 200	Insulation strength	≥ 10 ⁸ Ω
UL 94 flammability rating	V-0	GWFI	960 °C
Contact material	CuSn	Contact surface	tinned
Layer structure of solder connection	1-3 μm Ni / 2-4 μm Sn matt	Layer structure of plug contact	1-3 μm Ni / 2-4 μm Sn matt
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		

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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)	15 A
Rated current, max. number of poles (Tu=20°C)	11 A	Rated current, min. number of poles (Tu=40°C)	13 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 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	61 mm
VPE width	100 mm	VPE height	118 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 3.50/10/135F 3.2SN OR BX**

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Technical data

Notes

Notes	<ul style="list-style-type: none"> • Additional colours on request • Gold-plated contact surfaces on request • Rated current related to rated cross-section & min. No. of poles. • 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.
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



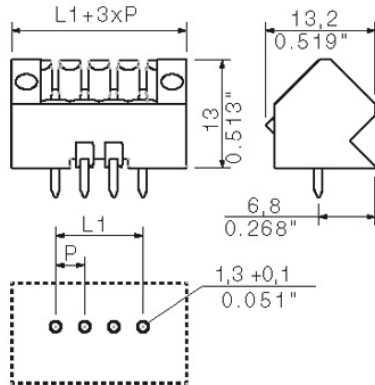
ROHS Conform

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	SL.zip

**OMNIMATE Signal - series BL/SL 3.50
SL 3.50/10/135F 3.2SN OR BX**

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Drawings**Dimensional drawing**

**OMNIMATE Signal - series BL/SL 3.50
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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 3.50/10/180LH SN BK ...	Version	Product data	Packaging
Order No.	1687960000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 10,	IEC: 320 V / 17 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4008190853518	180°, Clamping yoke connection, Clamping range, max. : 1.5 mm ² ,	UL: 300 V / 10 A / AWG 28 - AWG 14	
Qty.	42 pc(s).	Box		
Type	BL 3.50/10/180LH SN OR ...	Version	Product data	Packaging
Order No.	1687730000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 10,	IEC: 320 V / 17 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4008190853280	180°, Clamping yoke connection, Clamping range, max. : 1.5 mm ² ,	UL: 300 V / 10 A / AWG 28 - AWG 14	
Qty.	42 pc(s).	Box		

BL-I/O 3.5/30


Female plugs with spring connection (PUSH IN) as a plug-in connection level for decentralised I/O electronic components; used together with male headers in a 3.50-mm pitch.

General ordering data

Type	BL-I/O 3.50/30FP SN LTG ...	Version	Product data	Packaging
Order No.	1965930000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 30,	IEC: 200 V / 2.2 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4032248657599	180°, PUSH IN, Spring connection, Clamping range, max. : 1.5 mm ² ,	UL: 50 V / 5 A / AWG 24 - AWG 16	
Qty.	20 pc(s).	Box		
Type	BL-I/O 3.50/30FP SN BK ...	Version	Product data	Packaging
Order No.	1779910000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 30,	IEC: 200 V / 2.2 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4032248165230	180°, PUSH IN, Spring connection, Clamping range, max. : 1.5 mm ² ,	UL: 50 V / 5 A / AWG 24 - AWG 16	
Qty.	20 pc(s).	Box		

**OMNIMATE Signal - series BL/SL 3.50
SL 3.50/10/135F 3.2SN OR BX**

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Mating connector (conditionally pluggable)
BLZF 3.5/180LH


Female connectors with tension clamp system for connecting cables in 3.50 pitch. They provide space for labelling and can be coded.

General ordering data

Type	BLZF 3.50/10/180LH SN O ...	Version	Product data	Packaging
Order No.	1691650000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 10,	IEC: 320 V / 14.5 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4008190373610	180°, Tension-clamp connection, Clamping range, max.: 1.5 mm ² ,	UL: 300 V / 10 A / AWG 26 - AWG 14	
Qty.	50 pc(s).	Box		
Type	BLZF 3.50/10/180LH SN B ...	Version	Product data	Packaging
Order No.	1691880000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 10,	IEC: 320 V / 14.5 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4008190373856	180°, Tension-clamp connection, Clamping range, max.: 1.5 mm ² ,	UL: 300 V / 10 A / AWG 26 - AWG 14	
Qty.	50 pc(s).	Box		

BLZF 3.5/180


Female connectors with tension clamp system for connecting cables in 3.50 pitch. They provide space for labelling and can be coded.

General ordering data

Type	BLZF 3.50/10/180 SN OR ...	Version	Product data	Packaging
Order No.	1690270000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 10,	IEC: 320 V / 14.5 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4008190328764	180°, Tension-clamp connection, Clamping range, max.: 1.5 mm ² ,	UL: 300 V / 10 A / AWG 26 - AWG 14	
Qty.	50 pc(s).	Box		
Type	BLZF 3.50/10/180 SN DKG ...	Version	Product data	Packaging
Order No.	1690730000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 10,	IEC: 320 V / 14.5 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4008190329242	180°, Tension-clamp connection, Clamping range, max.: 1.5 mm ² ,	UL: 300 V / 10 A / AWG 26 - AWG 14	
Qty.	50 pc(s).	Box		
Type	BLZF 3.50/10/180 SN BK ...	Version	Product data	Packaging
Order No.	1690500000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 10,	IEC: 320 V / 14.5 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4008190329013	180°, Tension-clamp connection, Clamping range, max.: 1.5 mm ² ,	UL: 300 V / 10 A / AWG 26 - AWG 14	
Qty.	50 pc(s).	Box		

**OMNIMATE Signal - series BL/SL 3.50
SL 3.50/10/135F 3.2SN OR BX**

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Mating connector (conditionally pluggable)
BL-I/O 3.5/30 F PNP LED


Female plugs with spring connection (PUSH IN) as a plug-in connection level for decentralised I/O electronic components; used together with male headers in a 3.50-mm pitch.

General ordering data

Type	BL-I/O 3.50/30FP PNP LE ...	Version	Product data	Packaging
Order No.	1965990000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 30,	IEC: / 2.2 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4032248657759	180°, PUSH IN, Spring connection, Clamping range, max. : 1.5 mm ² ,	UL: 50 V / 5 A / AWG 24 - AWG 16	
Qty.	20 pc(s).	Box		
Type	BL-I/O 3.50/30FP PNP LE ...	Version	Product data	Packaging
Order No.	1789100000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 30,	IEC: / 2.2 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4032248208036	180°, PUSH IN, Spring connection, Clamping range, max. : 1.5 mm ² ,	UL: 50 V / 5 A / AWG 24 - AWG 16	
Qty.	20 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 3.50/10/90 SN OR BX	Version	Product data	Packaging
Order No.	1638630000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 10,	IEC: 320 V / 12 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4008190276171	90°, Clamping yoke connection, Clamping range, max. : 1.5 mm ² , Box	UL: 300 V / 8 A / AWG 28 - AWG 14	
Qty.	48 pc(s).			
Type	BL 3.50/10/90 SN BK BX	Version	Product data	Packaging
Order No.	1638860000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 10,	IEC: 320 V / 12 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4008190276409	90°, Clamping yoke connection, Clamping range, max. : 1.5 mm ² , Box	UL: 300 V / 8 A / AWG 28 - AWG 14	
Qty.	48 pc(s).			

**OMNIMATE Signal - series BL/SL 3.50
SL 3.50/10/135F 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 3.50/10/270 SN BK BX	Version	Product data	Packaging
Order No.	1639780000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 10,	IEC: 320 V / 12 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4008190277338	270°, Clamping yoke connection, Clamping range, max. : 1.5 mm ² ,	UL: 300 V / 8 A / AWG 28 - AWG 14	
Qty.	48 pc(s).	Box		
Type	BL 3.50/10/270 SN OR BX	Version	Product data	Packaging
Order No.	1639550000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 10,	IEC: 320 V / 12 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4008190277109	270°, Clamping yoke connection, Clamping range, max. : 1.5 mm ² ,	UL: 300 V / 8 A / AWG 28 - AWG 14	
Qty.	48 pc(s).	Box		

BL-I/O 3.5/10


Female plugs with spring connection (PUSH IN) as a plug-in connection level for decentralised I/O electronic components; used together with male headers in a 3.50-mm pitch.

General ordering data

Type	BL-I/O 3.50/10FP SN LTG ...	Version	Product data	Packaging
Order No.	1965890000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 10,	IEC: 200 V / 2.2 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4032248657551	180°, PUSH IN, Spring connection, Clamping range, max. : 1.5 mm ² ,	UL: 50 V / 5 A / AWG 24 - AWG 16	
Qty.	20 pc(s).	Box		
Type	BL-I/O 3.50/10FP SN BK ...	Version	Product data	Packaging
Order No.	1779870000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 10,	IEC: 200 V / 2.2 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4032248165193	180°, PUSH IN, Spring connection, Clamping range, max. : 1.5 mm ² ,	UL: 50 V / 5 A / AWG 24 - AWG 16	
Qty.	20 pc(s).	Box		

**OMNIMATE Signal - series BL/SL 3.50
SL 3.50/10/135F 3.2SN OR BX**

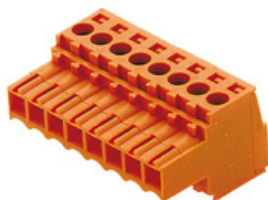
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Mating connector (conditionally pluggable)
BL-I/O 3.5/10 F PNP LED


Female plugs with spring connection (PUSH IN) as a plug-in connection level for decentralised I/O electronic components; used together with male headers in a 3.50-mm pitch.

General ordering data

Type	BL-I/O 3.50/10FP PNP LE ...	Version	Product data	Packaging
Order No.	1965960000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 10,	IEC: / 2.2 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4032248657728	180°, PUSH IN, Spring connection, Clamping range, max. : 1.5 mm ² ,	UL: 50 V / 5 A / AWG 24 - AWG 16	
Qty.	20 pc(s).	Box		
Type	BL-I/O 3.50/10FP PNP LE ...	Version	Product data	Packaging
Order No.	1789080000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 10,	IEC: / 2.2 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4032248208012	180°, PUSH IN, Spring connection, Clamping range, max. : 1.5 mm ² ,	UL: 50 V / 5 A / AWG 24 - AWG 16	
Qty.	20 pc(s).	Box		

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 3.50/10/180 SN BK BX	Version	Product data	Packaging
Order No.	1610200000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 10,	IEC: 320 V / 17 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4008190126940	180°, Clamping yoke connection, Clamping range, max. : 1.5 mm ² ,	UL: 300 V / 10 A / AWG 28 - AWG 14	
Qty.	48 pc(s).	Box		
Type	BL 3.50/10/180 SN OR BX	Version	Product data	Packaging
Order No.	1597440000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 10,	IEC: 320 V / 17 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4008190192013	180°, Clamping yoke connection, Clamping range, max. : 1.5 mm ² ,	UL: 300 V / 10 A / AWG 28 - AWG 14	
Qty.	48 pc(s).	Box		
Type	BL 3.50/10/180 SN OR BX ...	Version	Product data	Packaging
Order No.	1740681001	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 10,	IEC: 320 V / 17 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4008190961633	180°, Clamping yoke connection, Clamping range, max. : 1.5 mm ² ,	UL: 300 V / 10 A / AWG 28 - AWG 14	
Qty.	48 pc(s).	Box		
Type	BL 3.50/10/180 SN DKG ...	Version	Product data	Packaging
Order No.	1606570000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 10,	IEC: 320 V / 17 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4008190039851	180°, Clamping yoke connection, Clamping range, max. : 1.5 mm ² ,	UL: 300 V / 10 A / AWG 28 - AWG 14	
Qty.	48 pc(s).	Box		

**OMNIMATE Signal - series BL/SL 3.50
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Mating connector (conditionally pluggable)

BLIDC 3.5 SN



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	BLIDC 3.50/10/180 SN OR ...	Version	Product data	Packaging
Order No.	1750870000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 10,	IEC: 320 V / 6 A / 0.2 - 0.5 mm ²	Box
GTIN (EAN)	4032248146178	90°/270°, IDC terminal, Clamping range, max. : 0.5 mm ² , Box	UL: 300 V / 7 A / AWG 22 - AWG 20	
Qty.	50 pc(s).			

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Mating connector (fully pluggable)
BL-I/O 3.5/30


Female plugs with spring connection (PUSH IN) as a plug-in connection level for decentralised I/O electronic components; used together with male headers in a 3.50-mm pitch.

General ordering data

Type	BL-I/O 3.50/30F SN BK BX	Version	Product data	Packaging
Order No.	1779920000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 30,	IEC: 200 V / 2.2 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4032248165247	180°, PUSH IN, Spring connection, Clamping range, max.: 1.5 mm ² ,	UL: 50 V / 5 A / AWG 24 - AWG 16	
Qty.	20 pc(s).	Box		
Type	BL-I/O 3.50/30F SN LTGY ...	Version	Product data	Packaging
Order No.	1965910000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 30,	IEC: 200 V / 2.2 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4032248657575	180°, PUSH IN, Spring connection, Clamping range, max.: 1.5 mm ² ,	UL: 50 V / 5 A / AWG 24 - AWG 16	
Qty.	20 pc(s).	Box		
Type	BL-I/O 3.50/30F M SN BK ...	Version	Product data	Packaging
Order No.	1792330000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 30,	IEC: 200 V / 2.2 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4032248225330	180°, PUSH IN, Spring connection, Clamping range, max.: 1.5 mm ² ,	UL: 50 V / 5 A / AWG 24 - AWG 16	
Qty.	20 pc(s).	Box		

BL-I/O 3.5/10 NPN LED


Female plugs with spring connection (PUSH IN) as a plug-in connection level for decentralised I/O electronic components; used together with male headers in a 3.50-mm pitch.

General ordering data

Type	BL-I/O 3.50/10F NPN LED ...	Version	Product data	Packaging
Order No.	1965950000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 10,	IEC: / 2.2 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4032248657711	180°, PUSH IN, Spring connection, Clamping range, max.: 1.5 mm ² ,	UL: 50 V / 5 A / AWG 24 - AWG 16	
Qty.	20 pc(s).	Box		
Type	BL-I/O 3.50/10F NPN LED ...	Version	Product data	Packaging
Order No.	1938010000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 10,	IEC: / 2.2 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4032248610228	180°, PUSH IN, Spring connection, Clamping range, max.: 1.5 mm ² ,	UL: 50 V / 5 A / AWG 24 - AWG 16	
Qty.	20 pc(s).	Box		

**OMNIMATE Signal - series BL/SL 3.50
SL 3.50/10/135F 3.2SN OR BX**

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www.weidmueller.com

Mating connector (fully pluggable)
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 3.50/10/180LH SN BK ...	Version	Product data	Packaging
Order No.	2538090000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 10,	IEC: 320 V / 17.5 A / 0.14 - 1.5 mm ²	Box
GTIN (EAN)	4050118549812	180°, PUSH IN, Spring connection, Clamping range, max. : 1.5 mm ² ,	UL: 300 V / AWG 26 - AWG 16	
Qty.	42 pc(s).	Box		
Type	BLF 3.50/10/180LH SN OR ...	Version	Product data	Packaging
Order No.	2460030000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 10,	IEC: 320 V / 17.5 A / 0.14 - 1.5 mm ²	Box
GTIN (EAN)	4050118475449	180°, PUSH IN, Spring connection, Clamping range, max. : 1.5 mm ² ,	UL: 300 V / AWG 26 - AWG 16	
Qty.	42 pc(s).	Box		

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 3.50/10/180F SN BK BX	Version	Product data	Packaging
Order No.	1615860000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 10,	IEC: 320 V / 17 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4008190063269	180°, Clamping yoke connection, Clamping range, max. : 1.5 mm ² ,	UL: 300 V / 10 A / AWG 28 - AWG 14	
Qty.	42 pc(s).	Box		
Type	BL 3.50/10/180F SN OR BX	Version	Product data	Packaging
Order No.	1606720000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 10,	IEC: 320 V / 17 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4008190062422	180°, Clamping yoke connection, Clamping range, max. : 1.5 mm ² ,	UL: 300 V / 10 A / AWG 28 - AWG 14	
Qty.	42 pc(s).	Box		
Type	BL 3.50/10/180F SN DKGN ...	Version	Product data	Packaging
Order No.	1621210000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 10,	IEC: 320 V / 17 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4008190169633	180°, Clamping yoke connection, Clamping range, max. : 1.5 mm ² ,	UL: 300 V / 10 A / AWG 28 - AWG 14	
Qty.	42 pc(s).	Box		
Type	BL 3.50/10/180F SN OR B ...	Version	Product data	Packaging
Order No.	1701730000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 10,	IEC: 320 V / 17 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4008190908058	180°, Clamping yoke connection, Clamping range, max. : 1.5 mm ² ,	UL: 300 V / 10 A / AWG 28 - AWG 14	
Qty.	50 pc(s).	Box		

**OMNIMATE Signal - series BL/SL 3.50
SL 3.50/10/135F 3.2SN OR BX**

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Mating connector (fully pluggable)
BL-I/O 3.5/30 F PNP LED


Female plugs with spring connection (PUSH IN) as a plug-in connection level for decentralised I/O electronic components; used together with male headers in a 3.50-mm pitch.

General ordering data

Type	BL-I/O 3.50/30F PNP LED ...	Version	Product data	Packaging
Order No.	1789110000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 30,	IEC: / 2.2 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4032248208043	180°, PUSH IN, Spring connection, Clamping range, max.: 1.5 mm ² ,	UL: 50 V / 5 A / AWG 24 - AWG 16	
Qty.	20 pc(s).	Box		
Type	BL-I/O 3.50/30F PNP LED ...	Version	Product data	Packaging
Order No.	1965970000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 30,	IEC: / 2.2 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4032248657735	180°, PUSH IN, Spring connection, Clamping range, max.: 1.5 mm ² ,	UL: 50 V / 5 A / AWG 24 - AWG 16	
Qty.	20 pc(s).	Box		

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 3.50/10/180F SN OR ...	Version	Product data	Packaging
Order No.	2459470000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 10,	IEC: 320 V / 17.5 A / 0.14 - 1.5 mm ²	Box
GTIN (EAN)	4050118474381	180°, PUSH IN, Spring connection, Clamping range, max.: 1.5 mm ² ,	UL: 300 V / AWG 26 - AWG 16	
Qty.	42 pc(s).	Box		
Type	BLF 3.50/10/180F SN BK ...	Version	Product data	Packaging
Order No.	2459650000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 10,	IEC: 320 V / 17.5 A / 0.14 - 1.5 mm ²	Box
GTIN (EAN)	4050118475067	180°, PUSH IN, Spring connection, Clamping range, max.: 1.5 mm ² ,	UL: 300 V / AWG 26 - AWG 16	
Qty.	42 pc(s).	Box		

**OMNIMATE Signal - series BL/SL 3.50
SL 3.50/10/135F 3.2SN OR BX**

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Mating connector (fully pluggable)
BL-I/O 3.5/30 NPN LED


Female plugs with spring connection (PUSH IN) as a plug-in connection level for decentralised I/O electronic components; used together with male headers in a 3.50-mm pitch.

General ordering data

Type	BL-I/O 3.50/30F NPN LED ...	Version	Product data	Packaging
Order No.	1938020000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 30,	IEC: / 2.2 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4032248610235	180°, PUSH IN, Spring connection, Clamping range, max.: 1.5 mm ² ,	UL: 50 V / 5 A / AWG 24 - AWG 16	
Qty.	20 pc(s).	Box		
Type	BL-I/O 3.50/30F NPN LED ...	Version	Product data	Packaging
Order No.	1965980000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 30,	IEC: / 2.2 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4032248657742	180°, PUSH IN, Spring connection, Clamping range, max.: 1.5 mm ² ,	UL: 50 V / 5 A / AWG 24 - AWG 16	
Qty.	20 pc(s).	Box		

BL-I/O 3.5/10


Female plugs with spring connection (PUSH IN) as a plug-in connection level for decentralised I/O electronic components; used together with male headers in a 3.50-mm pitch.

General ordering data

Type	BL-I/O 3.50/10F SN LTGY ...	Version	Product data	Packaging
Order No.	1871690000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 10,	IEC: 200 V / 2.2 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4032248451197	180°, PUSH IN, Spring connection, Clamping range, max.: 1.5 mm ² ,	UL: 50 V / 5 A / AWG 24 - AWG 16	
Qty.	20 pc(s).	Box		
Type	BL-I/O 3.50/10F SN BK BX	Version	Product data	Packaging
Order No.	1779880000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 10,	IEC: 200 V / 2.2 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4032248165209	180°, PUSH IN, Spring connection, Clamping range, max.: 1.5 mm ² ,	UL: 50 V / 5 A / AWG 24 - AWG 16	
Qty.	20 pc(s).	Box		

**OMNIMATE Signal - series BL/SL 3.50
SL 3.50/10/135F 3.2SN OR BX**

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Mating connector (fully pluggable)
BL-I/O 3.5/10 F PNP LED


Female plugs with spring connection (PUSH IN) as a plug-in connection level for decentralised I/O electronic components; used together with male headers in a 3.50-mm pitch.

General ordering data

Type	BL-I/O 3.50/10F PNP LED ...	Version	Product data	Packaging
Order No.	1965940000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 10,	IEC: / 2.2 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4032248657605	180°, PUSH IN, Spring connection, Clamping range, max.: 1.5 mm ² ,	UL: 50 V / 5 A / AWG 24 - AWG 16	
Qty.	20 pc(s).	Box		
Type	BL-I/O 3.50/10F PNP LED ...	Version	Product data	Packaging
Order No.	1789090000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 10,	IEC: / 2.2 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4032248208029	180°, PUSH IN, Spring connection, Clamping range, max.: 1.5 mm ² ,	UL: 50 V / 5 A / AWG 24 - AWG 16	
Qty.	20 pc(s).	Box		

BLZF 3.5/180F


Female connectors with tension clamp system for connecting cables in 3.50 pitch. They provide space for labelling and can be coded.

General ordering data

Type	BLZF 3.50/10/180F SN OR ...	Version	Product data	Packaging
Order No.	1690960000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 10,	IEC: 320 V / 14.5 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4008190329471	180°, Tension-clamp connection, Clamping range, max.: 1.5 mm ² ,	UL: 300 V / 10 A / AWG 26 - AWG 14	
Qty.	50 pc(s).	Box		
Type	BLZF 3.50/10/180F SN BK ...	Version	Product data	Packaging
Order No.	1691190000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 10,	IEC: 320 V / 14.5 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4008190329730	180°, Tension-clamp connection, Clamping range, max.: 1.5 mm ² ,	UL: 300 V / 10 A / AWG 26 - AWG 14	
Qty.	50 pc(s).	Box		

**OMNIMATE Signal - series BL/SL 3.50
SL 3.50/10/135F 3.2SN OR BX**

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Mating connector (fully pluggable)
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 3.50/10/90F SN BK BX	Version	Product data	Packaging
Order No.	1639320000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 10,	IEC: 320 V / 12 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4008190276867	90°, Clamping yoke connection, Clamping range, max. : 1.5 mm ² , Box	UL: 300 V / 8 A / AWG 28 - AWG 14	
Qty.	42 pc(s).			
Type	BL 3.50/10/90F SN OR BX	Version	Product data	Packaging
Order No.	1639090000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 10,	IEC: 320 V / 12 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4008190276638	90°, Clamping yoke connection, Clamping range, max. : 1.5 mm ² , Box	UL: 300 V / 8 A / AWG 28 - AWG 14	
Qty.	42 pc(s).			

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 3.50/10/270F SN OR BX	Version	Product data	Packaging
Order No.	1640010000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 10,	IEC: 320 V / 12 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4008190277567	270°, Clamping yoke connection, Clamping range, max. : 1.5 mm ² ,	UL: 300 V / 8 A / AWG 28 - AWG 14	
Qty.	42 pc(s).	Box		
Type	BL 3.50/10/270F SN BK BX	Version	Product data	Packaging
Order No.	1640240000	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 10,	IEC: 320 V / 12 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4008190277819	270°, Clamping yoke connection, Clamping range, max. : 1.5 mm ² ,	UL: 300 V / 8 A / AWG 28 - AWG 14	
Qty.	42 pc(s).	Box		

OMNIMATE Signal - series BL/SL 3.50 SL 3.50/10/135F 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 SW	Version	Product data	Packaging
Order No.	1610100000	PCB plug-in connector, Accessories, Coding element, black, Number		Box
GTIN (EAN)	4008190187637	of poles: 1		
Qty.	100 pc(s).			
Type	BL SL 3.5 KO OR	Version	Product data	Packaging
Order No.	1693430000	PCB plug-in connector, Accessories, Coding element, orange, Number		Box
GTIN (EAN)	4008190867447	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 BK BX	Version	Product data
Order No.	1669300000	PCB plug-in connector, Accessories, Latches, black, Number of poles:	
GTIN (EAN)	4008190428471	1	
Qty.	100 pc(s).		

Data sheet

**OMNIMATE Signal - series BL/SL 3.50
SL 3.50/10/135F 3.2SN OR BX**

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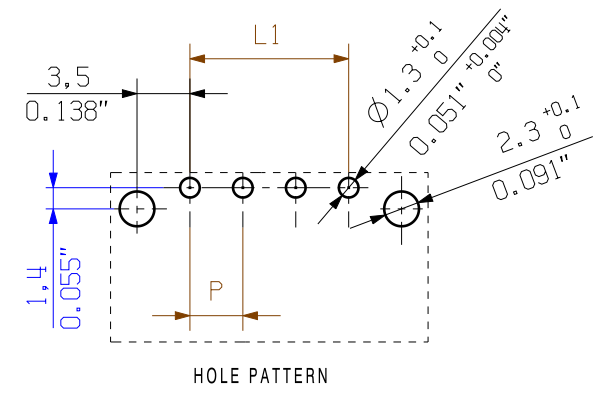
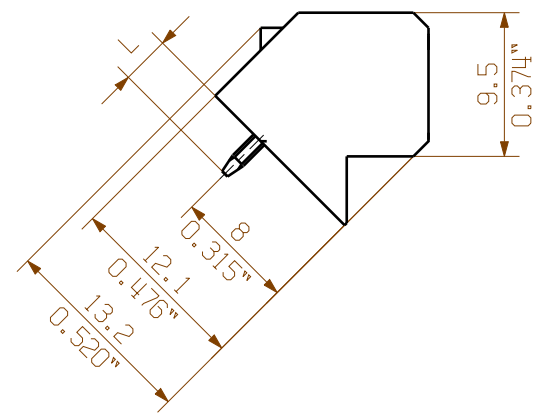
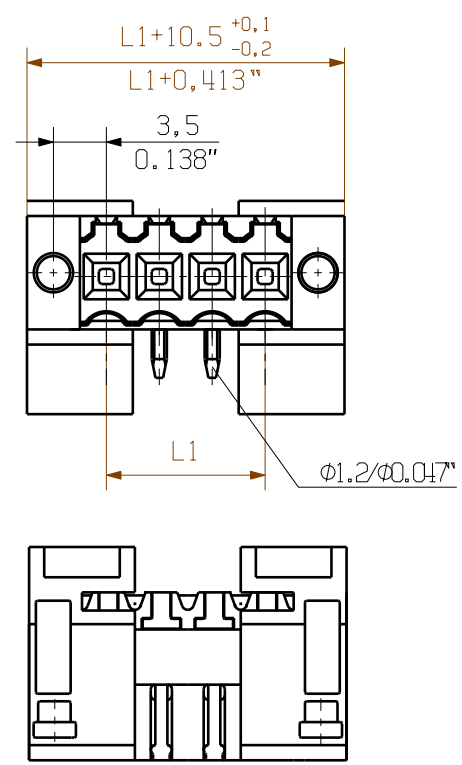
Accessories

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

MASSE OHNE TOLERANZ SIND KEINE PRUEFMASSE
 DIMS. WITHOUT TOLERANCE ARE NOT CONTROL DIMS.

DIE DEUTSCHE VERSION IST VERBINDLICH
 THE GERMAN VERSION IS BINDING

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P= RASTER / PITCH
 SHOWN SL3.5/04/135F

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.

STIFTLAENGE L	TOLERANZ
3,2	0,1 -0,3
4,5	0,1 -0,3

n	L1 [mm]	L1 [Inch]
24	80,50	3,169
23	77,00	3,031
22	73,50	2,894
21	70,00	2,756
20	66,50	2,618
19	63,00	2,480
18	59,50	2,343
17	56,00	2,205
16	52,50	2,067
15	49,00	1,929
14	45,50	1,791
13	42,00	1,654
12	38,50	1,516
11	35,00	1,378
10	31,50	1,240
9	28,00	1,102
8	24,50	0,965
7	21,00	0,827
6	17,50	0,689
5	14,00	0,551
4	10,50	0,413
3	7,00	0,276
2	3,50	0,138

METRIC TOLERANCES: X. = ±0.3 X.X = ±0.1 X.XX = ±0.05	49545/5 20.01.10 HELIS_MA 02	CAT.NO.:	
	MODIFICATION		C 21377 05 DRAWING NO. ISSUE NO.
	DATE: 02.11.2009 NAME: HELIS_MA	SHEET 02 OF 02 SHEETS	
SCALE: 2:1 SUPERSEDES:	CHECKED: 22.01.2010 NAME: HECKERT_M	SL 3.50/.../135(F)... STIFTLAENGE PIN HEADER	
APPROVED:	NAME: HECKERT_M	PRODUCT FILE: SL 3.50	7296

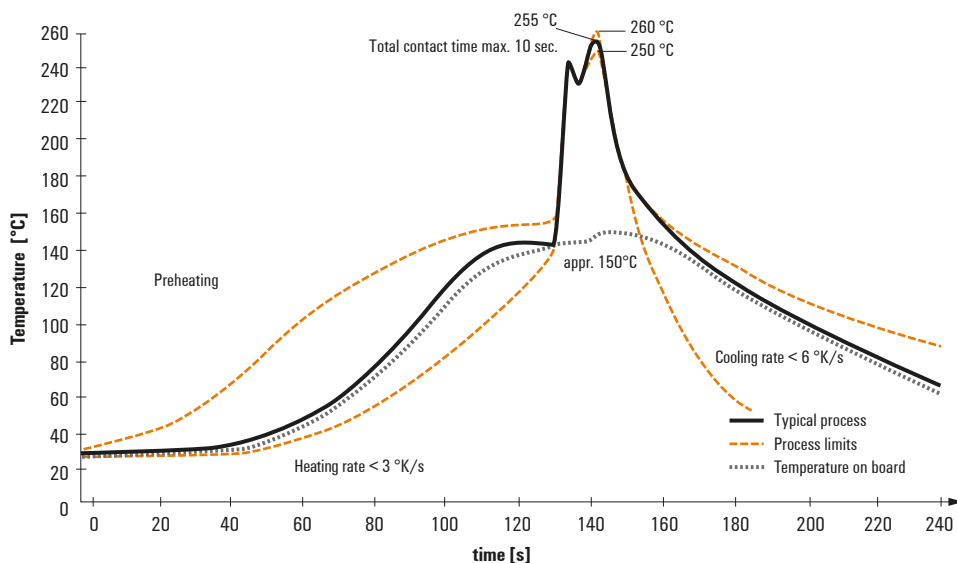
Recommended wave soldering profiles

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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.