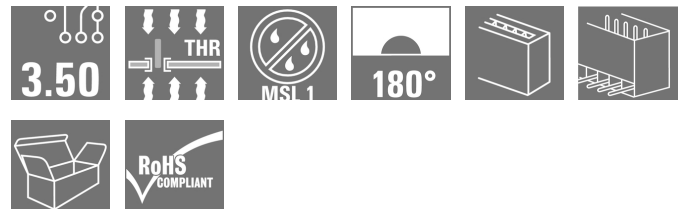
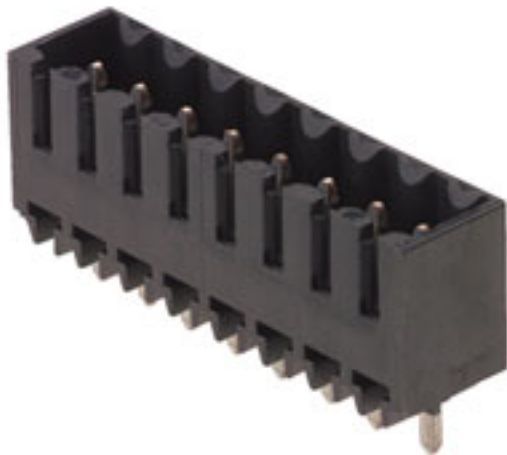


**OMNIMATE Signal - series BL/SL 3.50
SL-SMT 3.50/10/180G 3.2SN BK BX**

Weidmüller Interface GmbH & Co. KG
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www.weidmueller.com



High-temperature-resistant male header, 3.50 mm pitch.

- **Plugging direction parallel (90°), straight 180° or angled (135°) to PCB**
- **Housing variants: closed side (G), screw flange (F), solder flange (LF) or snap-on solder flange (RF)**
- **Optimised for the SMT process**
- **Pin length 3.2 mm universal for all soldering methods**
- **Pin length 1.5 mm optimised for reflow soldering methods**
- **Packed either in a box (BX) or tape-on-reel (RL)**
- **Male header can be coded**

General ordering data

Type	SL-SMT 3.50/10/180G 3.2SN BK BX
Order No.	1836990000
Version	PCB plug-in connector, male header, closed side, THT/THR solder connection, 3.50 mm, No. of poles: 10, 180°, Solder pin length (l): 3.2 mm, tinned, Black, Box
GTIN (EAN)	4032248345076
Qty.	50 pc(s).
Product data	IEC: 320 V / 15 A UL: 300 V / 10 A
Packaging	Box

OMNIMATE Signal - series BL/SL 3.50 SL-SMT 3.50/10/180G 3.2SN BK BX

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Technical data

Dimensions and weights

Net weight	3.18 g
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System specifications

Product family	OMNIMATE Signal - series BL/SL 3.50	Type of connection	Solder connection
Mounting onto the PCB	THT/THR solder connection	Pitch in mm (P)	3.5 mm
Pitch in inches (P)	0.138 inch	Outgoing elbow	180°
No. of poles	10	Number of solder pins per pole	1
Solder pin length (l)	3.2 mm	Solder pin length tolerance	0 / -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		Outside diameter of solder pad	2.3 mm
Template aperture diameter	2.1 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	4.50 mΩ
Can be coded	Yes	Plugging cycles	25
push-in force/pole	4 N	Withdrawal force per pole	4 N
Packaging	Box		

Material data

Insulating material	LCP GF	Colour	Black
Colour chart (similar)	RAL 9011	Insulating material group	IIIa
CTI	≥ 175	Insulation resistance	≥ 10 ⁸ Ω
Moisture Level (MSL)	1	UL 94 flammability rating	V-0
Contact material	CuSn	Contact surface	tinned
Layer structure of solder connection	2-3 µm Ni / 5-7 µm Sn	Layer structure of plug contact	2-3 µm Ni / 5-7 µm Sn
Storage temperature, min.	-25 °C	Storage temperature, max.	55 °C
Max. relative humidity during storage	80 %	Operating temperature, min.	-50 °C
Operating temperature, max.	100 °C	Temperature range, installation, min.	-30 °C
Temperature range, installation, max.	100 °C		

Rated data acc. to IEC

tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. no. of poles (Ta = 20°C)	15 A
Rated current, max. no. of poles (Ta = 20°C)	12 A	Rated current, min. no. of poles (Ta = 40°C)	13 A
Rated current, max. no. of poles (Ta = 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

**OMNIMATE Signal - series BL/SL 3.50
SL-SMT 3.50/10/180G 3.2SN BK BX**

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

Institute (CSA)



Certificate No. (CSA)

200039-1176845

Rated voltage (Use group B)	300 V
Rated current (use group B)	10 A
Reference to approval values	Specifications are maximum values, details - see approval certificate.

Rated voltage (use group D)	300 V
Rated current (use group D)	10 A

Rated data acc. to UL 1059

Institute (UR)



Certificate No. (UR)

E60693

Rated voltage (use group B)	300 V
Rated current (use group B)	10 A
Reference to approval values	Specifications are maximum values, details - see approval certificate.

Rated voltage (use group D)	300 V
Rated current (use group D)	10 A

Classifications

ETIM 3.0	EC001284	ETIM 4.0	EC002637
ETIM 5.0	EC002637	ETIM 6.0	EC002637
UNSPSC	30-21-18-10	eClass 5.1	27-26-07-04
eClass 6.2	27-26-07-04	eClass 7.1	27-44-04-02
eClass 8.1	27-44-04-02	eClass 9.0	27-44-04-02
eClass 9.1	27-44-04-02		

Notes

Notes

- Gold-plated contact surfaces on request
- Rated current related to rated cross-section & min. No. of poles.
- Diameter of solder eyelet D = 1.4+0.1mm
- Solder eyelet diameter D = 1.5 + 0.1 mm, from 9 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

The products are developed, manufactured and delivered according to the internationally recognised IPC-A-610 standard, category "permissible". More extensive demands on the products can be evaluated on request.

Approvals

Approvals



ROHS

Conform

Creation date February 19, 2018 7:11:04 AM CET

Catalogue status 09.02.2018 / We reserve the right to make technical changes.

OMNIMATE Signal - series BL/SL 3.50 SL-SMT 3.50/10/180G 3.2SN BK BX

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Technical data

Downloads

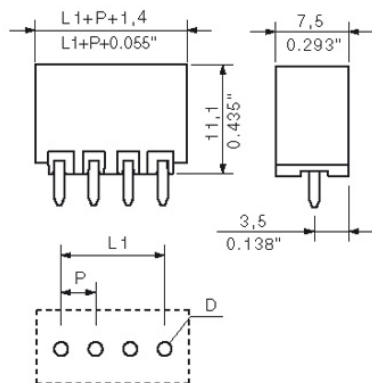
Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
Brochure/Catalogue	FL DRIVES EN MB SMT EN FL DRIVES DE MB DEVICE MANUF. EN CAT 2 PORTFOLIOGUIDE EN FL BUILDING SAFETY EN FL APPL LED LIGHTING EN FL INDUSTR.CONTROLS EN FL MACHINE SAFETY EN FL HEATING ELECTR EN FL APPL INVERTER EN FL_BASE_STATION_EN FL ELEVATOR EN FL POWER SUPPLY EN FL 72H SAMPLE SER EN PO OMNIMATE EN
Engineering Data	SL-SMT.zip
SMT white paper	Download Whitepaper

OMNIMATE Signal - series BL/SL 3.50 SL-SMT 3.50/10/180G 3.2SN BK BX

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Drawings

Dimensional drawing



OMNIMATE Signal - series BL/SL 3.50

SL-SMT 3.50/10/180G 3.2SN BK 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

Delivery status Type	Order No.	Version	GTIN (EAN)	Qty.	Product data
Discontinued BL 3.50/10/180 SN GY BX	1620530000	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, Clamping yoke connection, Clamping range, max. : 1.5 mm², Box	4008190158545	50 pc(s).	IEC: 320 V / 17 A / 0.2 - 1.5 mm² UL: 300 V / 10 A / AWG 28 - AWG 14
BL 3.50/10/180 SN DKGN BX	1606570000	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, Clamping yoke connection, Clamping range, max. : 1.5 mm², Box	4008190039851	48 pc(s).	IEC: 320 V / 17 A / 0.2 - 1.5 mm² UL: 300 V / 10 A / AWG 28 - AWG 14
BL 3.50/10/180 SN OR BX	1597440000	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, Clamping yoke connection, Clamping range, max. : 1.5 mm², Box	4008190192013	48 pc(s).	IEC: 320 V / 17 A / 0.2 - 1.5 mm² UL: 300 V / 10 A / AWG 28 - AWG 14
BL 3.50/10/180 SN BK BX	1610200000	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, Clamping yoke connection, Clamping range, max. : 1.5 mm², Box	4008190126940	48 pc(s).	IEC: 320 V / 17 A / 0.2 - 1.5 mm² UL: 300 V / 10 A / AWG 28 - AWG 14

OMNIMATE Signal - series BL/SL 3.50 SL-SMT 3.50/10/180G 3.2SN BK BX

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Mating connector (conditionally pluggable)

BL 3.50/10/180 SN OR BX PRT	1740681001	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, Clamping yoke connection, Clamping range, max.: 1.5 mm², Box	400819096163348 pc(s).	IEC: 320 V / 17 A / 0.2 - 1.5 mm² UL: 300 V / 10 A / AWG 28 - AWG 14	Box
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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

Delivery status Available until	Type	Order No.	Version	GTIN (EAN)	Qty.
Discontinued 2014-05-20T00:00:00+02:00	BL-I/O 3.50/10FP PNP LED SN LTGY BX	1965960000	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, PUSH IN, Clamping range, max.: 1.5 mm², Box	4032248657728	20 pc(s).
BL-I/O 3.50/10FP PNP LED SN BK BX	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, PUSH IN, Clamping range, max.: 1.5 mm², Box	4032248208012 20 pc(s).	IEC: / 2.2 A / 0.2 - 1.5 mm² UL: 50 V / 5 A / AWG 24 - AWG 16		Box
BL-I/O 3.50/10F PNP LED SN BK BX	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, PUSH IN, Clamping range, max.: 1.5 mm², Box	4032248208029 20 pc(s).	IEC: / 2.2 A / 0.2 - 1.5 mm² UL: 50 V / 5 A / AWG 24 - AWG 16		Box
BL-I/O 3.50/10F PNP LED SN LTGY BX	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, PUSH IN, Clamping range, max.: 1.5 mm², Box	4032248657605 20 pc(s).	IEC: / 2.2 A / 0.2 - 1.5 mm² UL: 50 V / 5 A / AWG 24 - AWG 16		Box

OMNIMATE Signal - series BL/SL 3.50

SL-SMT 3.50/10/180G 3.2SN BK 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	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
BL 3.50/10/270 SN BK BX	1639780000	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 270°, Clamping yoke connection, Clamping range, max. : 1.5 mm², Box	4008190277338 48 pc(s).		IEC: 320 V / 12 A / 0.2 - 1.5 mm² UL: 300 V / 8 A / AWG 28 - AWG 14	Box
BL 3.50/10/270 SN OR BX	1639550000	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 270°, Clamping yoke connection, Clamping range, max. : 1.5 mm², Box	4008190277109 48 pc(s).		IEC: 320 V / 12 A / 0.2 - 1.5 mm² UL: 300 V / 8 A / AWG 28 - AWG 14	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

Delivery status Available until	Type	Order No.	Version	GTIN (EAN)	Qty.
Discontinued 2014-05-20T00:00:00+02:00	BL-I/O 3.50/10F NPN LED SN LTGY BX	1965950000	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, PUSH IN, Clamping range, max. : 1.5 mm², Box	4032248657711	20 pc(s).
BL-I/O 3.50/10F NPN LED SN BK BX	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, PUSH	1938010000		IEC: / 2.2 A / 0.2 - 1.5 mm² UL: 50 V / 5 A / AWG 24 - AWG 16	Box

Creation date February 19, 2018 7:11:04 AM CET

Catalogue status 09.02.2018 / We reserve the right to make technical changes.

OMNIMATE Signal - series BL/SL 3.50 SL-SMT 3.50/10/180G 3.2SN BK BX

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Mating connector (conditionally pluggable)

IN, Clamping range, max. :
1.5 mm², 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	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
BL 3.50/10/90 SN OR BX	1638630000	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 90°, Clamping yoke connection, Clamping range, max. : 1.5 mm ² , Box	4008190276171	48 pc(s).	IEC: 320 V / 12 A / 0.2 - 1.5 mm ² UL: 300 V / 8 A / AWG 28 - AWG 14	Box
BL 3.50/10/90 SN BK BX	1638860000	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 90°, Clamping yoke connection, Clamping range, max. : 1.5 mm ² , Box	4008190276409	48 pc(s).	IEC: 320 V / 12 A / 0.2 - 1.5 mm ² UL: 300 V / 8 A / AWG 28 - AWG 14	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	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
BLZF 3.50/10/180 SN OR BX	1690270000	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, Tension clamp connection, Clamping range, max. : 1.5 mm ² , Box	4008190328764	50 pc(s).	IEC: 320 V / 14.5 A / 0.2 - 1.5 mm ² UL: 300 V / 10 A / AWG 26 - AWG 14	Box
BLZF 3.50/10/180 SN BK BX	1690500000	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, Tension clamp connection,	4008190329013	50 pc(s).	IEC: 320 V / 14.5 A / 0.2 - 1.5 mm ² UL: 300 V / 10 A / AWG 26 - AWG 14	Box

Creation date February 19, 2018 7:11:04 AM CET

OMNIMATE Signal - series BL/SL 3.50

SL-SMT 3.50/10/180G 3.2SN BK BX

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Mating connector (conditionally pluggable)

		Clamping range, max. : 1.5 mm ² , Box	
BLZF	1690730000	PCB plug-in connector, 4008190329242 50 pc(s).	IEC: 320 V / 14.5 A / 0.2 - 1.5 mm ² Box
3.50/10/180		female plug, 3.50 mm,	UL: 300 V / 10 A / AWG 26 - AWG 14
SN DKGN BX		No. of poles: 10, 180°, Tension clamp connection, Clamping range, max. : 1.5 mm ² , 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

Delivery status Available until	Type	Order No.	Version	GTIN (EAN)	Qty.
Discontinued 2016-04-08T00:00:00+02:00	BL 3.50/10/180F SN OR BX PRT	1701730000	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, Clamping yoke connection, Clamping range, max. : 1.5 mm ² , Box	4008190908058	50 pc(s).
BL	3.50/10/180F SN BK BX	1615860000	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, Clamping yoke connection, Clamping range, max. : 1.5 mm ² , Box	IEC: 320 V / 17 A / 0.2 - 1.5 mm ² UL: 300 V / 10 A / AWG 28 - AWG 14	Box
BL	3.50/10/180F SN OR BX	1606720000	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, Clamping yoke connection, Clamping range, max. : 1.5 mm ² , Box	IEC: 320 V / 17 A / 0.2 - 1.5 mm ² UL: 300 V / 10 A / AWG 28 - AWG 14	Box

OMNIMATE Signal - series BL/SL 3.50 SL-SMT 3.50/10/180G 3.2SN BK BX

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Mating connector (conditionally pluggable)

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	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
BL 3.50/10/270F SN OR BX	1640010000	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 270°, Clamping yoke connection, Clamping range, max. : 1.5 mm², Box	4008190277567 42 pc(s).		IEC: 320 V / 12 A / 0.2 - 1.5 mm² UL: 300 V / 8 A / AWG 28 - AWG 14	Box
BL 3.50/10/270F SN BK BX	1640240000	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 270°, Clamping yoke connection, Clamping range, max. : 1.5 mm², Box	4008190277819 42 pc(s).		IEC: 320 V / 12 A / 0.2 - 1.5 mm² UL: 300 V / 8 A / AWG 28 - AWG 14	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	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
BL-I/O 3.50/10FP SN BK BX	1779870000	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, PUSH IN, Clamping range, max. : 1.5 mm², Box	4032248165193 20 pc(s).		IEC: 200 V / 2.2 A / 0.2 - 1.5 mm² UL: 50 V / 5 A / AWG 24 - AWG 16	Box
BL-I/O 3.50/10FP SN LTGY BX	1871690000	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, PUSH IN, Clamping range, max. : 1.5 mm², Box	4032248451197 20 pc(s).		IEC: 200 V / 2.2 A / 0.2 - 1.5 mm² UL: 50 V / 5 A / AWG 24 - AWG 16	Box
Discontinued	2014-05-20T00:00:00+02:00	BL-I/O 3.50/10FP SN LTGY BX	1965890000	PCB plug-in connector, female	4032248657551	20 pc(s).

Creation date February 19, 2018 7:11:04 AM CET

OMNIMATE Signal - series BL/SL 3.50

SL-SMT 3.50/10/180G 3.2SN BK BX

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Mating connector (conditionally pluggable)

plug, 3.50 mm,
 No. of poles: 10,
 180°, PUSH IN,
 Clamping range,
 max. : 1.5 mm²,
 Box

BL-I/O 3.50/10F SN BK BX	1779880000	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, PUSH IN, Clamping range, max. : 1.5 mm ² , Box	4032248165209 20 pc(s).	IEC: 200 V / 2.2 A / 0.2 - 1.5 mm ² UL: 50 V / 5 A / AWG 24 - AWG 16	Box
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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	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
BL 3.50/10/180LH SN BK BX	1687960000	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, Clamping yoke connection, Clamping range, max. : 1.5 mm ² , Box	4008190853518 42 pc(s).		IEC: 320 V / 17 A / 0.2 - 1.5 mm ² UL: 300 V / 10 A / AWG 28 - AWG 14	Box
BL 3.50/10/180LH SN OR BX	1687730000	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, Clamping yoke connection, Clamping range, max. : 1.5 mm ² , Box	4008190853280 42 pc(s).		IEC: 320 V / 17 A / 0.2 - 1.5 mm ² UL: 300 V / 10 A / AWG 28 - AWG 14	Box

OMNIMATE Signal - series BL/SL 3.50
SL-SMT 3.50/10/180G 3.2SN BK BX

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

**OMNIMATE Signal - series BL/SL 3.50
SL-SMT 3.50/10/180G 3.2SN BK 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.

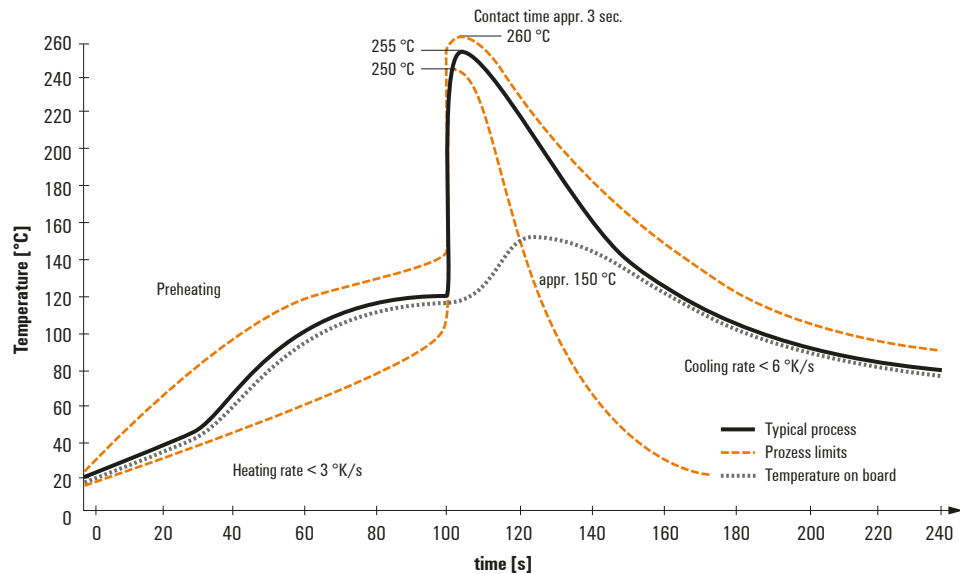
General ordering data

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
BL SL 3.5 KO OR	1693430000	PCB plug-in connector, Accessories, Coding element, Orange, No. of poles: 1	4008190867447	100 pc(s).	UL:	Box
BL SL 3.5 KO SW	1610100000	PCB plug-in connector, Accessories, Coding element, Black, No. of poles: 1	4008190187637	100 pc(s).	UL:	Box

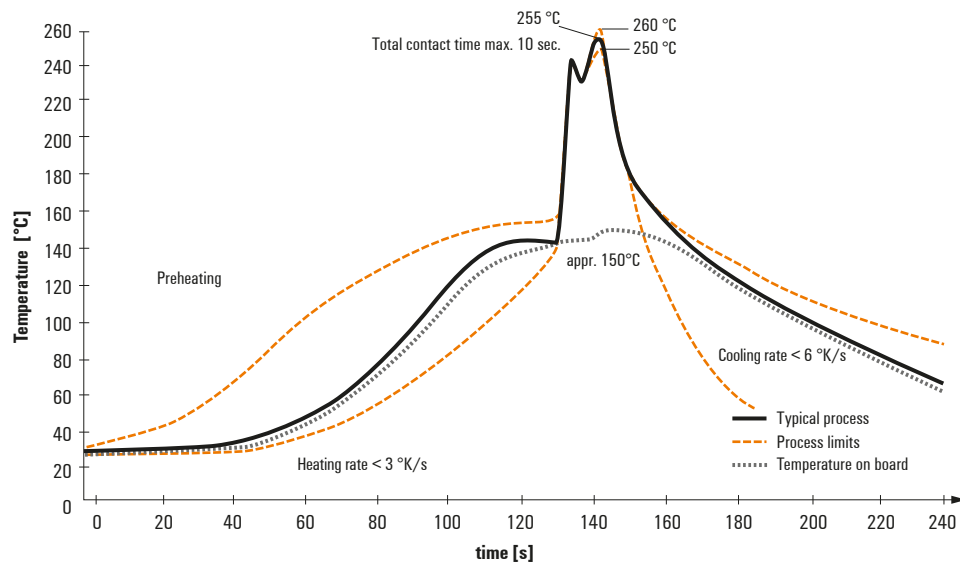
Recommended wave soldering profiles

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

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:

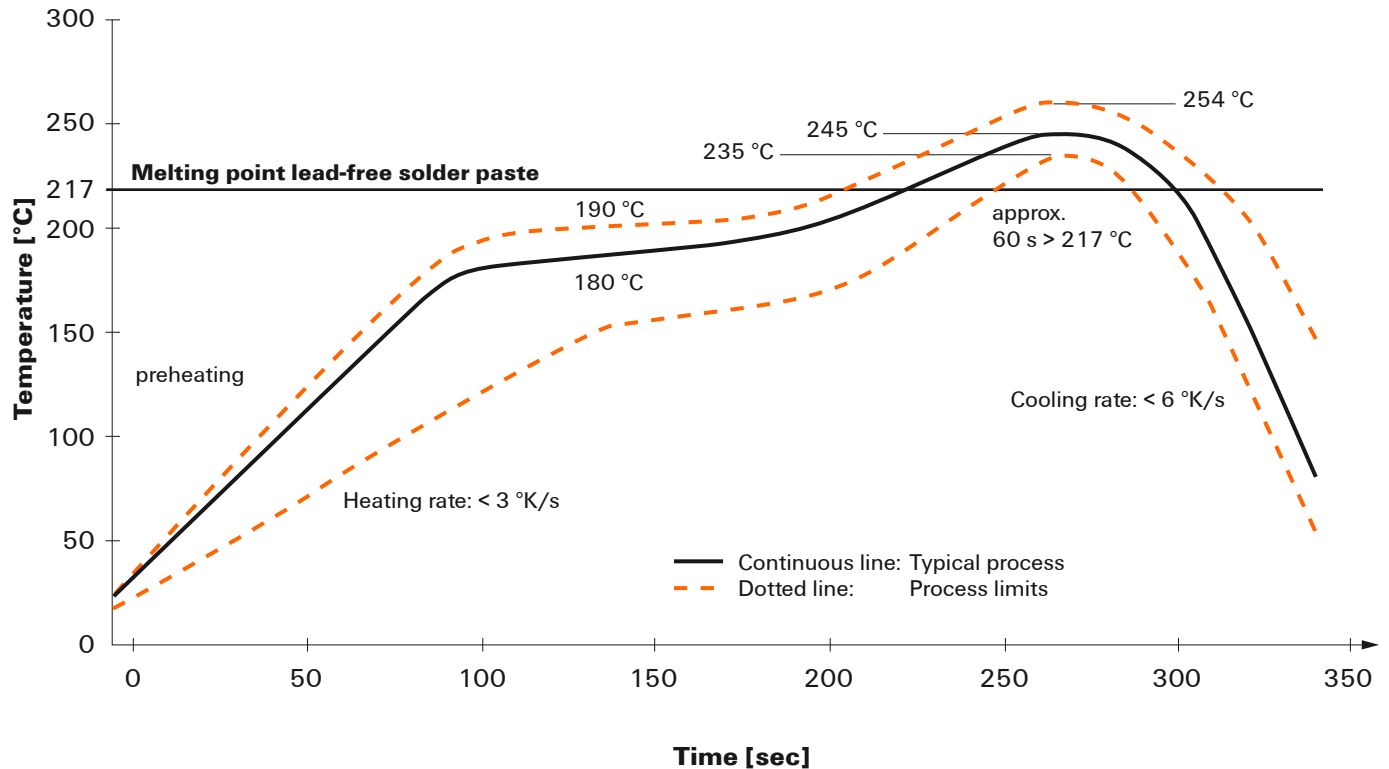
- PCB thickness
- Proportion of Cu in the layers
- Single/double-sided assembly
- Product range
- Heating and cooling rates

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.

We reserve the right to make technical changes.

Recommended reflow soldering profile

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 16
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Reflow soldering profile

The perfect soldering profile for SMT Surface Mount Technology is one the most exiting question in SMT production. But there are more than one correct answer: The diagram of temperature-on-time is related to processing features of solder paste and to maximum load of components.

We have to consider the following parameters:

- Time for pre heating
- Maximum temperature
- Time above melting point
- Time for cooling
- Maximum heating rate
- Maximum cooling rate

We recommend a typical solder profile with associated process limits. With preheating components and board are prepared smoothly for the solder phase. Heating rate is typically $\leq +3\text{K/s}$. In parallel the solder paste is 'activated'. The time above melting point of 217°C the paste gets liquid and components and boards begin to connect. The maximum temperature of 245°C to 254°C should stay between 10 and 40 seconds. In the cooling phase at $\geq -6\text{K/s}$ solder is cured. Board and components cool down while avoiding cold cracks.