OMNIMATE Signal - series BL/SL 5.00
SLD 5.00/14/90G 3.2 SN OR BX

Weidmüller Interface GmbH & Co. KG
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Germany
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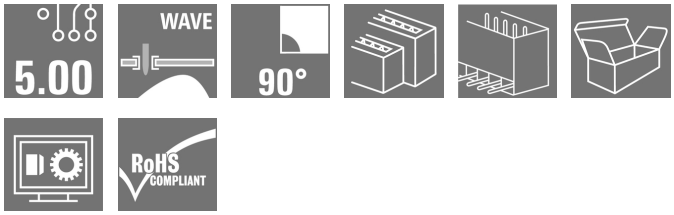
Fax: +49 5231 14-292083
www.weidmueller.com

Similar to illustration



2-tier male header with parallel pin arrangement. The solder pin length is optimised for wave flow soldering. The pin headers provide space for labelling and can be coded.

General ordering data

Type	SLD 5.00/14/90G 3.2 SN OR BX
Order No.	1614400000
Version	PCB plug-in connector, male header, closed side, THT solder connection, 5.00 mm, Number of poles: 14, 90°, Solder pin length (l): 3.2 mm, tinned, orange, Box
GTIN (EAN)	4008190029876
Qty.	20 pc(s).
Product data	IEC: 400 V / 11 A UL: 300 V / 10 A
Packaging	Box

Creation date May 3, 2020 9:20:22 PM CEST

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Technical data

Dimensions and weights

Width	36.96 mm	Width (inches)	1.455 inch
Height	31.25 mm	Height (inches)	1.23 inch
Height of lowest version	28.05 mm	Depth	22 mm
Depth (inches)	0.866 inch	Net weight	14.5 g

System specifications

Product family	OMNIMATE Signal - series BL/SL 5.00	Type of connection	Board connection
Mounting onto the PCB	THT solder connection	Pitch in mm (P)	5 mm
Pitch in inches (P)	0.197 inch	Outgoing elbow	90°
Number of poles	14	Number of solder pins per pole	1
Solder pin length (l)	3.2 mm	Solder pin length tolerance	+0.1 / -0.2 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)	1.3 mm
Solder eyelet hole diameter tolerance (D)	+ 0,1 mm	L1 in mm	30 mm
L1 in inches	1.181 inch	Number of rows	2
Pin series quantity	2	Touch-safe protection acc. to DIN VDE 57 106	Safe from back-of-hand touch
Volume resistance	≤ 5mΩ	Can be coded	Yes
Plugging cycles	25	Plugging force/pole, max.	3 N
Pulling force/pole, max.	3 N		

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	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.	-25 °C	Temperature range, installation, max.	100 °C

Rated data acc. to IEC

tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. number of poles (Tu=20°C)	11 A
Rated current, max. number of poles (Tu=20°C)	8.5 A	Rated current, min. number of poles (Tu=40°C)	9.5 A
Rated current, max. number of poles (Tu=40°C)	7 A	Rated voltage for surge voltage class / pollution degree II/2	400 V
Rated voltage for surge voltage class / pollution degree III/2	320 V	Rated voltage for surge voltage class / pollution degree III/3	250 V
Rated impulse voltage for surge voltage class/ pollution degree II/2	4 kV	Rated impulse voltage for surge voltage class/ pollution degree III/2	4 kV
Rated impulse voltage for surge voltage class/ contamination degree III/3	4 kV	Short-time withstand current resistance	1 x 1s with 120 A

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Technical data

Rated data acc. to CSA

Institute (CSA)		Certificate No. (CSA)	200039-1121690
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	1 mm
VPE width	1 mm	VPE height	1 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

Notes

Notes	• Additional colours on request • Rated current related to rated cross-section & min. No. of poles. • Spacing between rows: see hole layout • 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.

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Technical data

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	WSCAD
Engineering Data	SLD.zip STEP

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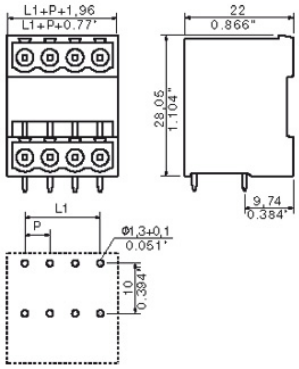
Drawings

Dimensional drawing



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Mating connector (fully pluggable)

BLZP 5.00HC/90 SN

Female plugs with clamping-yoke connection for connecting wires with a right-angle (90° or 270°) outlet direction. The female connectors provide space for labelling and can be coded. Fastened by means of a flange or release latch. They also provide an integrated plus/minus screw, protection against faulty insertion of the wire, and they are delivered with open clamping yokes. HC = High Current.

General ordering data

Type	BLZP 5.00HC/07/90 SN BK ...	Version	Product data	Packaging
Order No.	1958600000	PCB plug-in connector, female plug, 5.00 mm, Number of poles: 7,	IEC: 400 V / 23 A / 0.2 - 4 mm²	Box
GTIN (EAN)	4032248812936	90°, Clamping yoke connection, Clamping range, max. : 4 mm², Box	UL: 300 V / 20 A / AWG 26 - AWG 12	
Qty.	48 pc(s).			
Type	BLZP 5.00HC/07/90 SN OR ...	Version	Product data	Packaging
Order No.	1958250000	PCB plug-in connector, female plug, 5.00 mm, Number of poles: 7,	IEC: 400 V / 23 A / 0.2 - 4 mm²	Box
GTIN (EAN)	4032248637119	90°, Clamping yoke connection, Clamping range, max. : 4 mm², Box	UL: 300 V / 20 A / AWG 26 - AWG 12	
Qty.	48 pc(s).			

BLF 5.00HC/180 SN

Just as reliable as the millionfold proven original and featuring innovative details:
The BLF 5.00HC PUSH IN version of the BLZ 5.00HC female connector features a new connection system and a more compact design. Weidmüller's innovative PUSH IN spring connection system stands for the future of easy and tool-free wire connection. HC = High Current.
In terms of versatility, the BLF 5.00HC offers just as much as the older versions:

- 3 tested-and-proven wire outlet directions provide the usual flexibility for application-specific design
- 4 flange variations and the patented release latch allow the locking concept to be based on the requirements of the user

General ordering data

Type	BLF 5.00HC/07/180 SN BK ...	Version	Product data	Packaging
Order No.	1017730000	PCB plug-in connector, female plug, 5.00 mm, Number of poles: 7,	IEC: 400 V / 23 A / 0.2 - 2.5 mm²	Box
GTIN (EAN)	4032248728794	180°, PUSH IN, Spring connection, Clamping range, max. : 3.31 mm²,	UL: 300 V / 18.5 A / AWG 26 - AWG	
Qty.	48 pc(s).	Box	12	
Type	BLF 5.00HC/07/180 SN OR ...	Version	Product data	Packaging
Order No.	1017920000	PCB plug-in connector, female plug, 5.00 mm, Number of poles: 7,	IEC: 400 V / 23 A / 0.2 - 2.5 mm²	Box
GTIN (EAN)	4032248728626	180°, PUSH IN, Spring connection, Clamping range, max. : 3.31 mm²,	UL: 300 V / 18.5 A / AWG 26 - AWG	
Qty.	48 pc(s).	Box	12	

OMNIMATE Signal - series BL/SL 5.00
SLD 5.00/14/90G 3.2 SN OR BX

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Mating connector (fully pluggable)

BLZP 5.00HC/270 SN

Female plugs with clamping-yoke connection for connecting wires with a right-angle (90° or 270°) outlet direction. The female connectors provide space for labelling and can be coded. Fastened by means of a flange or release latch. They also provide an integrated plus/minus screw, protection against faulty insertion of the wire, and they are delivered with open clamping yokes. HC = High Current.

General ordering data

Type	BLZP 5.00HC/07/270 SN B ...	Version	Product data	Packaging
Order No.	1959050000	PCB plug-in connector, female plug, 5.00 mm, Number of poles: 7,	IEC: 400 V / 23 A / 0.2 - 4 mm²	Box
GTIN (EAN)	4032248637980	90°, Clamping yoke connection, Clamping range, max. : 4 mm², Box	UL: 300 V / 20 A / AWG 26 - AWG 12	
Qty.	48 pc(s).			
Type	BLZP 5.00HC/07/270 SN O ...	Version	Product data	Packaging
Order No.	1958820000	PCB plug-in connector, female plug, 5.00 mm, Number of poles: 7,	IEC: 400 V / 23 A / 0.2 - 4 mm²	Box
GTIN (EAN)	4032248637652	90°, Clamping yoke connection, Clamping range, max. : 4 mm², Box	UL: 300 V / 20 A / AWG 26 - AWG 12	
Qty.	48 pc(s).			

BLF 5.00HC/90 SN

Just as reliable as the millionfold proven original and featuring innovative details:
The BLF 5.00HC PUSH IN version of the BLZ 5.00HC female connector features a new connection system and a more compact design. Weidmüller's innovative PUSH IN spring connection system stands for the future of easy and tool-free wire connection. HC = High Current.
In terms of versatility, the BLF 5.00HC offers just as much as the older versions:

- 3 tested-and-proven wire outlet directions provide the usual flexibility for application-specific design
- 4 flange variations and the patented release latch allow the locking concept to be based on the requirements of the user

General ordering data

Type	BLF 5.00HC/07/90 SN OR ...	Version	Product data	Packaging
Order No.	1980220000	PCB plug-in connector, female plug, 5.00 mm, Number of poles: 7,	IEC: 400 V / 24 A / 0.2 - 2.5 mm²	Box
GTIN (EAN)	4032248675302	90°, PUSH IN, Spring connection, Clamping range, max. : 3.31 mm²,	UL: 300 V / 18.5 A / AWG 26 - AWG	
Qty.	48 pc(s).	Box	12	
Type	BLF 5.00HC/07/90 SN BK ...	Version	Product data	Packaging
Order No.	1979320000	PCB plug-in connector, female plug, 5.00 mm, Number of poles: 7,	IEC: 400 V / 24 A / 0.2 - 2.5 mm²	Box
GTIN (EAN)	4032248674527	90°, PUSH IN, Spring connection, Clamping range, max. : 3.31 mm²,	UL: 300 V / 18.5 A / AWG 26 - AWG	
Qty.	48 pc(s).	Box	12	

OMNIMATE Signal - series BL/SL 5.00
SLD 5.00/14/90G 3.2 SN OR BX

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Mating connector (fully pluggable)

BLZP 5.00HC/180 SN

Female plug with clamping-yoke screw system for connecting wires with straight (180°) outlet direction. The female connectors provide space for labelling and can be coded. Fastened by means of a flange or release latch. The also provide an integrated plus/minus screw, protection against faulty insertion of the wire, and they are delivered with open clamping yokes. HC = High Current.

General ordering data

Type	BLZP 5.00HC/07/180 SN B ...	Version	Product data	Packaging
Order No.	1955520000	PCB plug-in connector, female plug, 5.00 mm, Number of poles: 7,	IEC: 400 V / 23 A / 0.2 - 4 mm²	Box
GTIN (EAN)	4032248634019	180°, Clamping yoke connection, Clamping range, max. : 4 mm², Box	UL: 300 V / 20 A / AWG 26 - AWG 12	
Qty.	48 pc(s).			

Type	BLZP 5.00HC/07/180 SN O ...	Version	Product data	Packaging
Order No.	1954440000	PCB plug-in connector, female plug, 5.00 mm, Number of poles: 7,	IEC: 400 V / 23 A / 0.2 - 4 mm²	Box
GTIN (EAN)	4032248633159	180°, Clamping yoke connection, Clamping range, max. : 4 mm², Box	UL: 300 V / 20 A / AWG 26 - AWG 12	
Qty.	48 pc(s).			

BLZ 5.00/180

Female plugs with clamping-yoke screw for wire connection with straight (180°) outlet direction. The female plugs provide space for labelling and can be coded.

General ordering data

Type	BLZ 5.00/07/180 SN DKGN ...	Version	Product data	Packaging
Order No.	1646870000	PCB plug-in connector, female plug, 5.00 mm, Number of poles: 7,	IEC: 400 V / 19 A / 0.5 - 2.5 mm²	Box
GTIN (EAN)	4008190288112	180°, Clamping yoke connection, Clamping range, max. : 3.31 mm²,	UL: 300 V / 15 A / AWG 26 - AWG 12	
Qty.	50 pc(s).	Box		

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Mating connector (fully pluggable)

BLZ 5.00/270

Female plugs with clamping-yoke screw for wire connection with 270° outlet direction. The female plugs provide space for labelling and can be coded.

General ordering data

Type	BLZ 5.00/07/270 SN DKGN ...	Version	Product data	Packaging
Order No.	1649940000	PCB plug-in connector, female plug, 5.00 mm, Number of poles: 7,	IEC: 400 V / 15 A / 0.5 - 2.5 mm²	Box
GTIN (EAN)	4008190296520	270°, Clamping yoke connection, Clamping range, max. : 3.31 mm²,	UL: 300 V / 10 A / AWG 26 - AWG 12	
Qty.	50 pc(s).	Box		

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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	BLZ/SL KO BK BX	Version	Product data	Packaging
Order No.	1545710000	PCB plug-in connector, Accessories, Coding element, black, Number		Box
GTIN (EAN)	4008190087142	of poles: 1		
Qty.	50 pc(s).			

Type	BLZ/SL KO OR BX	Version	Product data	Packaging
Order No.	1573010000	PCB plug-in connector, Accessories, Coding element, orange, Number		Box
GTIN (EAN)	4008190048396	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	SL AT OR	Version	Product data	Packaging
Order No.	1598300000	PCB plug-in connector, Accessories, Spacer, orange, Number of poles:		Box
GTIN (EAN)	4008190189266	1		
Qty.	100 pc(s).			

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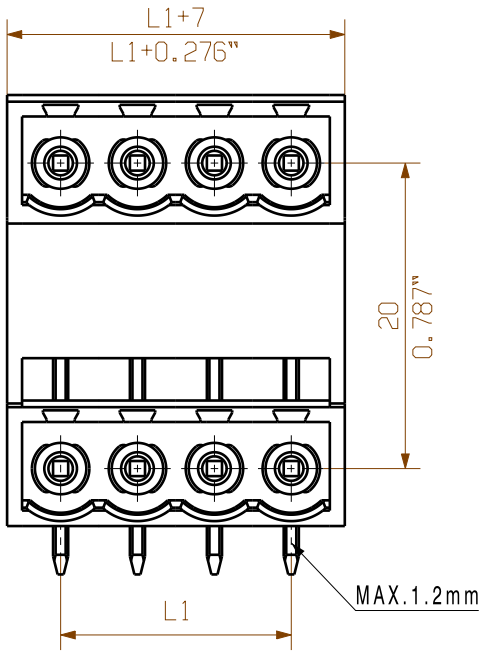
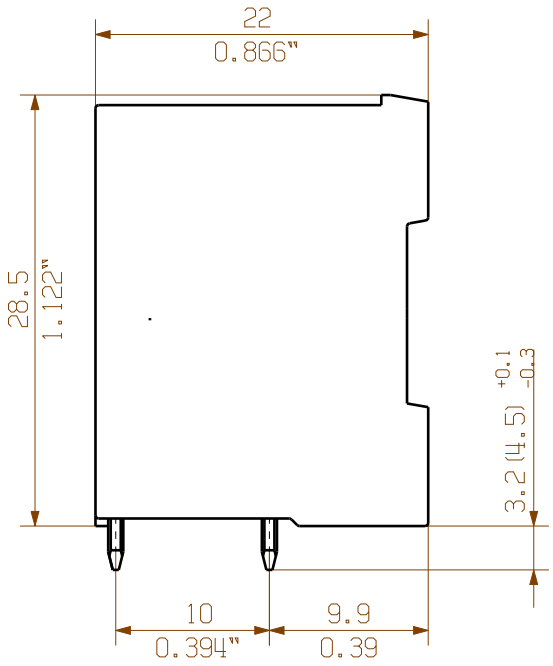
Accessories

Type	SL AT SW	Version	Product data	Packaging
Order No.	1770240000	PCB plug-in connector, Accessories, Spacer, black, Number of poles: 1		Box
GTIN (EAN)	4032248117710			
Qty.	100 pc(s).			

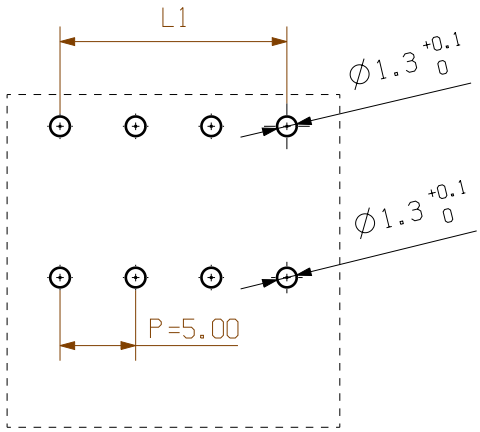
MASSE OHNE TOLERANZ SIND KEINE PRUEFMASSE
DIMS. WITHOUT TOLERANCE ARE NOT CONTROL DIMS.

DIE DEUTSCHE VERSION IST VERBINDLICH
THE GERMAN VERSION IS BINDING





HOLE PATTERN

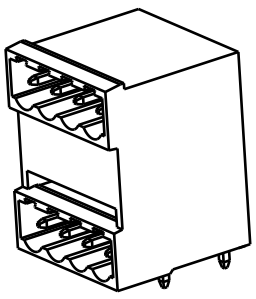


For the mounting of PCBs, it should be noted that the rated data relates only to the PCB components alone.
The neccessary creepage and clearance paths must be observed in connection with the respective applicant in accordance to IEC 664 / VDE 0110.
The current-carrying capacity and pitch tolerance is to be determined according to DIN IEC 326 part 3 very fine.

Weidmüller PCB components are tested to the DIN EN 61984 standard, and are valid for its field of application.
Provided that the components are used to the intended purpose, all requirements with respect to the occuring of electrical, mechanical, thermic and corrosive stress will be satisfied.

SHOWN:SLD 5.00/08/90G

M 1/1



n	L1 [mm]	L1 [Inch]
48	115,00	4,531
46	110,00	4,334
44	105,00	4,137
42	100,00	3,940
40	95,00	3,743
38	90,00	3,546
36	85,00	3,349
34	80,00	3,152
32	75,00	2,955
30	70,00	2,758
28	65,00	2,561
26	60,00	2,364
24	55,00	2,167
22	50,00	1,970
20	45,00	1,773
18	40,00	1,576
16	35,00	1,379
14	30,00	1,182
12	25,00	0,985
10	20,00	0,788
8	15.00	0,591
6	10,00	0,394
4	5,00	0,197

RoHS COMPLIANT

METRIC TOLERANCES:
X. = ±0.3
X.X = ±0.1
X.XX = ±0.05

51665/0
05.10.10 HERTEL_S 01
MODIFICATION

CAT.NO.:.

Weidmüller

C 19817 09
DRAWING NO. ISSUE NO.
SHEET 01 OF 01 SHEETS

	DATE	NAME
DRAWN	15.12.2009	HELIS_MA
RESPONSIBLE		HERTEL_S
CHECKED	08.10.2010	HECKERT_M
APPROVED		HECKERT_M

SCALE: 2/1
SUPERSEDES: .

SLD 5.00/../90G....
STIFTLEISTE
PIN HEADER

PRODUCT FILE: SLD 5.00 7303

WEITERGABE SOWIE VERVIELFAELTIGUNG DIESES DOKUMENTS, VERWERTUNG UND MITTEILUNG SEINES INHALTS SIND VERBOTEN, SOWEIT NICHT AUSDRUECKLICH GESTATTET. ZUWIDERHANDLUNGEN VERPFLICHTEN ZU SCHADENERSATZ. ALLE RECHTE FUER DEN FALL DER PATENT-, GEBRAUCHSMUSTER- ODER GESCHMACKSMUSTEREINTRAGUNG VORBEHALTEN.
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Wave Solder Profile

Recommended wave solderding profiles

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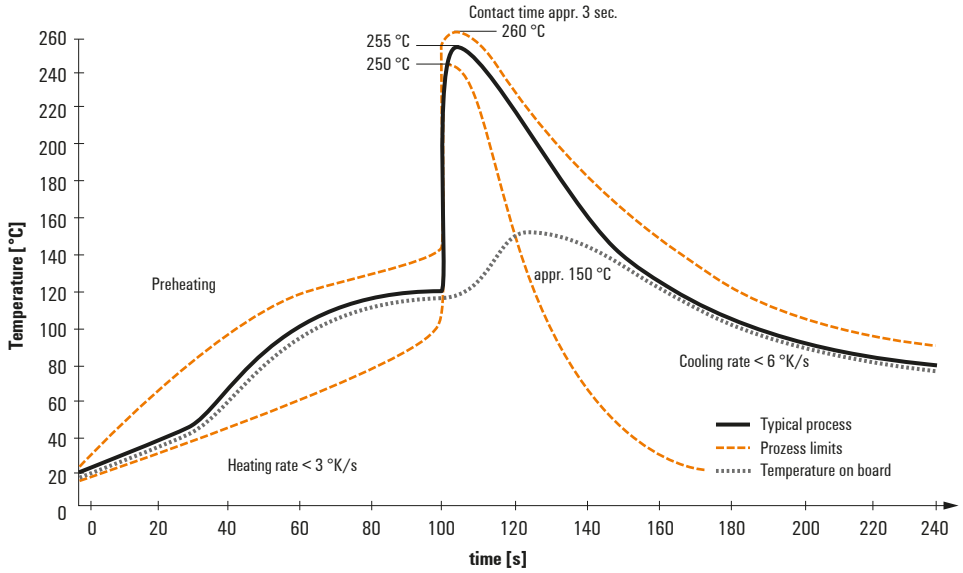
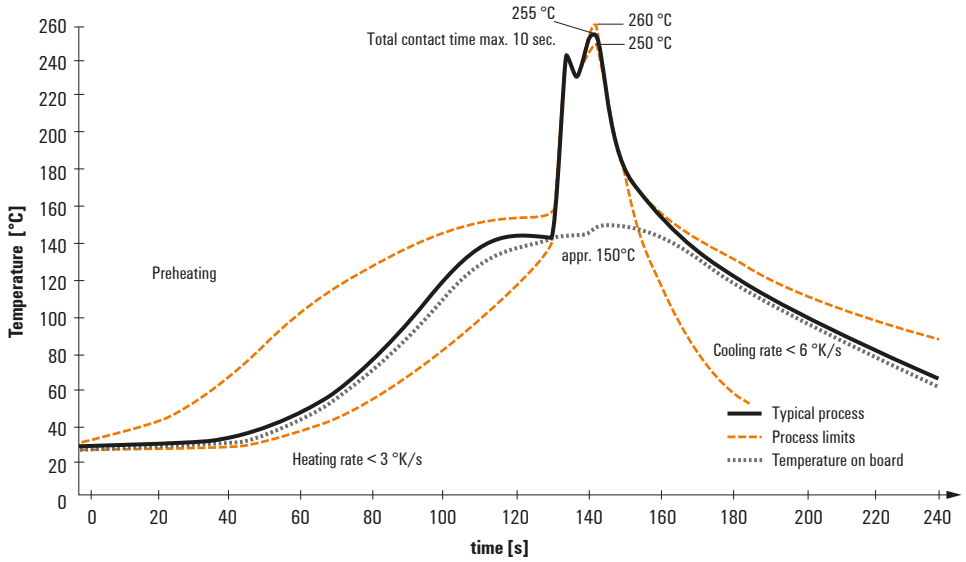
Single Wave:



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.

We reserve the right to make technical changes.