

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold

Germany

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Similar to illustration

Male connectors with 135° outlet direction. The solder pin length is optimised for wave flow soldering. The pin headers provide space for labelling and can be coded.

General ordering data

Туре	SL 5.08/24/135 3.2SN OR BX
Order No.	<u>1603280000</u>
Version	PCB plug-in connector, male header, open side, THT solder connection, 5.08 mm, Number of poles: 24, 135°, Solder pin length (I): 3.2 mm, tinned, orange, Box
GTIN (EAN)	4008190118914
Qty.	20 pc(s).
Product data	IEC: 400 V / 17 A UL: 300 V / 15 A
Packaging	Вох

Creation date May 3, 2020 10:23:58 PM CEST



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Technical data

Dimensions and weights

Width	121.92 mm	Width (inches)	4.8 inch
Height	15.5 mm	Height (inches)	0.61 inch
Height of lowest version	12.3 mm	Depth	13.13 mm
Depth (inches)	0.517 inch	Net weight	9.25 g

System specifications

Product family	OMNIMATE Signal - series BL/SL 5.08	Type of connection	Board connection
Mounting onto the PCB	THT solder connection	Pitch in mm (P)	5.08 mm
Pitch in inches (P)	0.2 inch	Outgoing elbow	135°
Number of poles	24	Number of solder pins per pole	1
Solder pin length (I)	3.2 mm	Solder pin length tolerance	+0.1 / -0.3 mm
Tolerance of solder pin position	± 0.20 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 (I	D)+ 0,1 mm	L1 in mm	116.84 mm
L1 in inches	4.6 inch	Number of rows	1
Pin series quantity	_	Touch-safe protection acc. to DIN VDE	finger-safe plugged/ back-
	1	57 106	of-hand-safe unplugged
Volume resistance	≤ 5mΩ	Can be coded	Yes
Plugging cycles	25		

Material data

Insulating material	PBT	Colour	orange
Colour chart (similar)	RAL 2000	Insulating material group	Illa
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.	-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)	17 A
Rated current, max. number of poles (Tu=20°C)	13 A	Rated current, min. number of poles (Tu=40°C)	15 A
Rated current, max. number of poles (Tu=40°C)	11 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	3 x 1s with 120 A



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148 mm

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Technical data

Rated data acc. to CSA

VPE width

Institute (CSA)	SP:	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)	15 A	Rated current (Use group D / CSA)	10 A
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

	see approval certificate.		
Rated data acc. to UL 1059			
Institute (UR)	<i>717</i>	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)	15 A	Rated current (Use group D / UL 1059)	10 A
Reference to approval values	Specifications are maximum values, details - see approval certificate.		
Packing			
Packaging	Вох	VPE length	42 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

VPE height

Notes	
Nata	Additional colours on sources
Notes	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.

128 mm



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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
, 0	MB DEVICE MANUF. EN
	FL DRIVES DE
	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	<u>WSCAD</u>
Engineering Data	<u>SL.zip</u>



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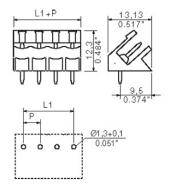
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Drawings

Dimensional drawing





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Mating connector (conditionally pluggable)

BLT 5.08HC/180B



Female plugs with TOP screw connection system for connecting wires with straight 180° outlet direction. The female connectors provide space for labelling and can be coded. HC = High Current.

Туре	BLT 5.08HC/24/180B SN O	Version	Product data	Packaging
Order No.	<u>1504060000</u>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 24,	IEC: 400 V / 27 A / 0.2 - 2.5 mm ²	Box
GTIN (EAN)	4008190072971	180°, TOP connection, Clamping range, max. : 2.5 mm², Box	UL: 300 V / 17 A / AWG 26 - AWG 14	4
Qty.	12 pc(s).			



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Mating connector (fully pluggable)

BLZP 5.08HC/225 SN



Clamping-yoke connection with right-angled (90° or 270°) or angled (225°) 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

Туре	BLZP 5.08HC/24/225 SN O	Version	Product data	Packaging
Order No.	<u>1946480000</u>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 24,	IEC: 400 V / 17.5 A / 0.2 - 4 mm ²	Box
GTIN (EAN)	4032248622252	225°, Clamping yoke connection, Clamping range, max. : 4 mm², Box	UL: 300 V / 15 A / AWG 26 - AWG 12	2
Qty.	12 pc(s).			
Туре	BLZP 5.08HC/24/225 SN B	Vi	B 1 - 1 -	D
, ypc	BLZF 5.06HC/24/225 3N B	Version	Product data	Packaging
Order No.	1946780000	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 24,	IEC: 400 V / 17.5 A / 0.2 - 4 mm ²	Box
			IEC: 400 V / 17.5 A / 0.2 - 4 mm ²	Вох

BLZP 5.08HC/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.

Туре	BLZP 5.08HC/24/270 SN O	Version	Product data	Packaging
Order No.	<u>1949010000</u>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 24,	IEC: 400 V / 23 A / 0.2 - 4 mm ²	Box
GTIN (EAN)	4032248626465	270°, Clamping yoke connection, Clamping range, max. : 4 mm², Box	UL: 300 V / 20 A / AWG 26 - AWG 12	2
Qty.	12 pc(s).			
Туре	BLZP 5.08HC/24/270 SN B	Version	Product data	Packaging
Type Order No.	BLZP 5.08HC/24/270 SN B 1949240000	Version PCB plug-in connector, female plug, 5.08 mm, Number of poles: 24,	Product data IEC: 400 V / 23 A / 0.2 - 4 mm ²	Packaging Box
			IEC: 400 V / 23 A / 0.2 - 4 mm ²	Box



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Mating connector (fully pluggable)

BLZP 5.08HC/225B SN



Clamping-yoke connection with right-angled (90° or 270°) or angled (225°) 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

Туре	BLZP 5.08HC/24/225B SN	Version	Product data	Packaging
Order No.	<u>1945970000</u>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 24,	IEC: 400 V / 17.5 A / 0.2 - 4 mm ²	Box
GTIN (EAN)	4032248621491	225°, Clamping yoke connection, Clamping range, max. : 4 mm², Box	UL: 300 V / 15 A / AWG 26 - AWG 12	2
Qty.	12 pc(s).			
Туре	BLZP 5.08HC/24/225B SN	Version	Product data	Packaging
Type Order No.	BLZP 5.08HC/24/225B SN 1946200000	Version PCB plug-in connector, female plug, 5.08 mm, Number of poles: 24,	Product data IEC: 400 V / 17.5 A / 0.2 - 4 mm ²	Packaging Box
• •	, ,		IEC: 400 V / 17.5 A / 0.2 - 4 mm ²	Box

BLZP 5.08HC/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.

Туре	BLZP 5.08HC/24/180 SN 0	Version	Product data	Packaging
Order No.	<u>1943800000</u>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 24,	IEC: 400 V / 23 A / 0.2 - 4 mm ²	Box
GTIN (EAN)	4032248617814	180°, Clamping yoke connection, Clamping range, max. : 4 mm², Box	UL: 300 V / 20 A / AWG 26 - AWG 12	2
Qty.	12 pc(s).			
Туре	BLZP 5.08HC/24/180 SN B	Version	Product data	Packaging
Type Order No.	BLZP 5.08HC/24/180 SN B 1944030000	Version PCB plug-in connector, female plug, 5.08 mm, Number of poles: 24,	Product data IEC: 400 V / 23 A / 0.2 - 4 mm ²	Packaging Box
			IEC: 400 V / 23 A / 0.2 - 4 mm ²	Вох



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Mating connector (fully pluggable)

BLF 5.08HC/180 SN



Just as reliable as the millionfold proven original and featuring innovative details:

The BLF 5.08HC PUSH IN version of the BLZP 5.08HC female connector is not only different in terms of connection system; it also has 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 5.08HC offers just as much as the version which served as a model:

- 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
- Use the BLF 5.08HC and SL 5.08HC plug combination to reach the max. rated specifications

General ordering data

Туре	BLF 5.08HC/24/180 SN OR	Version	Product data	Packaging
Order No.	1013930000	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 24,	IEC: 400 V / 24 A / 0.2 - 2.5 mm ²	Box
GTIN (EAN)	4032248722020	180°, PUSH IN, Spring connection, Clamping range, max. : 3.31 mm², UL: 300 V / 18.5 A / AWG 26 - A		
Qty.	12 pc(s).	Box	12	
Туре	BLF 5.08HC/24/180 SN BK	Version	Product data	Packaging
Type Order No.	BLF 5.08HC/24/180 SN BK 1013670000	Version PCB plug-in connector, female plug, 5.08 mm, Number of poles: 24,	Product data IEC: 400 V / 24 A / 0.2 - 2.5 mm ²	Packaging Box
	, ,		IEC: 400 V / 24 A / 0.2 - 2.5 mm ²	0 0

BLZP 5.08HC/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.

Туре	BLZP 5.08HC/24/90 SN BK	Version	Product data	Packaging
Order No.	<u>1948460000</u>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 24,	IEC: 400 V / 23 A / 0.2 - 4 mm ²	Box
GTIN (EAN)	4032248624980	$90^{\circ}\text{, Clamping yoke connection, Clamping range, max.}: 4 \text{mm}^{2}\text{, Box}$	UL: 300 V / 20 A / AWG 26 - AWG 1	2
Qty.	12 pc(s).			
Туре	BLZP 5.08HC/24/90 SN OR	Version	Product data	Packaging
Type Order No.	BLZP 5.08HC/24/90 SN OR 1948230000	Version PCB plug-in connector, female plug, 5.08 mm, Number of poles: 24,	Product data IEC: 400 V / 23 A / 0.2 - 4 mm ²	Packaging Box
•	, ,			Вох



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Mating connector (fully pluggable)

BLL 5.08/180



Female header for PCB mounting. The solder pin length is optimised for wave flow soldering.

General ordering data

Туре	BLL 5.08/24/180 3.2 SN	Version	Product data	Packaging
Order No.	<u>1649010000</u>	PCB plug-in connector, female header, closed side, THT solder	IEC: 400 V / 23 A	Box
GTIN (EAN)	4008190293499	connection, 5.08 mm, Number of poles: 24, 180°, Solder pin length	UL: 300 V / 15 A	
Qty.	12 pc(s).	(I): 3.2 mm, tinned, orange, Box		

BLL 5.08/90



Female header for PCB mounting. The solder pin length is optimised for wave flow soldering.

Type	BLL 5.08/24/90 3.2 SN O	Version	Product data	Packaging
Order No.	<u>1648530000</u>	PCB plug-in connector, female header, closed side, THT solder	IEC: 400 V / 23 A	Box
GTIN (EAN)	4008190293000	connection, 5.08 mm, Number of poles: 24, 90°, Solder pin length (I	: UL: 300 V / 15 A	
Qty.	12 pc(s).	3.2 mm, tinned, orange, Box		



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Mating connector (fully pluggable)

BLL 5.08/180B



Female header for PCB mounting. The solder pin length is optimised for wave flow soldering.

Туре	BLL 5.08/24/180B 3.2SN	Version	Product data	Packaging
Order No.	<u>1682950000</u>	PCB plug-in connector, female header, Dovetails for fixing blocks, THT	IEC: 400 V / 23 A	Box
GTIN (EAN)	4008190474713	solder connection, 5.08 mm, Number of poles: 24, 180°, Solder pin	UL: 300 V / 15 A	
Qty.	12 pc(s).	length (I): 3.2 mm, tinned, orange, Box		



SL 5.08/24/135 3.2SN OR BX

Weidmüller Interface GmbH & Co. KG

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Coding elements

Accessories



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

Туре	BLZ/SL KO BK BX	Version	Product data	Packaging
Order No.	<u>1545710000</u>	PCB plug-in connector, Accessories, Coding element, black, Number		Box
GTIN (EAN)	4008190087142	of poles: 1		
Qty.	50 pc(s).			
Туре	BLZ/SL KO OR BX	Version	Product data	Packaging
Order No.	<u>1573010000</u>	PCB plug-in connector, Accessories, Coding element, orange, Number	r	Вох
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 clipon connection or mounting for male and female connectors

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

Туре	SL AT OR	Version	Product data	Packaging
Order No.	<u>1598300000</u>	PCB plug-in connector, Accessories, Spacer, orange, Number of poles	s:	Box
GTIN (EAN)	4008190189266	1		
Otv	100 pc/s)			



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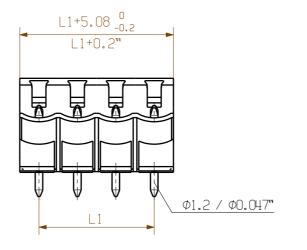
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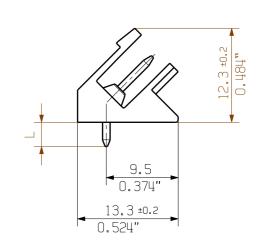
Germany

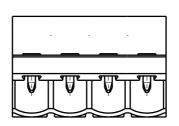
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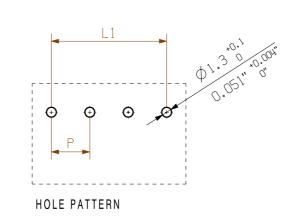
Accessories

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











4,5	-0,3	n	L1 [mm]	L1 [Inch]
4,5	0,1	2	5,08	0,200
3,2	-0,3	ß	10,16	0,400
	0,1	4	15,24	0,600
PIN LENGTH L	TOLERANC	5	20,32	0,800
STIFTLAENGE L	TOLERANZ	6	25,40	1,000
		7	30,48	1,200
		8	35,56	1,400
₩		9	40,64	1,600
		10	45,72	1,800
? ~//		11	50,80	2,000
		12	55,88	2,200
		13	60,96	2,400
		14	66,04	2,600

7292

116,84

111,76 106,68

101,60 96,52

91,44

86,36

81,28

76,20

71,12

4,600 4,400

4,200 4,000

3,800

3,600

3,400

3,200

3,000

2,800

P = RASTER / PITCH SHOWN: SL5.08/04/135

SUPERSEDES:

APPROVED

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.

OTTO WIN.	020.00/04/100					4,5			-0,3	n	L1 [mm] L	.1 [inch]
Dave	METRIC TOLERANCES:				CAT.NO.:.								
ROHS	$X. = \pm 0.3$ $X.X = \pm 0.1$ $X.XX = \pm 0.05$	54686/0 17.11.10 HEF	RTEL_S 01	We	idn	ıülle		3 E	C DRAWING N		976	8	09
	MODIFICATION							SHEET		OF C	2	SHEETS	
			DATE	NAME									
		DRAWN	09.07.2003	GROESCHL_A		91	5	08/	/13	5			
		RESPONSIBLE		HERTEL_S		STIFT			.08//135 STIFTLEISTE PINHEADER				
SCALE:	2:1	CHECKED	18.11.2010	HECKERT_M									

HECKERT_M PRODUCT FILE: SL 5.08/135



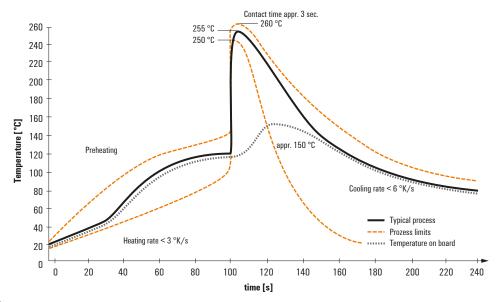
Recommended wave solderding profiles

Weidmüller Interface GmbH & Co. KG

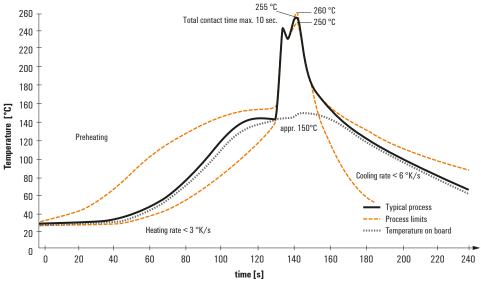
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Single Wave:



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.