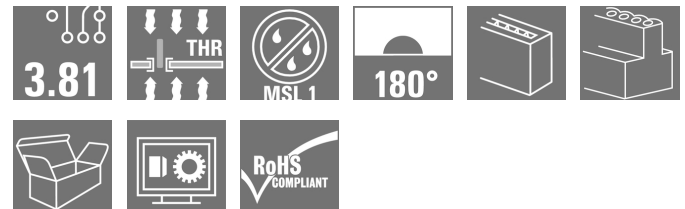


OMNIMATE Signal - series BC/SC 3.81 BCL-SMT 3.81/02/180 1.5SN BK BX

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Product image



Similar to illustration

The inverted BCL-SMT socket block for the PCB offers three significant advantages:

- The BCL-SMT offers touch-safe security on the PCB which makes it ideal for live, current-carrying outputs.
- The BCL-SMT widens the range of applications with board-to-board connections between component assemblies.
- The BCL-SMT is reflow-compatible and can be seamlessly integrated into the automatic assembly and soldering process.

Two outlet directions give you a choice of position and thus more design flexibility.

- 180° standing
- 90° recumbent

Two housing variants are available for the BCL-SMT:

- Without flange
- With inverted solder flange ("LFI", with nut)
 - Fastened to PCB without additional screw
 - Fastened with screw to the SCZ FI

Weidmüller's 3.81-mm-pitch (0.15 inch) plug-in connectors are compatible with the layouts of customary connectors and offer space for labelling and coding.

General ordering data

Type	BCL-SMT 3.81/02/180 1.5SN BK BX
Order No.	1976490000
Version	PCB plug-in connector, female header, closed side, THT/THR solder connection, 3.81 mm, Number of poles: 2, 180°, Solder pin length (l): 1.5 mm, tinned, black, Box
GTIN (EAN)	4032248678983
Qty.	50 pc(s).
Product data	IEC: 320 V / 17.5 A UL: 300 V / 10 A
Packaging	Box

OMNIMATE Signal - series BC/SC 3.81

BCL-SMT 3.81/02/180 1.5SN BK BX

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Technical data

Dimensions and weights

Net weight	0.74 g
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System specifications

Product family	OMNIMATE Signal - series BC/SC 3.81	Type of connection	Board connection
Mounting onto the PCB	THT/THR solder connection	Pitch in mm (P)	3.81 mm
Pitch in inches (P)	0.15 inch	Outgoing elbow	180°
Number of poles	2	Number of solder pins per pole	2
Solder pin length (l)	1.5 mm	Solder pin length tolerance	0 / -0,02 mm
Tolerance of solder pin position	± 0.1 mm	Solder pin dimensions	d = 0.8 mm
Solder pin dimensions = d tolerance	+0,05 / -0,05 mm	Solder eyelet hole diameter (D)	1.2 mm
Solder eyelet hole diameter tolerance (D)	+ 0.1 mm	Outside diameter of solder pad	1.9 mm
Template aperture diameter	1.6 mm	L1 in mm	3.81 mm
L1 in inches	0.15 inch	Number of rows	1
Pin series quantity	1	Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch
Touch-safe protection acc. to DIN VDE 0470	IP 20	Volume resistance	≤ 5mΩ
Can be coded	Yes	Plugging cycles	25
Plugging force/pole, max.	9.5 N	Pulling force/pole, max.	6 N

Material data

Insulating material	LCP GF	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	IIIa
Comparative Tracking Index (CTI)	≥ 175	Insulation strength	≥ 10 ⁸ Ω
Moisture Level (MSL)	1	UL 94 flammability rating	V-0
GWIT	930 °C	GWFI	960 °C
Contact material	Copper alloy	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.	120 °C	Temperature range, installation, min.	-25 °C
Temperature range, installation, max.	120 °C		

Rated data acc. to IEC

tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. number of poles (Tu=20°C)	17.5 A
Rated current, max. number of poles (Tu=20°C)	15.4 A	Rated current, min. number of poles (Tu=40°C)	17.5 A
Rated current, max. number of poles (Tu=40°C)	13.8 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 76 A


**OMNIMATE Signal - series BC/SC 3.81
BCL-SMT 3.81/02/180 1.5SN BK BX**

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

Rated voltage (Use group B / CSA)	300 V	Rated voltage (Use group C / CSA)	50 V
Rated current (Use group B / CSA)	11 A	Rated current (Use group C / CSA)	11 A

Rated data acc. to UL 1059

Institute (cURus)		Certificate No. (cURus)	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	20 mm
VPE width	60 mm	VPE height	105 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	30-21-18-01

Notes

Notes	<ul style="list-style-type: none"> 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

OMNIMATE Signal - series BC/SC 3.81 BCL-SMT 3.81/02/180 1.5SN BK BX

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Technical data

Downloads

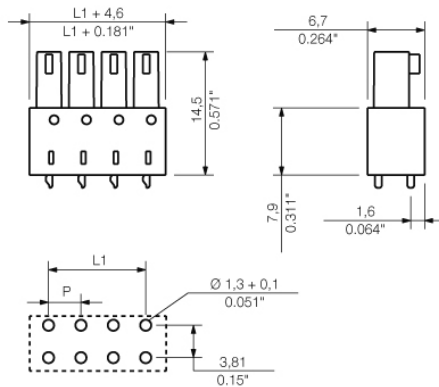
Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
Brochure/Catalogue	FL DRIVES EN MB SMT EN FL DRIVES DE MB DEVICE MANUF. EN CAT 2 PORTFOLIOGUIDE EN FL BUILDING SAFETY EN FL APPL LED LIGHTING EN FL INDUSTR.CONTROLS EN FL MACHINE SAFETY EN FL HEATING ELECTR EN FL APPL INVERTER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

OMNIMATE Signal - series BC/SC 3.81 BCL-SMT 3.81/02/180 1.5SN BK BX

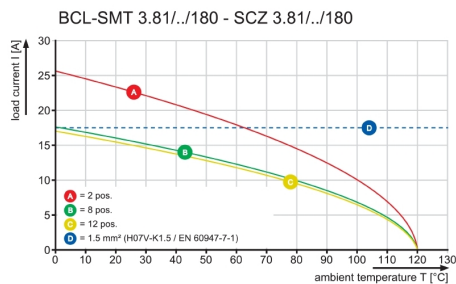
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Drawings

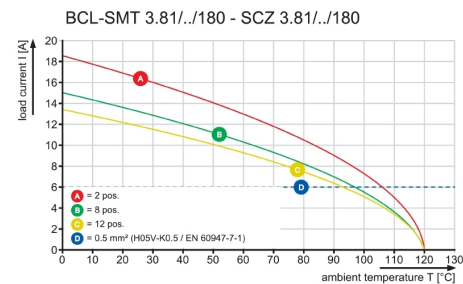
Dimensional drawing



Graph



Graph



OMNIMATE Signal - series BC/SC 3.81 BCL-SMT 3.81/02/180 1.5SN BK BX

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Mating connector (fully pluggable)

SCDV 3.81/90G



Two-tier SCDV pin header for wave soldering.

- It allows you to use two interfaces on only one surface and with only one step in the work flow.
- Outlet direction: 90° (recumbent)
- Connections at two offset levels and with open access to each row.
- Space for labelling and coding
- Packed in cardboard box.

Weidmüller's 3.81-mm-pitch (0.15 inch) plug-in connectors are compatible with the layouts of standard connectors and offer space for labelling and coding.

General ordering data

Type	SCDV 3.81/04/90G 3.2SN ...	Version	Product data	Packaging
Order No.	1032430000	PCB plug-in connector, male header, closed side, THT solder	IEC: 320 V / 17.5 A	Box
GTIN (EAN)	4032248771707	connection, 3.81 mm, Number of poles: 4, 90°, Solder pin length (l):	UL: 300 V / 10 A	
Qty.	50 pc(s).	3.2 mm, tinned, black, Box		
Type	SCDV 3.81/04/90G 3.2SN ...	Version	Product data	Packaging
Order No.	1032260000	PCB plug-in connector, male header, closed side, THT solder	IEC: 320 V / 17.5 A	Box
GTIN (EAN)	4032248771554	connection, 3.81 mm, Number of poles: 4, 90°, Solder pin length (l):	UL: 300 V / 10 A	
Qty.	50 pc(s).	3.2 mm, tinned, Pale green, Box		
Type	SCDV 3.81/04/90G 3.2SN ...	Version	Product data	Packaging
Order No.	1032090000	PCB plug-in connector, male header, closed side, THT solder	IEC: 320 V / 17.5 A	Box
GTIN (EAN)	4032248771400	connection, 3.81 mm, Number of poles: 4, 90°, Solder pin length (l):	UL: 300 V / 10 A	
Qty.	50 pc(s).	3.2 mm, tinned, orange, Box		

SC-SMT 3.81/270G



The SC-SMT pin header in 270°-outlet direction: the 270° angle exists between the plugging direction and the solder pin. The plugging direction is then parallel to the PCB. Sockets blocks, however, have an overhead plugging angle.

- More freedom when designing components and devices.
- A high component density when multiple PCBs are arranged in parallel within one housing
- The housing design is application-friendly because of the additional optional wire outlet direction.
- Available in closed (G) and screw flange (F) versions.
- Pin length of either 1.5 mm or 3.2 mm

Weidmüller's 3.81-mm-pitch (0.15 inch) plug-in connectors are compatible with the layouts of standard connectors and offer space for labelling and coding.

General ordering data

Type	SC-SMT 3.81/02/270G 3.2 ...	Version	Product data	Packaging
Order No.	1036480000	PCB plug-in connector, male header, closed side, THT/THR solder	IEC: 320 V / 17.5 A	Box
GTIN (EAN)	4032248765089	connection, 3.81 mm, Number of poles: 2, 270°, Solder pin length (l):	UL: 300 V / 11 A	
Qty.	50 pc(s).	3.2 mm, tinned, black, Box		

OMNIMATE Signal - series BC/SC 3.81

BCL-SMT 3.81/02/180 1.5SN BK BX

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Mating connector (fully pluggable)

Type	SC-SMT 3.81/02/270G 1.5 ...	Version	Product data	Packaging
Order No.	1036650000	PCB plug-in connector, male header, closed side, THT/THR solder	IEC: 320 V / 17.5 A	Box
GTIN (EAN)	4032248765263	connection, 3.81 mm, Number of poles: 2, 270°, Solder pin length (l):	UL: 300 V / 11 A	
Qty.	50 pc(s).	1.5 mm, tinned, Pale green, Box		

Type	SC-SMT 3.81/02/270G 1.5 ...	Version	Product data	Packaging
Order No.	1036830000	PCB plug-in connector, male header, closed side, THT/THR solder	IEC: 320 V / 17.5 A	Box
GTIN (EAN)	4032248765416	connection, 3.81 mm, Number of poles: 2, 270°, Solder pin length (l):	UL: 300 V / 11 A	
Qty.	50 pc(s).	1.5 mm, tinned, black, Box		

SC 3.81/270G



The SC pin header in 270°-outlet direction: the 270° angle exists between the plugging direction and the solder pin. The plugging direction is then parallel to the PCB. Sockets blocks, however, have an overhead plugging angle.

- More freedom when designing components and devices.
- A high component density when multiple PCBs are arranged in parallel within one housing
- The housing design is application-friendly because of the additional optional wire outlet direction.
- Available in closed (G) and screw flange (F) versions.

Weidmüller's 3.81-mm-pitch (0.15 inch) plug-in connectors are compatible with the layouts of standard connectors and offer space for labelling and coding.

General ordering data

Type	SC 3.81/02/270G 3.2SN G ...	Version	Product data	Packaging
Order No.	1037660000	PCB plug-in connector, male header, closed side, THT solder	IEC: 320 V / 17.5 A	Box
GTIN (EAN)	4032248766277	connection, 3.81 mm, Number of poles: 2, 270°, Solder pin length (l):	UL: 300 V / 10 A	
Qty.	50 pc(s).	3.2 mm, tinned, Pale green, Box		

Type	SC 3.81/02/270G 3.2SN B ...	Version	Product data	Packaging
Order No.	1037870000	PCB plug-in connector, male header, closed side, THT solder	IEC: 320 V / 17.5 A	Box
GTIN (EAN)	4032248766420	connection, 3.81 mm, Number of poles: 2, 270°, Solder pin length (l):	UL: 300 V / 10 A	
Qty.	50 pc(s).	3.2 mm, tinned, black, Box		

Type	SC 3.81/02/270G 3.2SN O ...	Version	Product data	Packaging
Order No.	1037490000	PCB plug-in connector, male header, closed side, THT solder	IEC: 320 V / 17.5 A	Box
GTIN (EAN)	4032248766123	connection, 3.81 mm, Number of poles: 2, 270°, Solder pin length (l):	UL: 300 V / 10 A	
Qty.	50 pc(s).	3.2 mm, tinned, orange, Box		

OMNIMATE Signal - series BC/SC 3.81 BCL-SMT 3.81/02/180 1.5SN BK BX

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Mating connector (fully pluggable)

SC 3.81/90G



The SC pin header has a parallel (recumbent) plugging direction in relation to the PCB. It is available in closed (G) and screw flange (F) versions.

Weidmüller's 3.81-mm-pitch (0.15 inch) plug-in connectors are compatible with the layouts of standard connectors. They support a flood-light display and offer space for labelling and coding.

General ordering data

Type	SC 3.81/02/90G 3.2SN OR ...	Version	Product data	Packaging
Order No.	1942020000	PCB plug-in connector, male header, closed side, THT solder	IEC: 320 V / 17.5 A	Box
GTIN (EAN)	4032248655526	connection, 3.81 mm, Number of poles: 2, 90°, Solder pin length (l):	UL: 300 V / 10 A	
Qty.	50 pc(s).	3.2 mm, tinned, orange, Box		
Type	SC 3.81/02/90G 3.2SN GN ...	Version	Product data	Packaging
Order No.	1793240000	PCB plug-in connector, male header, closed side, THT solder	IEC: 320 V / 17.5 A	Box
GTIN (EAN)	4032248227716	connection, 3.81 mm, Number of poles: 2, 90°, Solder pin length (l):	UL: 300 V / 10 A	
Qty.	50 pc(s).	3.2 mm, tinned, Pale green, Box		
Type	SC 3.81/02/90G 3.2SN BK ...	Version	Product data	Packaging
Order No.	1793130000	PCB plug-in connector, male header, closed side, THT solder	IEC: 320 V / 17.5 A	Box
GTIN (EAN)	4032248227624	connection, 3.81 mm, Number of poles: 2, 90°, Solder pin length (l):	UL: 300 V / 10 A	
Qty.	50 pc(s).	3.2 mm, tinned, black, Box		

SCDN-THR 3.81/90G



Extra flat high-temperature-resistant two-tier SCDN-THR pin header for reflow soldering.

- Two compact interfaces are used with the flat BCF 3.81 (PUSH IN) socket block.
- Available as 90° (recumbent).
- Connections on a single level, allowing access that is flush over the front board.
- Space for labelling and coding
- Packed in cardboard box.

Weidmüller's 3.81-mm-pitch (0.15 inch) plug-in connectors are compatible with the layouts of standard connectors and offer space for labelling and coding.

General ordering data

Type	SCDN-THR 3.81/04/90G 1.5 ...	Version	Product data	Packaging
Order No.	1039270000	PCB plug-in connector, male header, closed side, THT/THR solder	IEC: 320 V / 17.5 A	Box
GTIN (EAN)	4032248772599	connection, 3.81 mm, Number of poles: 4, 90°, Solder pin length (l):	UL: 300 V / 11 A	
Qty.	50 pc(s).	1.5 mm, tinned, black, Box		
Type	SCDN-THR 3.81/04/90G 3.2 ...	Version	Product data	Packaging
Order No.	1038950000	PCB plug-in connector, male header, closed side, THT/THR solder	IEC: 320 V / 17.5 A	Box
GTIN (EAN)	4032248767601	connection, 3.81 mm, Number of poles: 4, 90°, Solder pin length (l):	UL: 300 V / 11 A	
Qty.	50 pc(s).	3.2 mm, tinned, black, Box		

OMNIMATE Signal - series BC/SC 3.81 BCL-SMT 3.81/02/180 1.5SN BK BX

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Mating connector (fully pluggable)

Type	SCDN-THR 3.81/04/90G 1.5 ...	Version	Product data	Packaging
Order No.	1039110000	PCB plug-in connector, male header, closed side, THT/THR solder	IEC: 320 V / 17.5 A	Box
GTIN (EAN)	4032248772445	connection, 3.81 mm, Number of poles: 4, 90°, Solder pin length (l):	UL: 300 V / 11 A	
Qty.	50 pc(s).	1.5 mm, tinned, Pale green, Box		

SC-SMT 3.81/180G Tape



High-temperature-resistant pin header (SC-SMT 180G) in 3.81-mm pitch (0.15 inch)

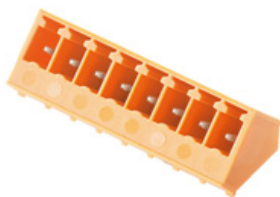
- Plugging direction is perpendicular to PCB (standing)
- Closed (G) .
- Packed either in box (BX) or on anti-static roll (tape-on-reel, RL)
- Pin length of either 1.5 mm or 3.2 mm

Weidmüller's 3.81-mm-pitch (0.15 inch) plug-in connectors are compatible with the layouts of standard connectors and offer space for labelling and coding.

General ordering data

Type	SC-SMT 3.81/02/180G 1.5 ...	Version	Product data	Packaging
Order No.	1864050000	PCB plug-in connector, male header, closed side, THT/THR solder	IEC: 320 V / 17.5 A	Tape
GTIN (EAN)	4032248429172	connection, 3.81 mm, Number of poles: 2, 180°, Solder pin length (l):	UL: 300 V / 11 A	
Qty.	300 pc(s).	1.5 mm, tinned, black, Tape		
Type	SC-SMT 3.81/02/180G 3.2 ...	Version	Product data	Packaging
Order No.	1863450000	PCB plug-in connector, male header, closed side, THT/THR solder	IEC: 320 V / 17.5 A	Tape
GTIN (EAN)	4032248428557	connection, 3.81 mm, Number of poles: 2, 180°, Solder pin length (l):	UL: 300 V / 11 A	
Qty.	300 pc(s).	3.2 mm, tinned, black, Tape		

SC 3.81/135G



The SC pin header with 135° wire outlet direction: the 135° angle exists between the plugging direction and the solder pin. The wire outlet direction is then diagonal or 45° to the PCB.

- More freedom when designing components and devices.
- Easy access and a high component density when multiple interfaces are arranged in parallel within a single plugging area
- The housing design is application-friendly because of the additional optional wire outlet direction.
- Available in closed (G) and screw flange (F) versions.

Weidmüller's 3.81-mm-pitch (0.15 inch) plug-in connectors are compatible with the layouts of standard connectors and offer space for labelling and coding.

General ordering data

Type	SC 3.81/02/135G 3.2SN O ...	Version	Product data	Packaging
Order No.	1975720000	PCB plug-in connector, male header, closed side, THT solder	IEC: 320 V / 17.5 A	Box
GTIN (EAN)	4032248684144	connection, 3.81 mm, Number of poles: 2, 135°, Solder pin length (l):	UL: 300 V / 10 A	
Qty.	50 pc(s).	3.2 mm, tinned, orange, Box		

OMNIMATE Signal - series BC/SC 3.81 BCL-SMT 3.81/02/180 1.5SN BK BX

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Mating connector (fully pluggable)

Type	SC 3.81/02/135G 3.2SN B ...	Version	Product data	Packaging
Order No.	1976380000	PCB plug-in connector, male header, closed side, THT solder	IEC: 320 V / 17.5 A	Box
GTIN (EAN)	4032248684502	connection, 3.81 mm, Number of poles: 2, 135°, Solder pin length (l):	UL: 300 V / 10 A	
Qty.	50 pc(s).	3.2 mm, tinned, black, Box		
Type	SC 3.81/02/135G 3.2SN G ...	Version	Product data	Packaging
Order No.	1976010000	PCB plug-in connector, male header, closed side, THT solder	IEC: 320 V / 17.5 A	Box
GTIN (EAN)	4032248684359	connection, 3.81 mm, Number of poles: 2, 135°, Solder pin length (l):	UL: 300 V / 10 A	
Qty.	50 pc(s).	3.2 mm, tinned, Pale green, Box		

SCD-THR 3.81/90G



High-temperature-resistant two-tier SCD-THR pin header for reflow soldering.

- It allows you to use two interfaces on only one surface and with only one step in the work flow.
- Outlet direction: 90° (recumbent)
- Connections at the same level and with access that is flush over the front board.
- Space for labelling and coding
- Packed in cardboard box.

Weidmüller's 3.81-mm-pitch (0.15 inch) plug-in connectors are compatible with the layouts of standard connectors and offer space for labelling and coding.

General ordering data

Type	SCD-THR 3.81/04/90G 1.5 ...	Version	Product data	Packaging
Order No.	1974030000	PCB plug-in connector, male header, closed side, THT/THR solder	IEC: 320 V / 17.5 A	Box
GTIN (EAN)	4032248683543	connection, 3.81 mm, Number of poles: 4, 90°, Solder pin length (l):	UL: 300 V / 11 A	
Qty.	50 pc(s).	1.5 mm, tinned, black, Box		
Type	SCD-THR 3.81/04/90G 3.2 ...	Version	Product data	Packaging
Order No.	1973730000	PCB plug-in connector, male header, closed side, THT/THR solder	IEC: 320 V / 17.5 A	Box
GTIN (EAN)	4032248683246	connection, 3.81 mm, Number of poles: 4, 90°, Solder pin length (l):	UL: 300 V / 11 A	
Qty.	50 pc(s).	3.2 mm, tinned, black, Box		

OMNIMATE Signal - series BC/SC 3.81 BCL-SMT 3.81/02/180 1.5SN BK BX

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Mating connector (fully pluggable)

SCDV 3.81/180G



Two-tier SCDV pin header for wave soldering.

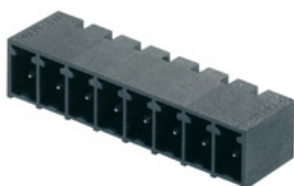
- It allows you to use two interfaces on only one surface and with only one step in the work flow.
- Outlet direction: 180° (standing).
- Connections at two offset levels and open access to each row.
- Space for labelling and coding
- Packed in cardboard box.

Weidmüller's 3.81-mm-pitch (0.15 inch) plug-in connectors are compatible with the layouts of standard connectors and offer space for labelling and coding.

General ordering data

Type	SCDV 3.81/04/180G 3.2SN ...	Version	Product data	Packaging
Order No.	1034470000	PCB plug-in connector, male header, closed side, THT solder	IEC: 320 V / 17.5 A	Box
GTIN (EAN)	4032248763313	connection, 3.81 mm, Number of poles: 4, 180°, Solder pin length (l):	UL: 300 V / 10 A	
Qty.	50 pc(s).	3.2 mm, tinned, orange, Box		
Type	SCDV 3.81/04/180G 3.2SN ...	Version	Product data	Packaging
Order No.	1034820000	PCB plug-in connector, male header, closed side, THT solder	IEC: 320 V / 17.5 A	Box
GTIN (EAN)	4032248763610	connection, 3.81 mm, Number of poles: 4, 180°, Solder pin length (l):	UL: 300 V / 10 A	
Qty.	50 pc(s).	3.2 mm, tinned, black, Box		
Type	SCDV 3.81/04/180G 3.2SN ...	Version	Product data	Packaging
Order No.	1034650000	PCB plug-in connector, male header, closed side, THT solder	IEC: 320 V / 17.5 A	Box
GTIN (EAN)	4032248763467	connection, 3.81 mm, Number of poles: 4, 180°, Solder pin length (l):	UL: 300 V / 10 A	
Qty.	50 pc(s).	3.2 mm, tinned, Pale green, Box		

SC-SMT 3.81/90G Tape



High-temperature-resistant pin header (SC-SMT 90G) in 3.81-mm pitch (0.15 inch)

- Plugging direction parallel to PCB (recumbent)
- Closed (G)
- Packed either in box (BX) or on anti-static roll (tape-on-reel, RL)
- Pin length of either 1.5 mm or 3.2 mm

Weidmüller's 3.81-mm-pitch (0.15 inch) plug-in connectors are compatible with the layouts of standard connectors and offer space for labelling and coding.

General ordering data

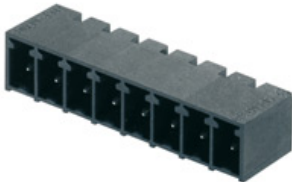
Type	SC-SMT 3.81/02/90G 3.2S ...	Version	Product data	Packaging
Order No.	1862810000	PCB plug-in connector, male header, closed side, THT/THR solder	IEC: 320 V / 17.5 A	Tape
GTIN (EAN)	4032248427772	connection, 3.81 mm, Number of poles: 2, 90°, Solder pin length (l):	UL: 300 V / 11 A	
Qty.	400 pc(s).	3.2 mm, tinned, black, Tape		
Type	SC-SMT 3.81/02/90G 1.5S ...	Version	Product data	Packaging
Order No.	1863140000	PCB plug-in connector, male header, closed side, THT/THR solder	IEC: 320 V / 17.5 A	Tape
GTIN (EAN)	4032248428335	connection, 3.81 mm, Number of poles: 2, 90°, Solder pin length (l):	UL: 300 V / 11 A	
Qty.	400 pc(s).	1.5 mm, tinned, black, Tape		

OMNIMATE Signal - series BC/SC 3.81 BCL-SMT 3.81/02/180 1.5SN BK BX

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Mating connector (fully pluggable)

SC-SMT 3.81/90G Box



High-temperature-resistant pin header (SC-SMT 90G) in 3.81-mm pitch (0.15 inch)

- Plugging direction parallel to PCB (recumbent)
- Closed (G)
- Packed either in box (BX) or on anti-static roll (tape-on-reel, RL)
- Pin length of either 1.5 mm or 3.2 mm

Weidmüller's 3.81-mm-pitch (0.15 inch) plug-in connectors are compatible with the layouts of standard connectors and offer space for labelling and coding.

General ordering data

Type	SC-SMT 3.81/02/90G 3.2S ...	Version	Product data	Packaging
Order No.	1862460000	PCB plug-in connector, male header, closed side, THT/THR solder connection, 3.81 mm, Number of poles: 2, 90°, Solder pin length (l): 3.2 mm, tinned, black, Box	IEC: 320 V / 17.5 A UL: 300 V / 11 A	Box
GTIN (EAN)	4032248427611			
Qty.	50 pc(s).			
Type	SC-SMT 3.81/02/90G 1.5S ...	Version	Product data	Packaging
Order No.	1862960000	PCB plug-in connector, male header, closed side, THT/THR solder connection, 3.81 mm, Number of poles: 2, 90°, Solder pin length (l): 1.5 mm, tinned, black, Box	IEC: 320 V / 17.5 A UL: 300 V / 11 A	Box
GTIN (EAN)	4032248428069			
Qty.	50 pc(s).			

SCDV-THR 3.81/90G



High-temperature-resistant two-tier SCDV-THR pin header for reflow soldering.

- It allows you to use two interfaces on only one surface and with only one step in the work flow.
- Outlet direction: 90° (recumbent)
- Connections at two offset levels and open access to each row.
- Space for labelling and coding
- Packed in cardboard box.

Weidmüller's 3.81-mm-pitch (0.15 inch) plug-in connectors are compatible with the layouts of standard connectors and offer space for labelling and coding.

General ordering data

Type	SCDV-THR 3.81/04/90G 1. ...	Version	Product data	Packaging
Order No.	1033820000	PCB plug-in connector, male header, closed side, THT/THR solder connection, 3.81 mm, Number of poles: 4, 90°, Solder pin length (l): 1.5 mm, tinned, black, Box	IEC: 320 V / 17.5 A UL: 300 V / 11 A	Box
GTIN (EAN)	4032248762712			
Qty.	50 pc(s).			
Type	SCDV-THR 3.81/04/90G 1. ...	Version	Product data	Packaging
Order No.	1033650000	PCB plug-in connector, male header, closed side, THT/THR solder connection, 3.81 mm, Number of poles: 4, 90°, Solder pin length (l): 1.5 mm, tinned, Pale green, Box	IEC: 320 V / 17.5 A UL: 300 V / 11 A	Box
GTIN (EAN)	4032248762569			
Qty.	50 pc(s).			

OMNIMATE Signal - series BC/SC 3.81

BCL-SMT 3.81/02/180 1.5SN BK BX

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Mating connector (fully pluggable)

Type	SCDV-THR 3.81/04/90G 3. ...	Version	Product data	Packaging
Order No.	1033490000	PCB plug-in connector, male header, closed side, THT/THR solder connection, 3.81 mm, Number of poles: 4, 90°, Solder pin length (l): 3.2 mm, tinned, black, Box	IEC: 320 V / 17.5 A UL: 300 V / 11 A	Box
GTIN (EAN)	4032248762415			
Qty.	50 pc(s).			

SCD-THR 3.81/180G



High-temperature-resistant two-tier SCD-THR pin header for reflow soldering.

- It allows you to use two interfaces on only one surface and with only one step in the work flow.
- Outlet direction: 90° (recumbent)
- Connections at the same level and with access that is flush over the front board.
- Space for labelling and coding
- Packed in cardboard box.

Weidmüller's 3.81-mm-pitch (0.15 inch) plug-in connectors are compatible with the layouts of standard connectors and offer space for labelling and coding.

General ordering data

Type	SCD-THR 3.81/04/180G 1. ...	Version	Product data	Packaging
Order No.	1031290000	PCB plug-in connector, male header, closed side, THT/THR solder connection, 3.81 mm, Number of poles: 4, 180°, Solder pin length (l): 1.5 mm, tinned, black, Box	IEC: 320 V / 17.5 A UL: 300 V / 11 A	Box
GTIN (EAN)	4032248760336			
Qty.	50 pc(s).			

Type	SCD-THR 3.81/04/180G 3. ...	Version	Product data	Packaging
Order No.	1030950000	PCB plug-in connector, male header, closed side, THT/THR solder connection, 3.81 mm, Number of poles: 4, 180°, Solder pin length (l): 3.2 mm, tinned, black, Box	IEC: 320 V / 17.5 A UL: 300 V / 11 A	Box
GTIN (EAN)	4032248760039			
Qty.	50 pc(s).			

SC 3.81/180G



The SC pin header has a perpendicular (standing) plugging direction in relation to the PCB. It is available in closed (G) and screw flange (F) versions.

Weidmüller's 3.81-mm-pitch (0.15 inch) plug-in connectors are compatible with the layouts of standard connectors and offer space for labelling and coding.

General ordering data

Type	SC 3.81/02/180G 3.2SN B ...	Version	Product data	Packaging
Order No.	1793520000	PCB plug-in connector, male header, closed side, THT solder connection, 3.81 mm, Number of poles: 2, 180°, Solder pin length (l): 3.2 mm, tinned, black, Box	IEC: 320 V / 17.5 A UL: 300 V / 10 A	Box
GTIN (EAN)	4032248230433			
Qty.	50 pc(s).			

Type	SC 3.81/02/180G 3.2SN O ...	Version	Product data	Packaging
Order No.	1942840000	PCB plug-in connector, male header, closed side, THT solder connection, 3.81 mm, Number of poles: 2, 180°, Solder pin length (l): 3.2 mm, tinned, orange, Box	IEC: 320 V / 17.5 A UL: 300 V / 10 A	Box
GTIN (EAN)	4032248654758			
Qty.	50 pc(s).			

OMNIMATE Signal - series BC/SC 3.81 BCL-SMT 3.81/02/180 1.5SN BK BX

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Mating connector (fully pluggable)

Type	SC 3.81/02/180G 3.2SN G ...	Version	Product data	Packaging
Order No.	1793610000	PCB plug-in connector, male header, closed side, THT solder	IEC: 320 V / 17.5 A	Box
GTIN (EAN)	4032248230730	connection, 3.81 mm, Number of poles: 2, 180°, Solder pin length (l):	UL: 300 V / 10 A	
Qty.	50 pc(s).	3.2 mm, tinned, Pale green, Box		

SCD 3.81/90G



Two-tier SCD pin header for wave soldering.

- It allows you to use two interfaces on only one surface and with only one step in the work flow.
- Outlet direction: 90° (recumbent)
- Connections at the same level and with access that is flush over the front board.
- Space for labelling and coding
- Packed in cardboard box.

Weidmüller's 3.81-mm-pitch (0.15 inch) plug-in connectors are compatible with the layouts of standard connectors and offer space for labelling and coding.

General ordering data

Type	SCD 3.81/04/90G 3.2SN G ...	Version	Product data	Packaging
Order No.	1972940000	PCB plug-in connector, male header, closed side, THT solder	IEC: 320 V / 17.5 A	Box
GTIN (EAN)	4032248682515	connection, 3.81 mm, Number of poles: 4, 90°, Solder pin length (l):	UL: 300 V / 10 A	
Qty.	50 pc(s).	3.2 mm, tinned, Pale green, Box		

Type	SCD 3.81/04/90G 3.2SN O ...	Version	Product data	Packaging
Order No.	1972790000	PCB plug-in connector, male header, closed side, THT solder	IEC: 320 V / 17.5 A	Box
GTIN (EAN)	4032248682362	connection, 3.81 mm, Number of poles: 4, 90°, Solder pin length (l):	UL: 300 V / 10 A	
Qty.	50 pc(s).	3.2 mm, tinned, orange, Box		

SCD 3.81/180G



Two-tier SCD pin header for wave soldering.

- It allows you to use two interfaces on only one surface and with only one step in the work flow.
- Outlet direction: 180° (standing).
- Connections at the same level and with access that is flush over the front board.
- Space for labelling and coding
- Packed in cardboard box.

Weidmüller's 3.81-mm-pitch (0.15 inch) plug-in connectors are compatible with the layouts of standard connectors and offer space for labelling and coding.

General ordering data

Type	SCD 3.81/04/180G 3.2SN ...	Version	Product data	Packaging
Order No.	1030260000	PCB plug-in connector, male header, closed side, THT solder	IEC: 320 V / 17.5 A	Box
GTIN (EAN)	4032248759439	connection, 3.81 mm, Number of poles: 4, 180°, Solder pin length (l):	UL: 300 V / 10 A	
Qty.	50 pc(s).	3.2 mm, tinned, black, Box		

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Mating connector (fully pluggable)

Type	SCDV-THR 3.81/04/180G 3.2SN ...	Version	Product data	Packaging
Order No.	1030090000	PCB plug-in connector, male header, closed side, THT solder	IEC: 320 V / 17.5 A	Box
GTIN (EAN)	4032248759217	connection, 3.81 mm, Number of poles: 4, 180°, Solder pin length (l):	UL: 300 V / 10 A	
Qty.	50 pc(s).	3.2 mm, tinned, Pale green, Box		

SCDV-THR 3.81/180G



High-temperature-resistant two-tier SCDV-THR pin header for reflow soldering.

- It allows you to use two interfaces on only one surface and with only one step in the work flow.
- Outlet direction: 90° (recumbent)
- Connections at two offset levels and open access to each row.
- Space for labelling and coding
- Packed in cardboard box.

Weidmüller's 3.81-mm-pitch (0.15 inch) plug-in connectors are compatible with the layouts of standard connectors and offer space for labelling and coding.

General ordering data

Type	SCDV-THR 3.81/04/180G 1 ...	Version	Product data	Packaging
Order No.	1035790000	PCB plug-in connector, male header, closed side, THT/THR solder	IEC: 320 V / 17.5 A	Box
GTIN (EAN)	4032248763887	connection, 3.81 mm, Number of poles: 4, 180°, Solder pin length (l):	UL: 300 V / 11 A	
Qty.	50 pc(s).	1.5 mm, tinned, black, Box		
Type	SCDV-THR 3.81/04/180G 1 ...	Version	Product data	Packaging
Order No.	1035640000	PCB plug-in connector, male header, closed side, THT/THR solder	IEC: 320 V / 17.5 A	Box
GTIN (EAN)	4032248764389	connection, 3.81 mm, Number of poles: 4, 180°, Solder pin length (l):	UL: 300 V / 11 A	
Qty.	50 pc(s).	1.5 mm, tinned, Pale green, Box		
Type	SCDV-THR 3.81/04/180G 3 ...	Version	Product data	Packaging
Order No.	1035470000	PCB plug-in connector, male header, closed side, THT/THR solder	IEC: 320 V / 17.5 A	Box
GTIN (EAN)	4032248764235	connection, 3.81 mm, Number of poles: 4, 180°, Solder pin length (l):	UL: 300 V / 11 A	
Qty.	50 pc(s).	3.2 mm, tinned, black, Box		

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Mating connector (fully pluggable)

SC-SMT 3.81/135G



The high-temperature-resistant SC-SMT pin header with 135° wire outlet direction: the 135° angle exists between the plugging direction and the solder pin. The wire outlet direction is then diagonal or 45° to the PCB.

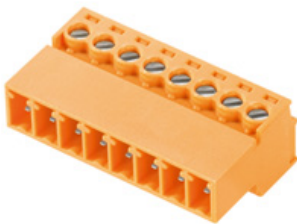
- More freedom when designing components and devices.
- Easy access and a high component density when multiple interfaces are arranged in parallel within a single plugging area
- The housing design is application-friendly because of the additional optional wire outlet direction.
- Available as closed (G) and with solder flange (LF).
- Pin length of either 1.5 mm or 3.2 mm

Weidmüller's 3.81-mm-pitch (0.15 inch) plug-in connectors are compatible with the layouts of standard connectors and offer space for labelling and coding.

General ordering data

Type	SC-SMT 3.81/02/135G 3.2 ...	Version	Product data	Packaging
Order No.	1977200000	PCB plug-in connector, male header, closed side, THT/THR solder connection, 3.81 mm, Number of poles: 2, 135°, Solder pin length (l): 3.2 mm, tinned, black, Box	IEC: 320 V / 17.5 A UL: 300 V / 11 A	Box
GTIN (EAN)	4032248685219			
Qty.	50 pc(s).			
Type	SC-SMT 3.81/02/135G 1.5 ...	Version	Product data	Packaging
Order No.	1977930000	PCB plug-in connector, male header, closed side, THT/THR solder connection, 3.81 mm, Number of poles: 2, 135°, Solder pin length (l): 1.5 mm, tinned, black, Box	IEC: 320 V / 17.5 A UL: 300 V / 11 A	Box
GTIN (EAN)	4032248685516			
Qty.	50 pc(s).			

SCZ 3.81/180G



The inverted SCZ pin plug with clamping-yoke screw connection is designed for straight wire connections in 3.81-mm pitch. It can be used in two ways:

- for wire-to-wire connections together with the BCZ
- as a mating plug for the touch-safe BCL socket block on the PCB.

The SCZ is available in four different versions:

- Without flange ("G", closed)
- With standard flange ("F", with socket nut)
- With inverted flange ("FI", with screw)
- and with Weidmüller's patented release latch for a tool-free, no-strain disconnect

The SCZ provides space for labelling and can be coded.

General ordering data

Type	SCZ 3.81/02/180G SN OR ...	Version	Product data	Packaging
Order No.	1969520000	PCB plug-in connector, male plug, 3.81 mm, Number of poles: 2, 180°, Clamping yoke connection, Clamping range, max.: 1.5 mm², Box	IEC: 320 V / 17.5 A / 0.2 - 1.5 mm² UL: 300 V / 10 A / AWG 28 - AWG 16	Box
GTIN (EAN)	4032248679133			
Qty.	50 pc(s).			

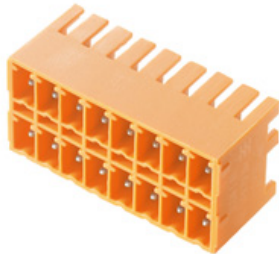
OMNIMATE Signal - series BC/SC 3.81 BCL-SMT 3.81/02/180 1.5SN BK BX

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Mating connector (fully pluggable)

Type	SCZ 3.81/02/180G SN BK ...	Version	Product data	Packaging
Order No.	1970010000	PCB plug-in connector, male plug, 3.81 mm, Number of poles: 2,	IEC: 320 V / 17.5 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4032248679430	180°, Clamping yoke connection, Clamping range, max.: 1.5 mm ² ,	UL: 300 V / 10 A / AWG 28 - AWG 16	
Qty.	50 pc(s).	Box		
Type	SCZ 3.81/02/180G SN GN ...	Version	Product data	Packaging
Order No.	1969750000	PCB plug-in connector, male plug, 3.81 mm, Number of poles: 2,	IEC: 320 V / 17.5 A / 0.2 - 1.5 mm ²	Box
GTIN (EAN)	4032248679287	180°, Clamping yoke connection, Clamping range, max.: 1.5 mm ² ,	UL: 300 V / 10 A / AWG 28 - AWG 16	
Qty.	50 pc(s).	Box		

SCDN 3.81/90G



Extra flat two-tier SCDN pin header for wave soldering.

- Two compact interfaces are used with the flat BCF 3.81 (PUSH IN) socket block.
- Available as 90° (recumbent).
- Connections on a single level, allowing access that is flush over the front board.
- Space for labelling and coding
- Packed in cardboard box.

Weidmüller's 3.81-mm-pitch (0.15 inch) plug-in connectors are compatible with the layouts of standard connectors and offer space for labelling and coding.

General ordering data

Type	SCDN 3.81/04/90G 3.2SN ...	Version	Product data	Packaging
Order No.	1040790000	PCB plug-in connector, male header, closed side, THT solder	IEC: 320 V / 17.5 A	Box
GTIN (EAN)	4032248769650	connection, 3.81 mm, Number of poles: 4, 90°, Solder pin length (l):	UL: 300 V / 10 A	
Qty.	50 pc(s).	3.2 mm, tinned, black, Box		
Type	SCDN 3.81/04/90G 3.2SN ...	Version	Product data	Packaging
Order No.	1040580000	PCB plug-in connector, male header, closed side, THT solder	IEC: 320 V / 17.5 A	Box
GTIN (EAN)	4032248769223	connection, 3.81 mm, Number of poles: 4, 90°, Solder pin length (l):	UL: 300 V / 10 A	
Qty.	50 pc(s).	3.2 mm, tinned, Pale green, Box		
Type	SCDN 3.81/04/90G 3.2SN ...	Version	Product data	Packaging
Order No.	1040410000	PCB plug-in connector, male header, closed side, THT solder	IEC: 320 V / 17.5 A	Box
GTIN (EAN)	4032248769070	connection, 3.81 mm, Number of poles: 4, 90°, Solder pin length (l):	UL: 300 V / 10 A	
Qty.	50 pc(s).	3.2 mm, tinned, orange, Box		

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Mating connector (fully pluggable)

SC-SMT 3.81/180G Box



High-temperature-resistant pin header (SC-SMT 180G) in 3.81-mm pitch (0.15 inch)

- Plugging direction is perpendicular to PCB (standing)
- Closed (G) .
- Packed either in box (BX) or on anti-static roll (tape-on-reel, RL)
- Pin length of either 1.5 mm or 3.2 mm

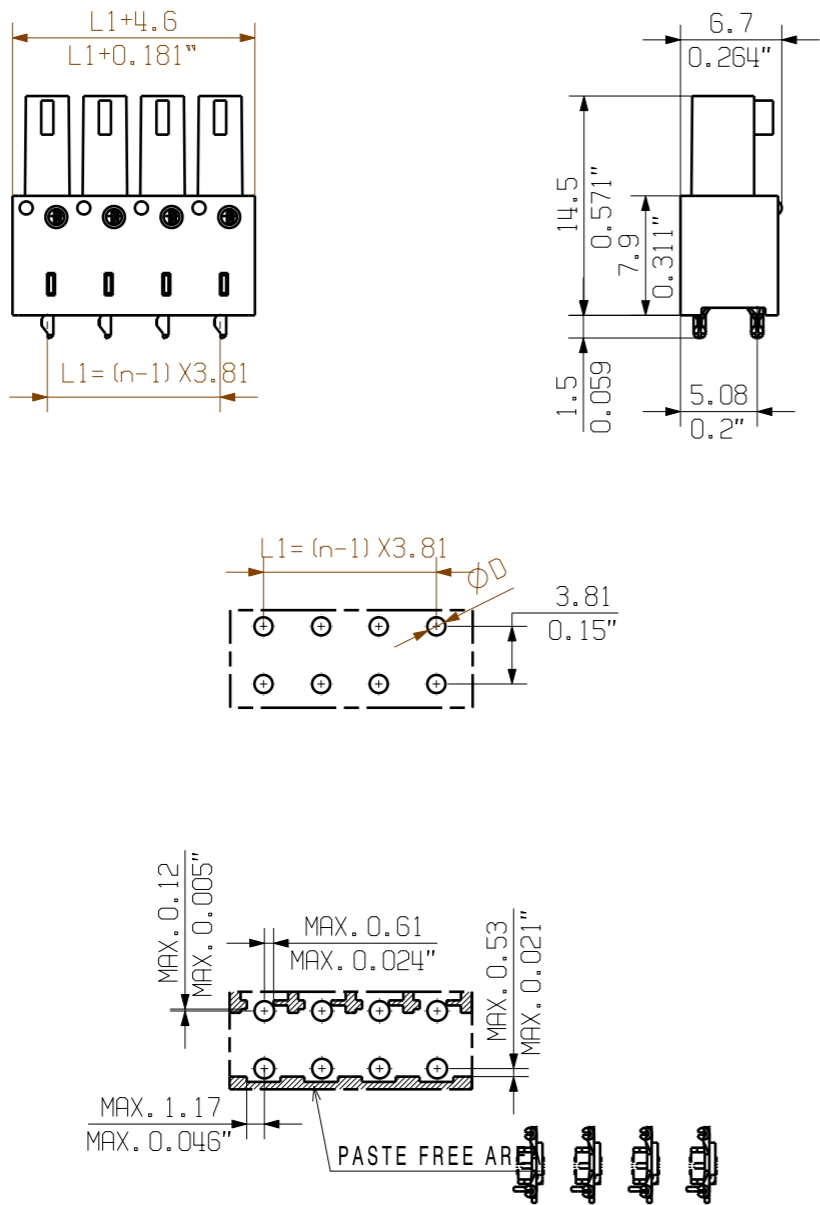
Weidmüller's 3.81-mm-pitch (0.15 inch) plug-in connectors are compatible with the layouts of standard connectors and offer space for labelling and coding.

General ordering data

Type	SC-SMT 3.81/02/180G 3.2 ...	Version	Product data	Packaging
Order No.	1862920000	PCB plug-in connector, male header, closed side, THT/THR solder	IEC: 320 V / 17.5 A	Box
GTIN (EAN)	4032248428113	connection, 3.81 mm, Number of poles: 2, 180°, Solder pin length (l):	UL: 300 V / 11 A	
Qty.	50 pc(s).	3.2 mm, tinned, black, Box		
Type	SC-SMT 3.81/02/180G 1.5 ...	Version	Product data	Packaging
Order No.	1863720000	PCB plug-in connector, male header, closed side, THT/THR solder	IEC: 320 V / 17.5 A	Box
GTIN (EAN)	4032248428793	connection, 3.81 mm, Number of poles: 2, 180°, Solder pin length (l):	UL: 300 V / 11 A	
Qty.	50 pc(s).	1.5 mm, tinned, black, Box		

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BCL-SMT 3.81/.../180 1.5...



NOTE:

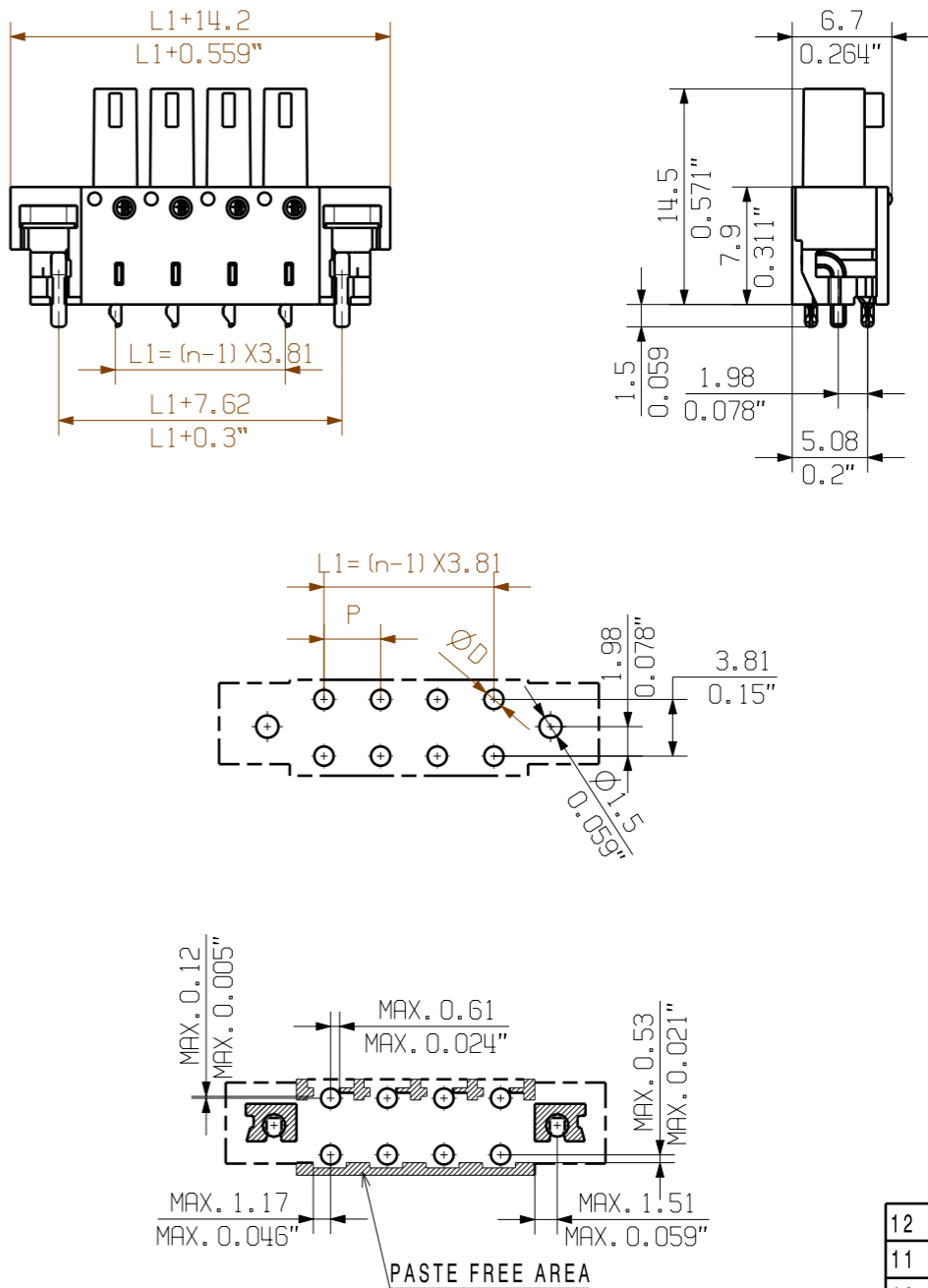
n=NO OF POLES
P=PITCH

KUNDENZEICHNUNG
CUSTOMER DRAWING




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.

BCL-SMT 3.81/.../180LFI 1.5...



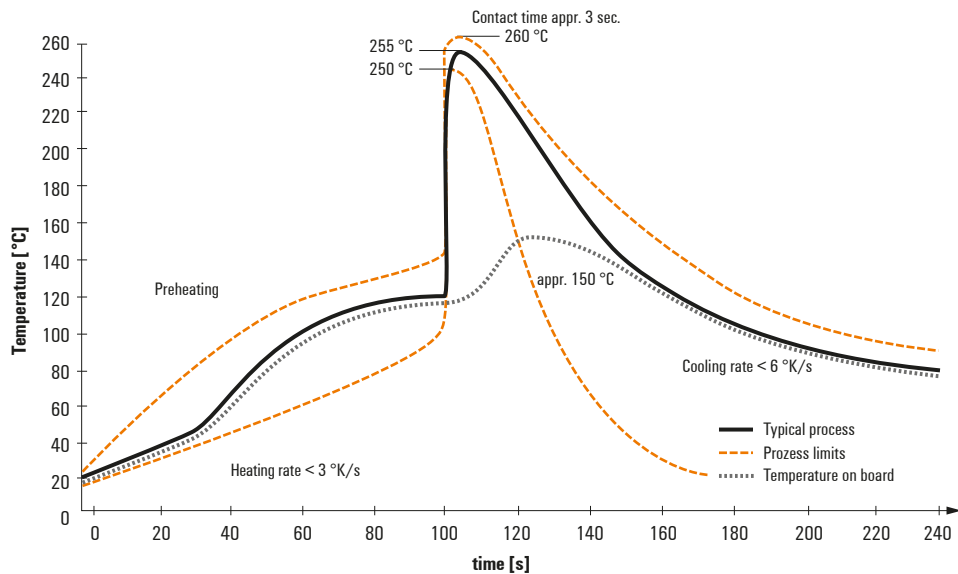
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7	22.86	0.900
6	19.05	0.750
5	15.24	0.600
4	11.43	0.450
3	7.62	0.300
2	3.81	0.150
n	L1 [mm]	L1 [inch]

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MODIFICATION					
		DRAWING NO.		ISSUE NO.	
		DATE	NAME	BCL-SMT 3.81/.../180...1.5... LOETANSCHLUSS BUCHSENLEISTE SOLDER CONNECTION SOCKET CONNECTOR	
SCALE: 2/1		DRAWN	19.02.2008 SHI_S		
SUPERSEDES: -		RESPONSIBLE	XU_S		
SUPERSEDED BY: .		CHECKED	29.08.2012 ZHOU_N		
		APPROVED	XU_S	PRODUCT FILE: BCL-SMT 3.81	
				7084	

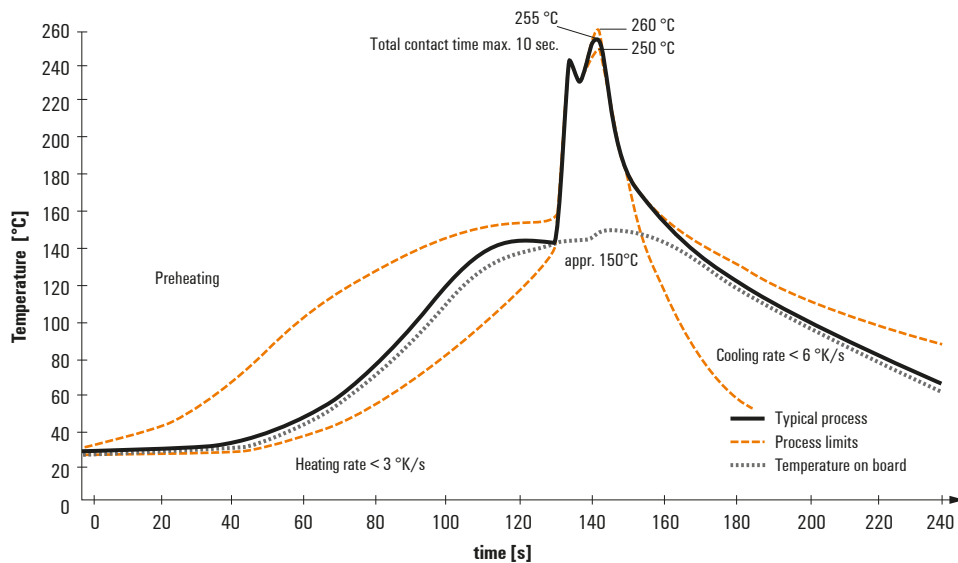
Recommended wave soldering profiles

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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:

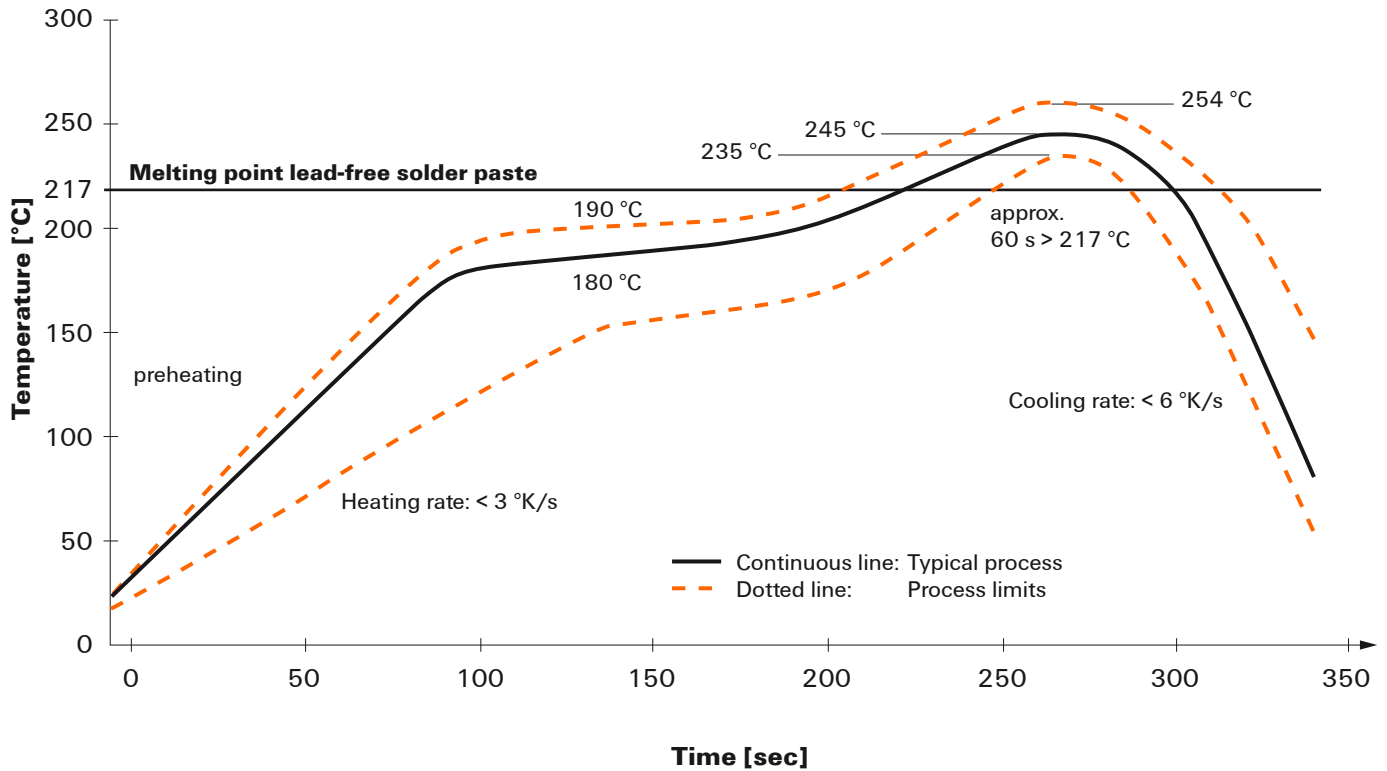
- PCB thickness
- Proportion of Cu in the layers
- Single/double-sided assembly
- Product range
- Heating and cooling rates

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.

We reserve the right to make technical changes.

Recommended reflow soldering profile

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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.