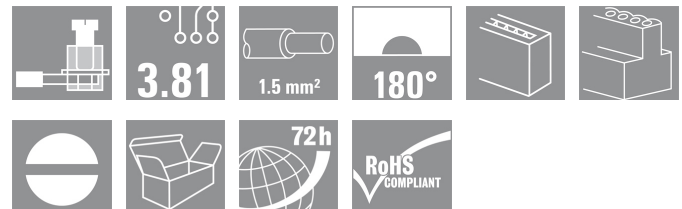


BC/SC 3.81 series
BCZ 3.81/16/180 SN OR BX

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



Female socket connectors with clamping-yoke screw system for connecting wires.

Three wire-outlet directions are available and provide flexible connection-level design options:

- 180° wire parallel to plugging direction
- 90° wire perpendicular and above plugging direction
- 270° wire perpendicular and below plugging direction

There are three housing shapes, covering many different requirements, to choose from:

- Standard housing without flange
- Flange with screw (F)
- Flange featuring Weidmüller's patented release latch (LR) for lock-and-release latching with no strain and no tools needed.

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.

- 0.20 - 1.5 mm² (IEC) / 28 - 16 AWG (UL)
- 250 V (IEC) / 300 V (UL)
- 17.5 A (IEC) / 10 A (UL)

General ordering data

Order No.	1940870000
Type	BCZ 3.81/16/180 SN OR BX
Version	PCB plug-in connector, female plug, 3.81 mm, No. of poles: 16, 180°, Clamping yoke connection, Clamping range, rated connection, max.: 1.5 mm ² , Box
GTIN (EAN)	4032248655960
Qty.	50 pc(s).
Product data	IEC: 320 V / 17.5 A / 0.2 - 1.5 mm ² UL: 300 V / 10 A / AWG 28 - AWG 16
Packaging	Box

Creation date February 20, 2013 9:02:17 PM CET

BC/SC 3.81 series BCZ 3.81/16/180 SN OR BX

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Technical data

Dimensions and weights

Net weight	12.6 g
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System parameters

Product family	BC/SC 3.81 series	Conductor connection system	Clamping yoke connection
Outgoing direction of conductor	180°	Pitch in mm (P)	3.81 mm
Pitch in inches (P)	0.15 inch	No. of poles	16
Number of rows	1	Screwdriver blade	0.4 x 2.5
Screwdriver blade standard	DIN 5264	Tightening torque, min.	0.2 Nm
Tightening torque, max.	0.25 Nm	Clamping screw	M 2
Stripping length	7 mm	L1 in mm	57.15 mm
L1 in inches	2.25 inch	Touch-safe protection acc. to DIN VDE 0470	IP 20
Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch		

Material data

Insulating material	PA GF	Colour	Orange
Colour chart (similar)	RAL 2000	UL 94 flammability rating	V-0
CTI	≥ 550	Contact material	Copper alloy
Contact surface	tinned	Continuous operating temp., min.	-25 °C
Continuous operating temp., max.	120 °C		

Connectable conductors

Clamping range, rated connection, min.	0.08 mm ²	Clamping range, rated connection, max.	1.5 mm ²
Wire connection cross section AWG, min.	AWG 28	Wire connection cross section AWG, max.	AWG 16
Solid, min. H05(07) V-U	0.2 mm ²	Solid, max. H05(07) V-U	1.5 mm ²
Flexible, min. H05(07) V-K	0.2 mm ²	Flexible, max. H05(07) V-K	1.5 mm ²
w. wire end ferrule, DIN 46228 pt 1, min.	0.2 mm ²	w. wire end ferrule, DIN 46228 pt 1, max.	1.5 mm ²
w. plastic collar ferrule, DIN 46228 pt 4, min.	0.2 mm ²	w. plastic collar ferrule, DIN 46228 pt 4, max.	1.5 mm ²
Plug gauge acc. to EN 60999 a x b; Ø	2.4 mm x 1.5 mm ; 2.4 mm		

DIN IEC rating data

Rated current, min. no. of poles (Tu=20°C)	17.5 A	Rated current, max. no. of poles (Tu=20°C)	17.5 A
Rated current, number of poles (Tu=40°C), min	17 A	Rated current, number of poles (Tu=40°C), max.	15.2 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		

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Technical data
CSA rating data

Institute (CSA)



Rated voltage (Use group B)

300 V

Rated current (use group B) 10 A

Rated voltage (use group D) 300 V

Rated current (use group D) 10 A

Wire cross-section, AWG, min. AWG 28

Wire cross-section, AWG, max. AWG 16

UL 1059 rating data

Rated voltage (use group B) 300 V

Rated current (use group B) 10 A

Rated voltage (use group D) 300 V

Rated current (use group D) 10 A

Wire cross-section, AWG, min. AWG 28

Wire cross-section, AWG, max. AWG 16

Classifications

UNSPSC 30-21-18-10

eClass 5.1

27-26-07-04

eClass 6.0 27-26-07-04

eClass 7.0

27-44-04-02

Notes

Notes

- Additional colours on request
- Gold-plated contact surfaces on request
- Rated current related to rated cross-section & min. No. of poles.
- Wire end ferrule without plastic collar to DIN 46228/1
- Wire end ferrule with plastic collar to DIN 46228/4
- 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.

Approvals

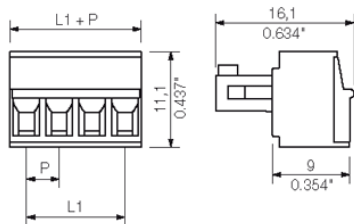
Approvals



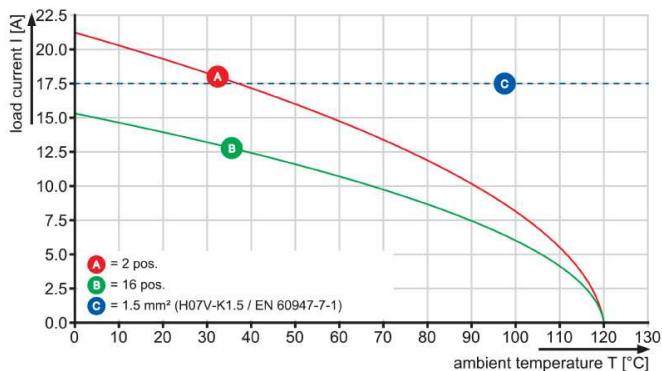
BC/SC 3.81 series BCZ 3.81/16/180 SN OR BX

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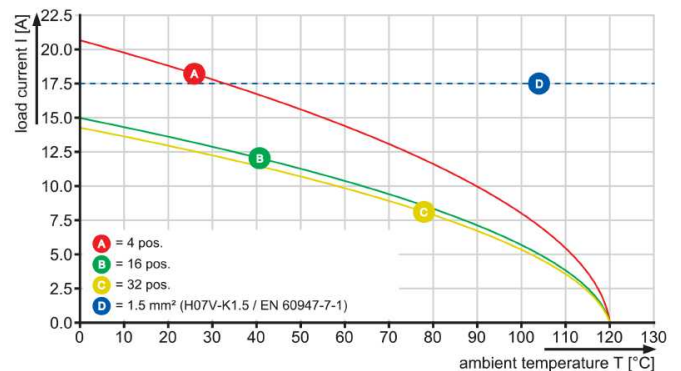
Drawings



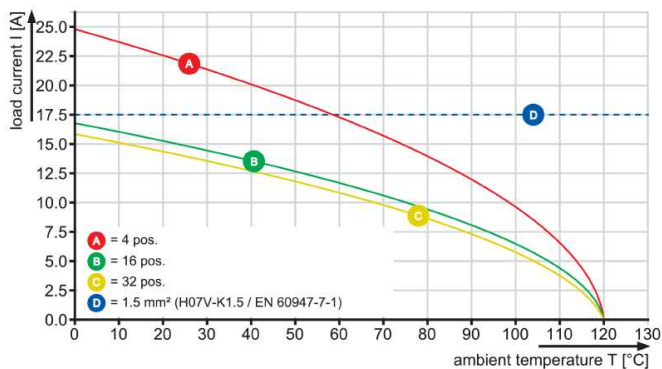
BCZ 3.81/./180 - SC-SMT 3.81/./90



BCZ 3.81/./180 - SCD-THR 3.81/./90



BCZ 3.81/./180 - SCDV-THR 3.81/./180



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Mating connector (conditionally pluggable)

SC-SMT 3.81/90LF Box



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

- Plugging direction parallel to PCB (recumbent)
- With solder flange (LF).
- 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.

- 320 V (IEC) / 300 V (UL)
- 14.9 A (IEC) / 10 A (UL)

General ordering data

Order No.	Type	Version	GTIN (EAN)	Qty.	Product data	Packaging
1862710000	SC-SMT 3.81/16/90LF 1.5SN BK BX	PCB plug-in connector, male header, Solder flange, Reflow solder connection, 3.81 mm, No. of poles: 16, 90°, Solder pin length (l): 1.5 mm, tinned, Black, Box	4032248427932	50 pc(s).	IEC: 320 V / 17.5 A UL: 300 V / 10 A	Box
1863870000	SC-SMT 3.81/16/90LF 3.2SN BK BX	PCB plug-in connector, male header, Solder flange, Reflow solder connection, 3.81 mm, No. of poles: 16, 90°, Solder pin length (l): 3.2 mm, tinned, Black, Box	4032248429097	50 pc(s).	IEC: 320 V / 17.5 A UL: 300 V / 10 A	Box

SC-SMT 3.81/180LF Box



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

- Plugging direction is perpendicular to PCB (standing)
- With solder flange (LF).
- 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.

- 320 V (IEC) / 300 V (UL)
- 14.9 A (IEC) / 10 A (UL)

General ordering data

Order No.	Type	Version	GTIN (EAN)	Qty.	Product data	Packaging
1863480000	SC-SMT 3.81/16/180LF 3.2SN BK BX	PCB plug-in connector, male header, Solder flange, Reflow solder connection, 3.81 mm, No. of poles: 16,	4032248428670	50 pc(s).	IEC: 320 V / 17.5 A UL: 300 V / 10 A	Box

BC/SC 3.81 series BCZ 3.81/16/180 SN OR BX

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Mating connector (conditionally pluggable)

180°, Solder pin length (l):
3.2 mm, tinned, Black, Box

1864210000	SC-SMT 3.81/16/180LF 1.5SN BK BX	PCB plug-in connector, male header, Solder flange, Reflow solder connection, 3.81 mm, No. of poles: 16, 180°, Solder pin length (l): 1.5 mm, tinned, Black, Box	4032248429516 50 pc(s).	IEC: 320 V / 17.5 A UL: 300 V / 10 A	Box
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SC 3.81/180F



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.

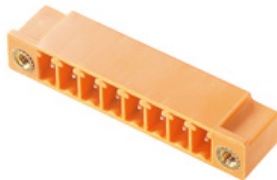
- 320 V (IEC) / 300 V (UL)
- 17.5 A (IEC) / 10 A (UL)

General ordering data

Order No.	Type	Version	GTIN (EAN)	Qty.	Product data	Packaging
1943320000	SC 3.81/16/180F 3.2SN OR BX	PCB plug-in connector, male header, Flange, Solder connection, 3.81 mm, No. of poles: 16, 180°, Solder pin length (l): 3.2 mm, tinned, Orange, Box	4032248654277 50 pc(s).		IEC: 320 V / 17.5 A UL: 300 V / 10 A	Box
1793870000	SC 3.81/16/180F 3.2SN GN BX	PCB plug-in connector, male header, Flange, Solder connection, 3.81 mm, No. of poles: 16, 180°, Solder pin length (l): 3.2 mm, tinned, Pale green, Box	4032248230990 50 pc(s).		IEC: 320 V / 17.5 A UL: 300 V / 10 A	Box
1793780000	SC 3.81/16/180F 3.2SN BK BX	PCB plug-in connector, male header, Flange, Solder connection, 3.81 mm, No. of poles: 16, 180°, Solder pin length (l): 3.2 mm, tinned, Black, Box	4032248230907 50 pc(s).		IEC: 320 V / 17.5 A UL: 300 V / 10 A	Box

BC/SC 3.81 series
BCZ 3.81/16/180 SN OR BX

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Mating connector (conditionally pluggable)
SC 3.81/90F


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.

- 320 V (IEC) / 300 V (UL)
- 17.5 A (IEC) / 10 A (UL)

General ordering data

Order No.	Type	Version	GTIN (EAN)	Qty.	Product data	Packaging
1942590000	SC 3.81/16/90F 3.2SN OR BX	PCB plug-in connector, male header, Flange, Solder connection, 3.81 mm, No. of poles: 16, 90°, Solder pin length (l): 3.2 mm, tinned, Orange, Box	4032248655007	50 pc(s).	IEC: 320 V / 17.5 A UL: 300 V / 10 A	Box
1793500000	SC 3.81/16/90F 3.2SN GN BX	PCB plug-in connector, male header, Flange, Solder connection, 3.81 mm, No. of poles: 16, 90°, Solder pin length (l): 3.2 mm, tinned, Pale green, Box	4032248228775	50 pc(s).	IEC: 320 V / 17.5 A UL: 300 V / 10 A	Box
1793410000	SC 3.81/16/90F 3.2SN BK BX	PCB plug-in connector, male header, Flange, Solder connection, 3.81 mm, No. of poles: 16, 90°, Solder pin length (l): 3.2 mm, tinned, Black, Box	4032248228485	50 pc(s).	IEC: 320 V / 17.5 A UL: 300 V / 10 A	Box

BC/SC 3.81 series BCZ 3.81/16/180 SN OR BX

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Mating connector (fully pluggable)

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.

- 320 V (IEC) / 300 V (UL)
- 17.5 A (IEC) / 10 A (UL)

General ordering data

Order No.	Type	Version	GTIN (EAN)	Qty.	Product data	Packaging
1942840000	SC 3.81/02/180G 3.2SN OR BX	PCB plug-in connector, male header, closed side, Solder connection, 3.81 mm, No. of poles: 2, 180°, Solder pin length (l): 3.2 mm, tinned, Orange, Box	4032248654758	50 pc(s).	IEC: 320 V / 17.5 A UL: 300 V / 10 A	Box
1793610000	SC 3.81/02/180G 3.2SN GN BX	PCB plug-in connector, male header, closed side, Solder connection, 3.81 mm, No. of poles: 2, 180°, Solder pin length (l): 3.2 mm, tinned, Pale green, Box	4032248230730	50 pc(s).	IEC: 320 V / 17.5 A UL: 300 V / 10 A	Box
1793520000	SC 3.81/02/180G 3.2SN BK BX	PCB plug-in connector, male header, closed side, Solder connection, 3.81 mm, No. of poles: 2, 180°, Solder pin length (l): 3.2 mm, tinned, Black, Box	4032248230433	50 pc(s).	IEC: 320 V / 17.5 A UL: 300 V / 10 A	Box

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.

- 320 V (IEC) / 300 V (UL)
- 14.9 A (IEC) / 10 A (UL)

General ordering data

Order No.	Type	Version	GTIN (EAN)	Qty.	Product data	Packaging
1862920000	SC-SMT 3.81/02/180G 3.2SN BK BX	PCB plug-in connector, male header, closed side, Reflow solder connection, 3.81	4032248428113	50 pc(s).	IEC: 320 V / 17.5 A UL: 300 V / 10 A	Box

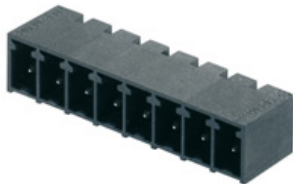
BC/SC 3.81 series BCZ 3.81/16/180 SN OR BX

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Mating connector (fully pluggable)

		mm, No. of poles: 2, 180°, Solder pin length (l): 3.2 mm, tinned, Black, Box		
1863720000	SC-SMT 3.81/02/180G 1.5SN BK BX	PCB plug-in connector, male4032248428793 50 pc(s). header, closed side, Reflow solder connection, 3.81 mm, No. of poles: 2, 180°, Solder pin length (l): 1.5 mm, tinned, Black, Box	IEC: 320 V / 17.5 A UL: 300 V / 10 A	Box

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.

- 320 V (IEC) / 300 V (UL)
- 14.9 A (IEC) / 10 A (UL)

General ordering data

Order No.	Type	Version	GTIN (EAN)	Qty.	Product data	Packaging
1862460000	SC-SMT 3.81/02/90G 3.2SN BK BX	PCB plug-in connector, male4032248427611 50 pc(s). header, closed side, Reflow solder connection, 3.81 mm, No. of poles: 2, 90°, Solder pin length (l): 3.2 mm, tinned, Black, Box			IEC: 320 V / 17.5 A UL: 300 V / 10 A	Box
1862960000	SC-SMT 3.81/02/90G 1.5SN BK BX	PCB plug-in connector, male4032248428069 50 pc(s). header, closed side, Reflow solder connection, 3.81 mm, No. of poles: 2, 90°, Solder pin length (l): 1.5 mm, tinned, Black, Box			IEC: 320 V / 17.5 A UL: 300 V / 10 A	Box

BC/SC 3.81 series BCZ 3.81/16/180 SN OR 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.

- 320 V (IEC) / 300 V (UL)
- 17.5 A (IEC) / 10 A (UL)

General ordering data

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

- 320 V (IEC) / 300 V (UL)
- 14.9 A (IEC) / 10 A (UL)

General ordering data

Order No.	Type	Version	GTIN (EAN)	Qty.	Product data	Packaging
1864050000	SC-SMT 3.81/02/180G 1.5SN BK RL	PCB plug-in connector, male header, closed side, Reflow solder connection, 3.81	4032248429172	300 pc(s).	IEC: 320 V / 17.5 A UL: 300 V / 10 A	Tape

BC/SC 3.81 series
BCZ 3.81/16/180 SN OR BX**Weidmüller Interface GmbH & Co. KG**
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Fax: +49 5231 14-292083
www.weidmueller.com**Mating connector (fully pluggable)**

	mm, No. of poles: 2, 180°, Solder pin length (l): 1.5 mm, tinned, Black, Tape		
1863450000 SC-SMT 3.81/02/180G 3.2SN BK RL	PCB plug-in connector, male4032248428557 300 pc(s). header, closed side, Reflow solder connection, 3.81 mm, No. of poles: 2, 180°, Solder pin length (l): 3.2 mm, tinned, Black, Tape	IEC: 320 V / 17.5 A UL: 300 V / 10 A	Tape

