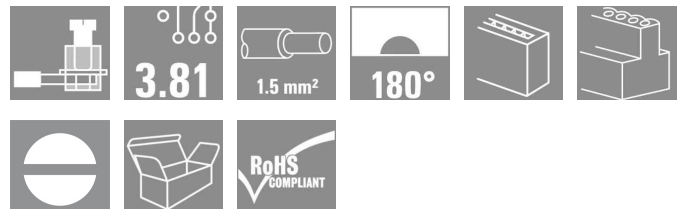


OMNIMATE Signal - series BC/SC 3.81 BCZ 3.81/20/180 SN BK BX

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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

Type	BCZ 3.81/20/180 SN BK BX
Order No.	1941000000
Version	PCB plug-in connector, female plug, 3.81 mm, No. of poles: 20, 180°, Clamping yoke connection, Clamping range, rated connection, max.: 1.5 mm ² , Box
GTIN (EAN)	4032248655847
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 December 16, 2013 2:37:08 PM CET

OMNIMATE Signal - series BC/SC 3.81 BCZ 3.81/20/180 SN BK BX

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Technical data

Dimensions and weights

Net weight	15.76 g
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System parameters

Product family	OMNIMATE Signal - series BC/SC 3.81	Wire connection method	Clamping yoke connection
Conductor outlet direction	180°	Pitch in mm (P)	3.81 mm
Pitch in inches (P)	0.15 inch	No. of poles	20
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	72.39 mm	L1 in inches	2.85 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	Black
Colour chart (similar)	RAL 9011	UL 94 flammability rating	V-0
CTI	≥ 550	Contact material	Cu-Leg
Contact surface	tinned		

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 (T _u =20°C)	17.5 A	Rated current, max. no. of poles (T _u =20°C)	17.5 A
Rated current, number of poles (T _u =40°C), min	17 A	Rated current, number of poles (T _u =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 1 s with 76 A		

**OMNIMATE Signal - series BC/SC 3.81
BCZ 3.81/20/180 SN BK BX**

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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 6.2 27-26-07-04

eClass 7.1

27-44-04-02

Notes

Notes

- Additional colours 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



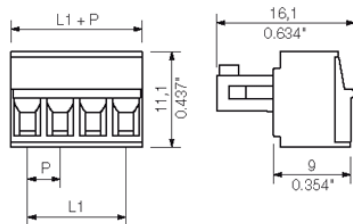
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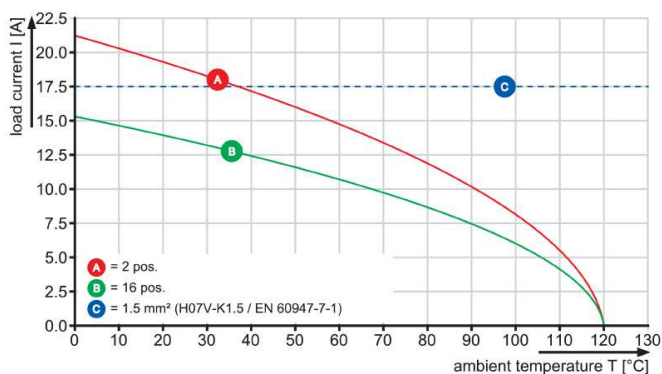
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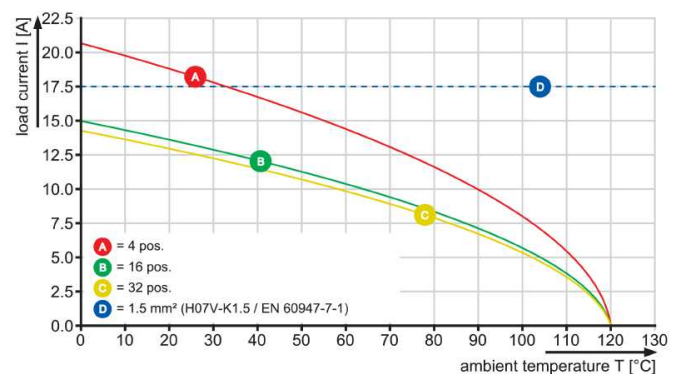
Drawings



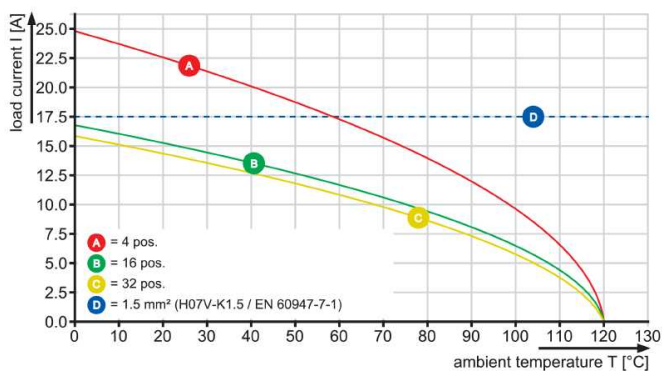
BCZ 3.81/./180 - SC-SMT 3.81/./90



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 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

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
SC 3.81/20/180F 3.2SN OR BX	1943360000	PCB plug-in connector, male header, Flange, Solder connection, 3.81 mm, No. of poles: 20, 180°, Solder pin length (l): 3.2 mm, tinned, Orange, Box	4032248654239	50 pc(s).	IEC: 320 V / 17.5 A UL: 300 V / 10 A	Box
SC 3.81/20/180F 3.2SN BK BX	1943550000	PCB plug-in connector, male header, Flange, Solder connection, 3.81 mm, No. of poles: 20, 180°, Solder pin length (l): 3.2 mm, tinned, Black, Box	4032248654048	50 pc(s).	IEC: 320 V / 17.5 A UL: 300 V / 10 A	Box
SC 3.81/20/180F 3.2SN GN BX	1943460000	PCB plug-in connector, male header, Flange, Solder connection, 3.81 mm, No. of poles: 20, 180°, Solder pin length (l): 3.2 mm, tinned, Pale green, Box	4032248654130	50 pc(s).	IEC: 320 V / 17.5 A UL: 300 V / 10 A	Box

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

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
SC 3.81/20/90F 3.2SN OR BX	1942630000	PCB plug-in connector, male header, Flange, Solder connection, 3.81 mm, No. of poles: 20, 90°, Solder pin length (l): 3.2 mm, tinned, Orange, Box	4032248654963	50 pc(s).	IEC: 320 V / 17.5 A UL: 300 V / 10 A	Box

OMNIMATE Signal - series BC/SC 3.81 BCZ 3.81/20/180 SN BK BX

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Mating connector (conditionally pluggable)

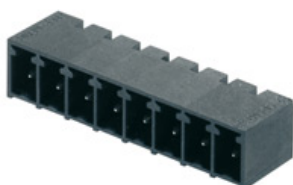
SC 3.81/20/90F 3.2SN GN BX	1942730000	PCB plug-in connector, male header, Flange, Solder connection, 3.81 mm, No. of poles: 20, 90°, Solder pin length (l): 3.2 mm, tinned, Pale green, Box	4032248654864 50 pc(s).	IEC: 320 V / 17.5 A UL: 300 V / 10 A	Box
SC 3.81/20/90F 3.2SN BK BX	1942830000	PCB plug-in connector, male header, Flange, Solder connection, 3.81 mm, No. of poles: 20, 90°, Solder pin length (l): 3.2 mm, tinned, Black, Box	4032248654765 50 pc(s).	IEC: 320 V / 17.5 A UL: 300 V / 10 A	Box

OMNIMATE Signal - series BC/SC 3.81 BCZ 3.81/20/180 SN 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.

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

General ordering data

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
SC-SMT	1862460000	PCB plug-in connector, male	4032248427611	50 pc(s).	IEC: 320 V / 17.5 A	Box
3.81/02/90G		header, closed side, Reflow			UL: 300 V / 10 A	
3.2SN BK BX		solder connection, 3.81 mm, No. of poles: 2, 90°, Solder pin length (l): 3.2 mm, tinned, Black, Box				
SC-SMT	1862960000	PCB plug-in connector, male	4032248428069	50 pc(s).	IEC: 320 V / 17.5 A	Box
3.81/02/90G		header, closed side, Reflow			UL: 300 V / 10 A	
1.5SN BK BX		solder connection, 3.81 mm, No. of poles: 2, 90°, Solder pin length (l): 1.5 mm, tinned, Black, 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

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
SC-SMT	1862920000	PCB plug-in connector, male	4032248428113	50 pc(s).	IEC: 320 V / 17.5 A	Box
3.81/02/180G		header, closed side, Reflow			UL: 300 V / 10 A	
3.2SN BK BX		solder connection, 3.81 mm, No. of poles: 2, 180°,				

OMNIMATE Signal - series BC/SC 3.81 BCZ 3.81/20/180 SN BK BX

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Mating connector (fully pluggable)

		Solder pin length (l): 3.2 mm, tinned, Black, Box		
SC-SMT	1863720000	PCB plug-in connector, male	4032248428793 50 pc(s).	IEC: 320 V / 17.5 A UL: 300 V / 10 A
3.81/02/180G		header, closed side, Reflow		
1.5SN BK BX		solder connection, 3.81 mm, No. of poles: 2, 180°, Solder pin length (l): 1.5 mm, tinned, Black, Box		

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

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

OMNIMATE Signal - series BC/SC 3.81 BCZ 3.81/20/180 SN 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.

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

General ordering data

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
SC 3.81/02/90G 3.2SN BK BX	1793130000	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 3.81/02/90G 3.2SN OR BX	1942020000	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
SC 3.81/02/90G 3.2SN GN BX	1793240000	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

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

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
SC-SMT 3.81/02/180G 3.2SN BK RL	1863450000	PCB plug-in connector, male header, closed side, Reflow solder connection, 3.81	4032248428557	300 pc(s).	IEC: 320 V / 17.5 A UL: 300 V / 10 A	Tape

OMNIMATE Signal - series BC/SC 3.81

BCZ 3.81/20/180 SN BK BX

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Mating connector (fully pluggable)

		mm, No. of poles: 2, 180°, Solder pin length (l): 3.2 mm, tinned, Black, Tape	
SC-SMT	1864050000	PCB plug-in connector, male4032248429172 300 pc(s).	IEC: 320 V / 17.5 A
3.81/02/180G		header, closed side, Reflow	UL: 300 V / 10 A
1.5SN BK RL		solder connection, 3.81 mm, No. of poles: 2, 180°, Solder pin length (l): 1.5 mm, tinned, Black, Tape	Tape