

**OMNIMATE Signal - series BC/SC 3.81
BCZ 3.81/10/180 SN BK BX**
Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 16

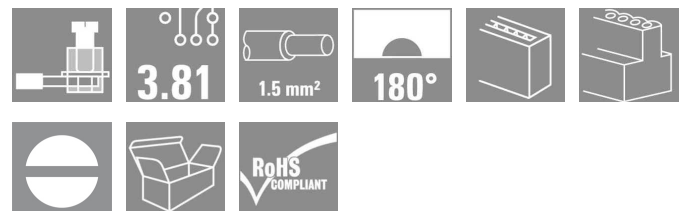
D-32758 Detmold

Germany

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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

Type	BCZ 3.81/10/180 SN BK BX
Order No.	1792830000
Version	PCB plug-in connector, female plug, 3.81 mm, No. of poles: 10, 180°, Clamping yoke connection, Clamping range, rated connection, max.: 1.5 mm ² , Box
GTIN (EAN)	4032248226917
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 July 29, 2013 10:55:27 AM CEST

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Technical data

Dimensions and weights

Net weight 7.92 g

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	10
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	34.29 mm	L1 in inches	1.35 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		

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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

ETIM 3.0

EC001284

UNSPSC

30-21-18-10

eClass 4.1

27-26-07-01

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
- 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



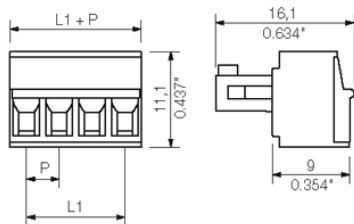
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Conform

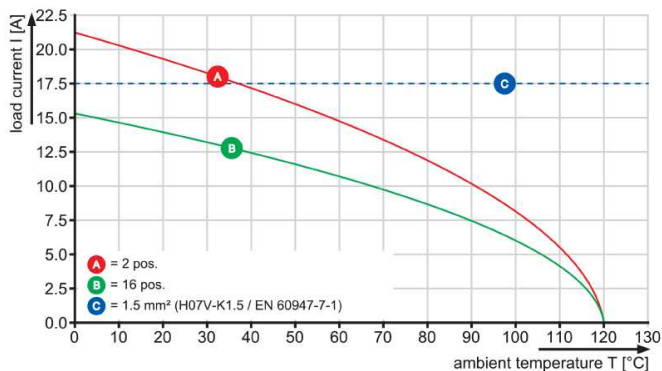
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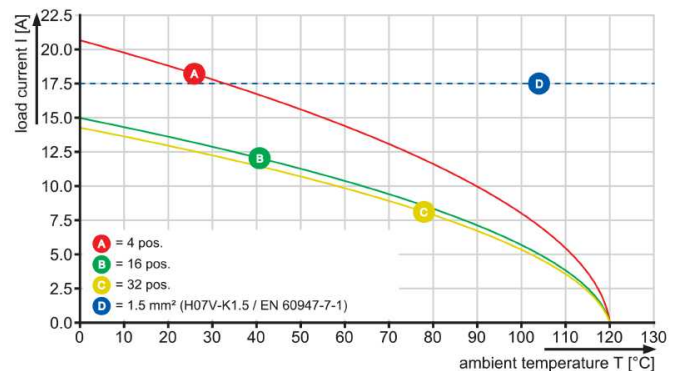
Drawings



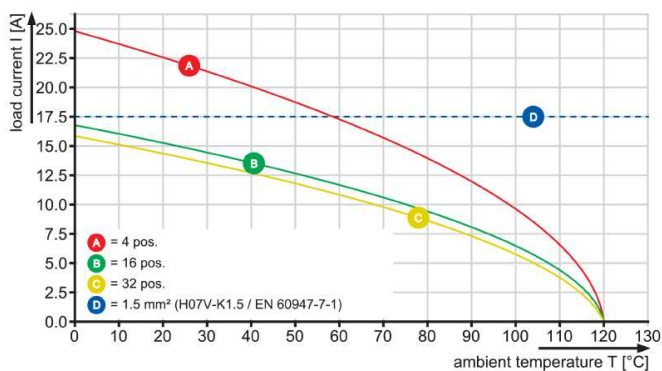
BCZ 3.81/./180 - SC-SMT 3.81/./90



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



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



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Mating connector (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.

- 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°, 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	Box
3.81/02/180G		header, closed side, Reflow			UL: 300 V / 10 A	
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 3.81/90G



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	1793240000	PCB plug-in connector, male	4032248227716	50 pc(s).	IEC: 320 V / 17.5 A	Box
3.81/02/90G		header, closed side, Solder			UL: 300 V / 10 A	
3.2SN GN BX		connection, 3.81 mm, No. of poles: 2, 90°, Solder pin length (l): 3.2 mm, tinned, Pale green, Box				
SC	1942020000	PCB plug-in connector, male	4032248655526	50 pc(s).	IEC: 320 V / 17.5 A	Box
3.81/02/90G		header, closed side, Solder			UL: 300 V / 10 A	
3.2SN OR BX		connection, 3.81 mm, No.				

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Mating connector (fully pluggable)

		of poles: 2, 90°, Solder pin length (l): 3.2 mm, tinned, Orange, Box		
SC	1793130000	PCB plug-in connector, male	4032248227624 50 pc(s).	IEC: 320 V / 17.5 A UL: 300 V / 10 A
3.81/02/90G		header, closed side, Solder connection, 3.81 mm, No. of poles: 2, 90°, Solder pin length (l): 3.2 mm, tinned, Black, Box		Box
3.2SN BK BX				

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

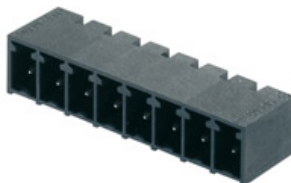
Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
SC	1793520000	PCB plug-in connector, male	4032248230433	50 pc(s).	IEC: 320 V / 17.5 A UL: 300 V / 10 A	Box
3.81/02/180G		header, closed side, Solder connection, 3.81 mm, No. of poles: 2, 180°, Solder pin length (l): 3.2 mm, tinned, Black,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

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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 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	1863450000	PCB plug-in connector, male	4032248428557	300 pc(s).	IEC: 320 V / 17.5 A	Tape
3.81/02/180G		header, closed side, Reflow			UL: 300 V / 10 A	
3.2SN BK RL		solder connection, 3.81 mm, No. of poles: 2, 180°				

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Mating connector (fully pluggable)

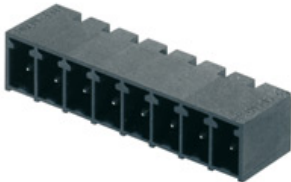
		Solder pin length (l): 3.2 mm, tinned, Black, Tape		
SC-SMT	1864050000	PCB plug-in connector, male4032248429172 300 pc(s).	IEC: 320 V / 17.5 A	Tape
3.81/02/180G		header, closed side, Reflow	UL: 300 V / 10 A	
1.5SN BK RL		solder connection, 3.81 mm, No. of poles: 2, 180°, Solder pin length (l): 1.5 mm,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

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Mating connector (conditionally pluggable)

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.

- 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	1863220000	PCB plug-in connector, male	4032248428410	400 pc(s).	IEC: 320 V / 17.5 A	Tape
3.81/10/90G		header, closed side, Reflow			UL: 300 V / 10 A	
1.5SN BK RL		solder connection, 3.81 mm, No. of poles: 10, 90°, Solder pin length (l): 1.5 mm, tinned, Black, Tape				
SC-SMT	1862930000	PCB plug-in connector, male	4032248428052	400 pc(s).	IEC: 320 V / 17.5 A	Tape
3.81/10/90G		header, closed side, Reflow			UL: 300 V / 10 A	
3.2SN BK RL		solder connection, 3.81 mm, No. of poles: 10, 90°, Solder pin length (l): 3.2 mm, tinned, Black, Tape				

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

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
SC-SMT	1862650000	PCB plug-in connector,	4032248427864	50 pc(s).	IEC: 320 V / 17.5 A	Box
3.81/10/90LF		male header, Solder flange,			UL: 300 V / 10 A	
1.5SN BK BX		Reflow solder connection, 3.81 mm, No. of poles: 10,				

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Mating connector (conditionally pluggable)

SC-SMT 3.81/10/90LF 3.2SN BK BX	1863790000	90°, Solder pin length (l): 1.5 mm, tinned, Black, Box	4032248429035 50 pc(s). IEC: 320 V / 17.5 A UL: 300 V / 10 A	Box
		PCB plug-in connector, male header, Solder flange, Reflow solder connection, 3.81 mm, No. of poles: 10, 90°, Solder pin length (l): 3.2 mm, tinned, Black, 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

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
SC-SMT 3.81/10/180LF 1.5SN BK BX	1864150000	PCB plug-in connector, male header, Solder flange, Reflow solder connection, 3.81 mm, No. of poles: 10, 180°, Solder pin length (l): 1.5 mm, tinned, Black, Box	4032248429455 50 pc(s).		IEC: 320 V / 17.5 A UL: 300 V / 10 A	Box
SC-SMT 3.81/10/180LF 3.2SN BK BX	1863380000	PCB plug-in connector, male header, Solder flange, Reflow solder connection, 3.81 mm, No. of poles: 10, 180°, Solder pin length (l): 3.2 mm, tinned, Black, Box	4032248428618 50 pc(s).		IEC: 320 V / 17.5 A UL: 300 V / 10 A	Box

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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

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
SC 3.81/10/90F 3.2SN BK BX	1793390000	PCB plug-in connector, male header, Flange, Solder connection, 3.81 mm, No. of poles: 10, 90°, Solder pin length (l): 3.2 mm, tinned, Black, Box	4032248228461	50 pc(s).	IEC: 320 V / 17.5 A UL: 300 V / 10 A	Box
SC 3.81/10/90F 3.2SN OR BX	1942530000	PCB plug-in connector, male header, Flange, Solder connection, 3.81 mm, No. of poles: 10, 90°, Solder pin length (l): 3.2 mm, tinned, Orange, Box	4032248655069	50 pc(s).	IEC: 320 V / 17.5 A UL: 300 V / 10 A	Box
SC 3.81/10/90F 3.2SN GN BX	1793480000	PCB plug-in connector, male header, Flange, Solder connection, 3.81 mm, No. of poles: 10, 90°, Solder pin length (l): 3.2 mm, tinned, Pale green, Box	4032248228751	50 pc(s).	IEC: 320 V / 17.5 A UL: 300 V / 10 A	Box

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.

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- 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 3.81/10/180F 3.2SN GN BX	1793850000	PCB plug-in connector, male header, Flange, Solder connection, 3.81 mm, No. of poles: 10, 180°, Solder pin length (l): 3.2 mm, tinned, Pale green, Box	4032248230976	50 pc(s).	IEC: 320 V / 17.5 A UL: 300 V / 10 A	Box

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SC 3.81/10/180F 3.2SN BK BX	1793760000	PCB plug-in connector, male header, Flange, Solder connection, 3.81 mm, No. of poles: 10, 180°, Solder pin length (l): 3.2 mm, tinned, Black, Box	4032248230884 50 pc(s).	IEC: 320 V / 17.5 A UL: 300 V / 10 A	Box
SC 3.81/10/180F 3.2SN OR BX	1943260000	PCB plug-in connector, male header, Flange, Solder connection, 3.81 mm, No. of poles: 10, 180°, Solder pin length (l): 3.2 mm, tinned, Orange, Box	4032248654338 50 pc(s).	IEC: 320 V / 17.5 A UL: 300 V / 10 A	Box

