



Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold Germany

www.weidmueller.com

Product image























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.

General ordering data

Version	PCB plug-in connector, female plug, 3.81 mm, Number of poles: 14, 270°, Clamping yoke con- nection, Clamping range, max.: 1.5 mm², Box
Order No.	<u>1940710000</u>
Туре	BCZ 3.81/14/270F SN BK BX
GTIN (EAN)	4032248656127
Qty.	50 items
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





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Technical data

Approvals

Approvals



ROHS	Conform
UL File Number Search	<u>UL Website</u>
Certificate No. (cURus)	E60693

Dimensions and weights

Depth	19.1 mm	Depth (inches)	0.752 inch
Height	10.5 mm	Height (inches)	0.4134 inch
Width	63.76 mm	Width (inches)	2.5102 inch
Net weight	13.44 g		

Environmental Product Compliance

RoHS Compliance Status	Compliant with exemption
RoHS Exemption (if applicable/known)	6c
REACH SVHC	Lead 7439-92-1
SCIP	ea9dd4b8-c51f-409c-885a-41700372be61

System Parameters

Product family	OMNIMATE Signal - series BC/SC 3.81			
Type of connection	Field connection			
Wire connection method	Clamping yoke connection			
Pitch in mm (P)	3.81 mm			
Pitch in inches (P)	0.150 "			
Conductor outlet direction	270°			
Number of poles	14			
L1 in mm	49.53 mm			
L1 in inches	1.950 "			
Number of rows	1			
Pin series quantity	1			
Rated cross-section	1 mm ²			
Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch			
Touch-safe protection acc. to DIN VDE 0470	IP20 plugged/ IP10 unplugged			
Volume resistance	≤5 mΩ			
Can be coded	Yes			
Stripping length	7 mm			
Clamping screw	M 2			
Screwdriver blade	0.4 x 2.5			
Screwdriver blade standard	DIN 5264			
Plugging cycles	25			
Plugging force/pole, max.	7 N			
Pulling force/pole, max.	5 N			
Tightening torque	Torque type	Wire connection		
	Usage information	Tightening torque	min.	0.2 Nm
			max.	0.25 Nm
	Torque type	Screw flange		
	Usage information	Tightening torque	min.	0.15 Nm
			max.	0.2 Nm

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M	ate	rıa	Ιd	ata

Insulating material	PA 66 GF 30	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	II
Comparative Tracking Index (CTI)	≥ 550	Moisture Level (MSL)	
UL 94 flammability rating	V-0	Contact material	Cu-alloy
Contact surface	tinned	Layer structure of plug contact	0.51.5 μm Cu / 25 μm Sn
Storage temperature, min.	-40 °C	Storage temperature, max.	70 °C
Operating temperature, min.	-50 °C	Operating temperature, max.	120 °C
Temperature range, installation, min.	-25 °C	Temperature range, installation, max.	120 °C

Conductors suitable for conn	ection		
Clamping range, min.	0.08 mm ²		
Clamping range, max.	1.5 mm²		
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. plastic collar ferrule, DIN 46228 pt min.	4, 0.2 mm²		
w. plastic collar ferrule, DIN 46228 pt max.			
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		
Plug gauge in accordance with EN 60999 a x b; ø	2.4 mm x 1.5 mm		
Clampable conductor	Cross-section for conductor connection	Туре	fine-wired
		nominal	0.5 mm ²
	wire end ferrule	Stripping length	nominal 6 mm
		Recommended wire- end ferrule	<u>H0,5/6</u>
	Cross-section for conductor connection	Type	fine-wired
		nominal	0.75 mm ²
	wire end ferrule	Stripping length	nominal 6 mm
		Recommended wire- end ferrule	H0,75/6
	Cross-section for conductor connection	Туре	fine-wired
		nominal	1 mm ²
	wire end ferrule	Stripping length	nominal 6 mm
		Recommended wire- end ferrule	H1,0/6
	Cross-section for conductor connection	Туре	fine-wired
		nominal	1.5 mm ²
	wire end ferrule	Stripping length	nominal 7 mm
		Recommended wire- end ferrule	H1,5/7
Reference text	The outside diameter of the plastic collar shows is to be chosen depending on the product and		tch (P), Length of fer





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Technical data

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)	15.9 A	Rated current, min. number of poles (Tu=40°C)	17.5 A	
Rated current, max. number of poles (Tu=40°C)	14.1 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	

Rated data acc. to CSA

Institute (CSA)	CSA	Certificate No. (CSA)	200039-1121690
Rated voltage (Use group B / CSA)	300 V	Rated voltage (Use group C / CSA)	50 V
Rated current (Use group B / CSA)	8 A	Rated current (Use group C / CSA)	8 A
Wire cross-section, AWG, min.	AWG 28	Wire cross-section, AWG, max.	AWG 16
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Rated data acc. to UL 1059

Institute (cURus)	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
Wire cross-section, AWG, min.	AWG 28	Wire cross-section, AWG, max.	AWG 16
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Packing

Packaging	Box	VPE length	60.00 mm
VPE width	70.00 mm	VPE height	215.00 mm

Type tests

Test: Durability of markings	Standard	DIN EN 61984 section 7.3.2 / 09.02 taking pattern from DIN EN 60068-2-70 / 07.96
	Test	mark of origin, type identification, rated voltage, rated cross-section, pitch, type of material, approval marking UL, approval marking CSA
	Evaluation	available
	Test	durability
	Evaluation	passed
Test: Misengagement (Non- interchangeability)	Standard	DIN EN 61984 section 6.3 and 6.9.1 / 09.02, DIN EN 60512-13-5 / 11.06
	Test	180° turned without coding elements
	Evaluation	passed
	Test	visual examination
	Evaluation	passed
Test: Clampable cross section	Standard	DIN EN 60999-1 section 7 and 9.1 / 12.00, DIN EN 60947-1 section 8.2.4.5.1 / 12.02

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Technical data

	Conductor type	Type of conductor solid 0.08 mm ² and conductor cross-section
		Type of conductor stranded 0.08 mm ² and conductor cross-section
		Type of conductor solid 1.5 mm ² and conductor cross-section
		Type of conductor stranded 1.5 mm ² and conductor cross-section
		Type of conductor AWG 28/1 and conductor cross-section
		Type of conductor AWG 28/19 and conductor cross-section
		Type of conductor AWG 16/1 and conductor cross-section
		Type of conductor AWG 16/19 and conductor cross-section
	Evaluation	passed
st for damage to and accidental	Standard	DIN EN 60999-1 section 9.4 / 12.00
osening of conductors	Requirement	0.2 kg
	Conductor type	Type of conductor stranded 0.25 mm ² and conductor cross-section
		Type of conductor AWG 28/1 and conductor cross-section
		Type of conductor AWG 28/19 and conductor cross-section
	Evaluation	passed
	Requirement	0.3 kg
	Conductor type	Type of conductor solid 0.5 mm ² and conductor cross-section
	Evaluation	passed
	Requirement	0.4 kg
	Conductor type	Type of conductor solid 1.5 mm ² and conductor cross-section
		Type of conductor stranded 1.5 mm ² and conductor cross-section
		Type of conductor AWG 16/1 and conductor cross-section
		Type of conductor AWG 16/19 and conductor cross-section
	Evaluation	passed
ll-out test	Standard	DIN EN 60999-1 section 9.5 / 12.00
	Requirement Conductor type	≥10 N Type of conductor stranded 0.25 mm² and conductor cross- section
		Type of conductor AWG 28/1 and conductor cross-section



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Technical data

	Type of conductor and conductor cross-section	AWG 28/19
Evaluation	passed	
Requirement	≥20 N	
Conductor type	Type of conductor and conductor cross-section	H05V-U0.5
Evaluation	passed	
Requirement	≥40 N	
Conductor type	Type of conductor and conductor cross-section	H07V-U1.5
	Type of conductor and conductor cross-section	H07V-K1.5
	Type of conductor and conductor cross-section	AWG 16/1
	Type of conductor and conductor cross-section	AWG 16/19
Evaluation	passed	

Important note

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.

Notes

- Additional variants 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.
- In accordance with IEC 61984, OMNIMATE-connectors are connectors without breaking capacity (COC). During designated use, connectors are not allowed to be engaged or disengaged when live or under load
- Long term storage of the product with average temperature of 50 $^{\circ}$ C and maximum humidity 70%, 36 months

Classifications

ETIM 6.0	EC002638	ETIM 7.0	EC002638
ETIM 8.0	EC002638	ETIM 9.0	EC002638
ETIM 10.0	EC002638	ECLASS 9.0	27-44-03-09
ECLASS 9.1	27-44-03-09	ECLASS 10.0	27-44-03-09
ECLASS 11.0	27-46-02-02	ECLASS 12.0	27-46-02-02
ECLASS 13.0	27-46-02-02	ECLASS 14.0	27-46-02-02
ECLASS 15.0	27-46-02-02		



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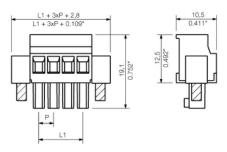
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Drawings

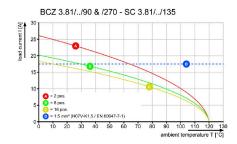
Product image

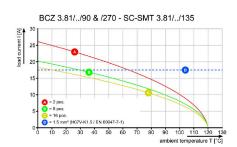


Dimensional drawing

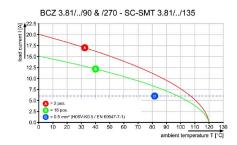


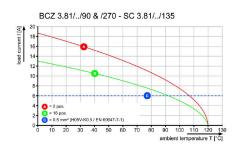
Graph Graph





Graph Graph







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Counterpart

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

Туре	SC 3.81/14/90G 3.2SN OR	Version
Order No.	1942190000	PCB plug-in connector, male header, closed side, THT solder
GTIN (EAN)	4032248655403	connection, 3.81 mm, Number of poles: 14, 90°, Solder pin length (I):
Qty.	30 ST	3.2 mm, tinned, orange, Box
Туре	SC 3.81/14/90G 3.2SN BK	Version
Type Order No.	SC 3.81/14/90G 3.2SN BK 1942390000	Version PCB plug-in connector, male header, closed side, THT solder
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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-onreel, 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

Туре	SC-SMT 3.81/14/180G 3.2	Version
Order No.	<u>1863370000</u>	PCB plug-in connector, male header, closed side, THT/THR solder
GTIN (EAN)	4032248428526	connection, 3.81 mm, Number of poles: 14, 180°, Solder pin length
Qty.	50 ST	(I): 3.2 mm, tinned, black, 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-onreel, 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.

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Counterpart

General ordering data

Type	SC-SMT 3.81/14/90G 1.5S	Version
Order No.	1863110000	PCB plug-in connector, male header, closed side, THT/THR solder
GTIN (EAN)	4032248428304	connection, 3.81 mm, Number of poles: 14, 90°, Solder pin length (I):
Qty.	50 ST	1.5 mm, tinned, black, Box
Туре	SC-SMT 3.81/14/90G 3.2S	Version
Type Order No.	SC-SMT 3.81/14/90G 3.2S 1862760000	Version PCB plug-in connector, male header, closed side, THT/THR solder

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

Туре	SC-SMT 3.81/14/180G 1.5	Version
Order No.	1863960000	PCB plug-in connector, male header, closed side, THT/THR solder
GTIN (EAN)	4032248429134	connection, 3.81 mm, Number of poles: 14, 180°, Solder pin length
Qty.	50 ST	(I): 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.

General ordering data

Туре	SC 3.81/14/180G 3.2SN G	Version
Order No.	1821000000	PCB plug-in connector, male header, closed side, THT solder
GTIN (EAN)	4032248318674	connection, 3.81 mm, Number of poles: 14, 180°, Solder pin length
Qty.	30 ST	(I): 3.2 mm, tinned, Pale green, Box

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Counterpart

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

Туре	SC 3.81/14/90G 3.2SN GN	Version
Order No.	1808990000	PCB plug-in connector, male header, closed side, THT solder
GTIN (EAN)	4032248283125	connection, 3.81 mm, Number of poles: 14, 90°, Solder pin length (I):
Qty.	30 ST	3.2 mm, tinned, Pale green, 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.

General ordering data

Type	SC 3.81/14/180G 3.2SN B	Version
Order No.	<u>1943120000</u>	PCB plug-in connector, male header, closed side, THT solder
GTIN (EAN)	4032248654475	connection, 3.81 mm, Number of poles: 14, 180°, Solder pin length
Qty.	30 ST	(I): 3.2 mm, tinned, black, Box
T		
Type	SC 3.81/14/180G 3.2SN O	Version
Order No.	SC 3.81/14/180G 3.2SN O 1942960000	Version PCB plug-in connector, male header, closed side, THT solder
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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.

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Counterpart

General ordering data

Туре	SC 3.81/14/90F 3.2SN OR	Version
Order No.	<u>1942570000</u>	PCB plug-in connector, male header, Flange, THT solder connection,
GTIN (EAN)	4032248655021	3.81 mm, Number of poles: 14, 90°, Solder pin length (I): 3.2 mm,
Qty.	24 ST	tinned, orange, Box

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-onreel, 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.

General ordering data

Туре	SC-SMT 3.81/14/90LF 3.2	Version
Order No.	1863850000	PCB plug-in connector, male header, Solder flange, THT/THR solder
GTIN (EAN)	4032248429073	connection, 3.81 mm, Number of poles: 14, 90°, Solder pin length (I):
Qty.	50 ST	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-onreal BI)
- 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.

General ordering data

Туре	SC-SMT 3.81/14/180LF 1	Version
Order No.	1864190000	PCB plug-in connector, male header, Solder flange, THT/THR solder
GTIN (EAN)	4032248429493	connection, 3.81 mm, Number of poles: 14, 180°, Solder pin length
Qty.	50 ST	(I): 1.5 mm, tinned, black, Box
Type	SC-SMT 3.81/14/180LF 3	Version
Type Order No.	SC-SMT 3.81/14/180LF 3 1863440000	Version PCB plug-in connector, male header, Solder flange, THT/THR solder
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Counterpart

SC 3.81/90F



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General ordering data

Туре	SC 3.81/14/90F 3.2SN GN	Version
Order No.	<u>1942680000</u>	PCB plug-in connector, male header, Flange, THT solder connection,
GTIN (EAN)	4032248654918	3.81 mm, Number of poles: 14, 90°, Solder pin length (I): 3.2 mm,
Qty.	50 ST	tinned, Pale green, Box
Туре	SC 3.81/14/90F 3.2SN BK	Version
Type Order No.	SC 3.81/14/90F 3.2SN BK 1942780000	Version PCB plug-in connector, male header, Flange, THT solder connection,
	, ,	

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.

General ordering data

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Туре	SC 3.81/14/180F 3.2SN B	Version
Order No.	<u>1943500000</u>	PCB plug-in connector, male header, Flange, THT solder connection,
GTIN (EAN)	4032248654093	3.81 mm, Number of poles: 14, 180°, Solder pin length (I): 3.2 mm,
Qty.	24 ST	tinned, black, Box
Туре	SC 3.81/14/180F 3.2SN G	Version
Order No.	<u>1943410000</u>	PCB plug-in connector, male header, Flange, THT solder connection,
GTIN (EAN)	4032248654185	3.81 mm, Number of poles: 14, 180°, Solder pin length (I): 3.2 mm,
Qty.	50 ST	tinned, Pale green, Box
Туре	SC 3.81/14/180F 3.2SN O	Version
Order No.	<u>1943300000</u>	PCB plug-in connector, male header, Flange, THT solder connection,
GTIN (EAN)	4032248654291	3.81 mm, Number of poles: 14, 180°, Solder pin length (I): 3.2 mm,
Qty.	24 ST	tinned, orange, Box

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