



Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold Germany

www.weidmueller.com

Product image













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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 toolfree, no-strain disconnect

The SCZ provides space for labelling and can be coded.

General ordering data

Version	PCB plug-in connector, male plug, 3.81 mm, Number of poles: 2, 180°, Clamping yoke connection, Clamping range, max.: 1.5 mm², Box
Order No.	<u>2442050000</u>
Туре	SCZ 3.81/02/180LR SN OR BX
GTIN (EAN)	4050118543742
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	Вох





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Technical data

Approvals

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Approvals	

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ROHS	Conform

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

Dimensions and weights

Depth	21.9 mm	Depth (inches)	0.8622 inch
Height	15.2 mm	Height (inches)	0.5984 inch
Net weight	5.12 g		

Environmental Product Compliance

RoHS Compliance Status	Compliant with exemption
RoHS Exemption (if applicable/known)	6c
REACH SVHC	Lead 7439-92-1
SCIP	cec56c8c-fe86-40ec-b01a-efe288a878ac

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	180°			
Number of poles	2			
L1 in mm	3.81 mm			
L1 in inches	0.150 "			
Number of rows	1			
Pin series quantity	1			
Rated cross-section	1 mm²			
Touch-safe protection acc. to DIN VDE 57 106	finger-safe plugged/ back-of-hand-safe unp	lugged		
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.	8 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

Material data

Insulating material	PA 66 GF 30	Colour	orange
Colour chart (similar)	RAL 2000	Insulating material group	II

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Comparative Tracking Index (CTI)	≥ 550	Moisture Level (MSL)	
UL 94 flammability rating	V-0	Contact material	Copper alloy
Contact surface	tinned	Layer structure of plug contact	48 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 connection

Clamping range, min.	0.08 mm ²		
Clamping range, max.	1.5 mm²		
Wire connection cross section AWG,	AWG 28		
min.			
Wire connection cross section AWG,	AWG 16		
max.			
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	4, 0.2 mm ²		
min.			
w. plastic collar ferrule, DIN 46228 pt	4, 1.5 mm ²		
max.			
w. wire end ferrule, DIN 46228 pt 1,	0.2 mm ²		
min.			
w. wire end ferrule, DIN 46228 pt 1,	1.5 mm ²		
max.			
Plug gauge in accordance with EN 60999 a x b; ø	2.4 mm x 1.5 mm ; 2.4 mm		
Clampable conductor	Cross-section for conductor connection	Туре	fine-wired
		nominal	0.5 mm ²
	wire and forrula	Stripping length	nominal 6 mm

60999 a x b; ø			
Clampable conductor	Cross-section for conductor connection	Туре	fin
		n a main a l	

Cross-section for conductor connection	Type	fine-wired	
	nominal	0.5 mm ²	
wire end ferrule	Stripping length	nominal	6 mm
	Recommended wire- end ferrule	H0,5/6	
Cross-section for conductor connection	Туре	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 mm²	
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	
The outside diameter of the plastic collar should	not be larger than the pi	tch (P), Leng	th of ferrules

Reference text is to be chosen depending on the product and the rated voltage.

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

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Rated current, max. number of poles 15.2 A (Tu=40°C)	Rated voltage for surge voltage class / 320 V pollution degree II/2
Rated voltage for surge voltage class / 160 V pollution degree III/2	Rated voltage for surge voltage class / 160 V pollution degree III/3
Rated impulse voltage for surge voltage 2.5 kV class/ pollution degree II/2	Rated impulse voltage for surge voltage 2.5 kV class/ pollution degree III/2
Rated impulse voltage for surge voltage 2.5 kV class/ contamination degree III/3	Short-time withstand current resistance 3 x 1s with 76 A

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)	10 A	Rated current (Use group C / CSA)	10 A
Wire cross-section, AWG, min.	AWG 28	Wire cross-section, AWG, max.	AWG 16

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	260.00 mm
VPE width	209.00 mm	VPE height	30.00 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, EN 60947-1 section 8.2.4.5.1 / 12.02	
	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	



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		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
est 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 mm² 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
ıll-out test	Standard	DIN EN 60999-1 section 9.5 / 12.00
	Requirement	≥10 N
	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	≥20 N
	Conductor type	Type of conductor H05V-U0.5 and conductor cross- section
	Evaluation	passed
	Requirement	≥40 N



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Technical data

Conductor type	Type of conductor H07V-U1.5 and conductor cross-section
	Type of conductor H07V-K1.5 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

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 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
- \bullet Long term storage of the product with average temperature of 50 °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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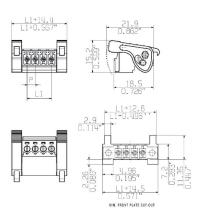
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Drawings

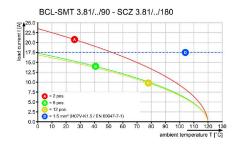
Product image

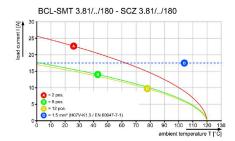


Dimensional drawing



Graph Graph





Graph

