



Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold Germany

www.weidmueller.com

Product image













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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.

General ordering data

Version	PCB plug-in connector, female plug, 3.81 mm,
	Number of poles: 6, 180°, Clamping yoke connec-
	tion, Clamping range, max. : 1.5 mm ² , Box
Order No.	<u>1236280000</u>
Туре	BCZ 3.81/06/180ZE SN OR BX
GTIN (EAN)	4050118021592
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

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Approvals	c F11 *us
ROHS	Conform
UL File Number Search	<u>UL Website</u>
Certificate No. (cURus)	E60693

Dimensions and weights

Depth	39.8 mm	Depth (inches)	1.5669 inch
Height	12.5 mm	Height (inches)	0.4921 inch
Width	22.95 mm	Width (inches)	0.9035 inch
Net weight	5.88 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	180°			
Number of poles	6			
L1 in mm	19.05 mm			
L1 in inches	0.750 "			
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			
Protection degree	IP20			
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





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Material data

PA 66 GF 30	Colour	orange
RAL 2000	Insulating material group	II
≥ 550	Moisture Level (MSL)	
V-0	Contact material	Cu-alloy
tinned	Layer structure of plug contact	0.51.5 μm Cu / 25 μm Sn
-40 °C	Storage temperature, max.	70 °C
-50 °C	Operating temperature, max.	120 °C
-25 °C	Temperature range, installation, max.	120 °C
	RAL 2000 ≥ 550 V-0 tinned -40 °C -50 °C	RAL 2000 Insulating material group ≥ 550 Moisture Level (MSL) V-0 Contact material Layer structure of plug contact -40 °C Storage temperature, max. -50 °C Operating temperature, max.

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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Rated impulse voltage for surge voltage 2.5 kV

Short-time withstand current resistance 3 x 1s with 76 A

class/ pollution degree III/2

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)	17.5 A	Rated current, min. number of poles (Tu=40°C)	17 A
Rated current, max. number of poles (Tu=40°C)	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

class/ contaminat	ion degree III/3
Rated data ac	c. to CSA

class/ pollution degree II/2

Rated impulse voltage for surge voltage 2.5 kV

Rated impulse voltage for surge voltage 2.5 kV

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

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	168.00 mm
VPE width	123.00 mm	VPE height	51.00 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	
	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	

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Technical data

		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	≥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





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Conductor type	Type of conductor H05V-U0.5 and conductor cross-section		
Evaluation	passed		
Requirement	≥40 N		
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 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 °C and maximum humidity 70%, 36 months

Classifications

	<u>'</u>		
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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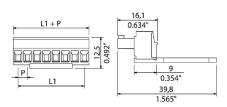
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Drawings

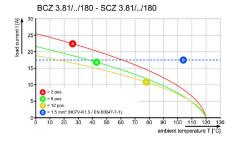
Product image

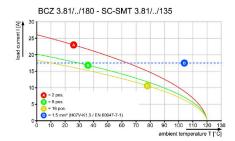


Dimensional drawing



Graph Graph





Graph

