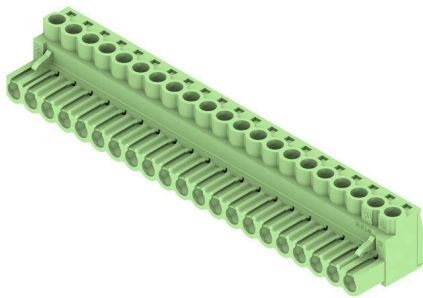


## BLZP 5.08HC/21/180 SN GN BX

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 26  
 D-32758 Detmold  
 Germany

www.weidmueller.com

### Product image



Female plug with clamping-yoke screw system for connecting wires with straight (180°) outlet direction. The female connectors provide space for labelling and can be coded. Fastened by means of a flange or release latch. They also provide an integrated plus/minus screw, protection against faulty insertion of the wire, and they are delivered with open clamping yokes. HC = High Current.

### General ordering data

Version	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 21, 180°, Clamping yoke connection, Clamping range, max. : 4 mm², Box
Order No.	<a href="#">2018090000</a>
Type	BLZP 5.08HC/21/180 SN GN BX
GTIN (EAN)	4050118401622
Qty.	12 items
Product data	IEC: 400 V / 23 A / 0.2 - 4 mm² UL: 300 V / 20 A / AWG 26 - AWG 12
Packaging	Box

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## Technical data

### Approvals

Approvals



ROHS Conform  
 UL File Number Search [UL Website](#)  
 Certificate No. (cURus) E60693

### Dimensions and weights

Depth	20.1 mm	Depth (inches)	0.7913 inch
Height	16 mm	Height (inches)	0.6299 inch
Width	106.68 mm	Width (inches)	4.2 inch
Net weight	32.67 g		

### Environmental Product Compliance

RoHS Compliance Status Compliant without exemption  
 REACH SVHC No SVHC above 0.1 wt%

### System Parameters

Product family	OMNIMATE Signal - series BL/SL 5.08		
Type of connection	Field connection		
Wire connection method	Clamping yoke connection		
Pitch in mm (P)	5.08 mm		
Pitch in inches (P)	0.200 "		
Conductor outlet direction	180°		
Number of poles	21		
L1 in mm	101.60 mm		
L1 in inches	4.000 "		
Number of rows	1		
Pin series quantity	1		
Rated cross-section	4 mm <sup>2</sup>		
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 2.5		
Screwdriver blade	0.6 x 3.5, PH 1, PZ 1		
Screwdriver blade standard	DIN 5264, ISO 8764/2-PH, ISO 8764/2-PZ		
Plugging cycles	25		
Plugging force/pole, max.	10 N		
Pulling force/pole, max.	9 N		
Tightening torque	Torque type	Wire connection	
	Usage information	Tightening torque	min. 0.4 Nm max. 0.5 Nm

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## Technical data

### Material data

Insulating material	PBT	Colour	Pale green
Colour chart (similar)	RAL 6021	Insulating material group	Illa
Comparative Tracking Index (CTI)	≥ 200	Moisture Level (MSL)	
UL 94 flammability rating	V-0	Contact material	Cu-alloy
Contact surface	tinned	Layer structure of plug contact	4...8 µm Sn hot-dip tinned
Storage temperature, min.	-40 °C	Storage temperature, max.	70 °C
Operating temperature, min.	-50 °C	Operating temperature, max.	100 °C
Temperature range, installation, min.	-25 °C	Temperature range, installation, max.	100 °C

### Conductors suitable for connection

Clamping range, min.	0.13 mm <sup>2</sup>
Clamping range, max.	4 mm <sup>2</sup>
Wire connection cross section AWG, min.	AWG 30
Wire connection cross section AWG, max.	AWG 12
Solid, min. H05(07) V-U	0.2 mm <sup>2</sup>
Solid, max. H05(07) V-U	4 mm <sup>2</sup>
Flexible, min. H05(07) V-K	0.2 mm <sup>2</sup>
Flexible, max. H05(07) V-K	4 mm <sup>2</sup>
w. plastic collar ferrule, DIN 46228 pt 4, min.	0.2 mm <sup>2</sup>
w. plastic collar ferrule, DIN 46228 pt 4, max.	2.5 mm <sup>2</sup>
w. wire end ferrule, DIN 46228 pt 1, min.	0.2 mm <sup>2</sup>
w. wire end ferrule, DIN 46228 pt 1, max.	4 mm <sup>2</sup>
Plug gauge in accordance with EN 60999 a x b; ø	2.8 mm x 2.4 mm

Clampable conductor	Cross-section for conductor connection	Type	fine-wired
		nominal	0.5 mm <sup>2</sup>
wire end ferrule	wire end ferrule	Stripping length	nominal 6 mm
		Recommended wire-end ferrule	<a href="#">H0.5/6</a>
		Stripping length	nominal 8 mm
		Recommended wire-end ferrule	<a href="#">H0.5/12 OR</a>
Cross-section for conductor connection	wire end ferrule	Type	fine-wired
		nominal	1 mm <sup>2</sup>
wire end ferrule	wire end ferrule	Stripping length	nominal 6 mm
		Recommended wire-end ferrule	<a href="#">H1.0/6</a>
		Stripping length	nominal 7 mm
		Recommended wire-end ferrule	<a href="#">H1.5/7</a>
Cross-section for conductor connection	wire end ferrule	Type	fine-wired
		nominal	1.5 mm <sup>2</sup>
wire end ferrule	wire end ferrule	Stripping length	nominal 7 mm
		Recommended wire-end ferrule	<a href="#">H1.5/7</a>
		Stripping length	nominal 10 mm
		Recommended wire-end ferrule	<a href="#">H2.5/15D BL</a>
Cross-section for conductor connection	wire end ferrule	Type	fine-wired
		nominal	2.5 mm <sup>2</sup>
wire end ferrule	wire end ferrule	Stripping length	nominal 7 mm
		Recommended wire-end ferrule	<a href="#">H2.5/7</a>
		Stripping length	nominal 10 mm
		Recommended wire-end ferrule	<a href="#">H2.5/15D BL</a>

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## Technical data

Reference text The outside diameter of the plastic collar should not be larger than the pitch (P), Length of ferrules 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)	23 A
Rated current, max. number of poles (Tu=20°C)	18 A	Rated current, min. number of poles (Tu=40°C)	21 A
Rated current, max. number of poles (Tu=40°C)	16 A	Rated voltage for surge voltage class / pollution degree II/2	400 V
Rated voltage for surge voltage class / pollution degree III/2	320 V	Rated voltage for surge voltage class / pollution degree III/3	250 V
Rated impulse voltage for surge voltage class/ pollution degree II/2	4 kV	Rated impulse voltage for surge voltage class/ pollution degree III/2	4 kV
Rated impulse voltage for surge voltage class/ contamination degree III/3	4 kV	Short-time withstand current resistance	3 x 1s with 120 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 voltage (Use group D / CSA)	300 V	Rated current (Use group B / CSA)	20 A
Rated current (Use group D / CSA)	20 A	Wire cross-section, AWG, min.	AWG 30
Wire cross-section, AWG, max.	AWG 12	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)	20 A	Rated current (Use group D / UL 1059)	10 A
Wire cross-section, AWG, min.	AWG 26	Wire cross-section, AWG, max.	AWG 12
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

### Packing

Packaging	Box	VPE length	340.00 mm
VPE width	145.00 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, rated voltage, rated cross-section, type of material
	Evaluation	available
	Test	durability
Test: Misengagement (Non-interchangeability)	Standard	DIN EN 60512-13-5 / 11.06, IEC 60512-13-5 / 02.06
	Test	180° turned with coding elements
	Evaluation	passed
	Test	visual examination
Test: Clampable cross section	Evaluation	passed
	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**

Test for damage to and accidental loosening of conductors	Conductor type	Type of conductor and conductor cross-section	solid 0.2 mm <sup>2</sup>
		Type of conductor and conductor cross-section	stranded 0.2 mm <sup>2</sup>
		Type of conductor and conductor cross-section	solid 2.5 mm <sup>2</sup>
		Type of conductor and conductor cross-section	stranded 2.5 mm <sup>2</sup>
		Type of conductor and conductor cross-section	AWG 26/1
		Type of conductor and conductor cross-section	AWG 26/19
	Evaluation	passed	
	Standard	DIN EN 60999-1 section 9.4 / 12.00	
	Requirement	0.2 kg	
	Conductor type	Type of conductor and conductor cross-section	AWG 26/1
		Type of conductor and conductor cross-section	AWG 26/19
	Evaluation	passed	
Requirement	0.3 kg		
Conductor type	Type of conductor and conductor cross-section	solid 0.5 mm <sup>2</sup>	
	Type of conductor and conductor cross-section	stranded 0.5 mm <sup>2</sup>	
Evaluation	passed		
Requirement	0.9 kg		
Conductor type	Type of conductor and conductor cross-section	AWG 12/1	
	Type of conductor and conductor cross-section	AWG 12/19	
Evaluation	passed		
Pull-out test	Standard	DIN EN 60999-1 section 9.5 / 12.00	
	Requirement	≥10 N	
	Conductor type	Type of conductor and conductor cross-section	AWG 26/1
		Type of conductor and conductor cross-section	AWG 26/19
	Evaluation	passed	
	Requirement	≥20 N	
	Conductor type	Type of conductor and conductor cross-section	H05V-U0.5
		Type of conductor and conductor cross-section	H05V-K0.5
	Evaluation	passed	
	Requirement	≥60 N	

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**Technical data**

Conductor type	Type of conductor and conductor cross-section	H07V-U4.0
	Type of conductor and conductor cross-section	H07V-K4.0
	Type of conductor and conductor cross-section	AWG 12/1
	Type of conductor and conductor cross-section	AWG 12/19
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
  - 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.
  - 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**

ETIM 8.0	EC002638	ETIM 9.0	EC002638
ETIM 10.0	EC002638	ECLASS 14.0	27-46-02-02
ECLASS 15.0	27-46-02-02		

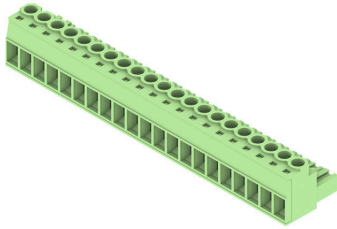
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Drawings

Product image



Dimensional drawing



Graph



Graph



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## Accessories

### Strain reliefs



For frequent load changes: the "trailer coupling" for plug-in connectors.

The strain relief can do more than just relieve the strain on conductors:

Simply clip onto the plug and

- bundle conductors
- guide cables
- use as a connection and disconnection aid

No damage to the connecting points, clear, tidy wiring and easy to handle.

User advantages: permanent heavy-duty connections for harsh industrial environments and convenient operation ensure improved system availability.

### General ordering data

Type	BLZ 5.08 ZE04 OR BX	Version
Order No.	<a href="#">1652110000</a>	PCB plug-in connector, Accessories, Strain relief, orange, Number of
GTIN (EAN)	4008190401788	poles: 4
Qty.	50 ST	
Type	BLZ 5.08 ZE04 BK BX	Version
Order No.	<a href="#">1652130000</a>	PCB plug-in connector, Accessories, Strain relief, black, Number of
GTIN (EAN)	4008190401801	poles: 4
Qty.	50 ST	
Type	BLZ 5.08 ZE08 OR BX	Version
Order No.	<a href="#">1652050000</a>	PCB plug-in connector, Accessories, Strain relief, orange, Number of
GTIN (EAN)	4008190401726	poles: 8
Qty.	50 ST	
Type	BLZ 5.08 ZE08 BK BX	Version
Order No.	<a href="#">1652070000</a>	PCB plug-in connector, Accessories, Strain relief, black, Number of
GTIN (EAN)	4008190401740	poles: 8
Qty.	50 ST	

### Coding elements



Only connects what is supposed to be connected: the right connection at the right place.

Coding elements and locking devices clearly assign connecting elements during the manufacturing process and operation

The coding elements and locking devices are inserted prior to assembly or during the cable assembly phase.

The Weidmüller alternative: configure online using the variant configurator to precode prior to delivery.

Incorrect assembly on the circuit board and incorrect plugging of connecting elements is no longer possible.

The advantage: no troubleshooting during manufacture and no operational errors by the user.

### General ordering data

Type	BLZ/SL KO OR BX	Version
Order No.	<a href="#">1573010000</a>	PCB plug-in connector, Accessories, Coding element, orange, Number
GTIN (EAN)	4008190048396	of poles: 1
Qty.	100 ST	

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**Accessories**

Type	BLZ/SL KO BK BX	Version	
Order No.	<a href="#">1545710000</a>	PCB plug-in connector, Accessories, Coding element, black, Number	
GTIN (EAN)	4008190087142	of poles: 1	
Qty.	50 ST		

**Slotted screwdriver**



Slotted screwdriver with rounded blade SD DIN 5265, ISO 2380/2, output to DIN 5264, ISO 2380/1. ChromTop tip, SoftFinish grip

**General ordering data**

Type	SDS 0.6X3.5X100	Version	
Order No.	<a href="#">2749340000</a>	Screwdriver, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade thickness (A): 0.6 mm	
GTIN (EAN)	4050118895568		
Qty.	1 ST		
Type	SDIS 0.6X3.5X100	Version	
Order No.	<a href="#">2749810000</a>	Screwdriver, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade thickness (A): 0.6 mm	
GTIN (EAN)	4050118897012		
Qty.	1 ST		

**Crosshead screwdriver Phillips**



Crosshead screwdriver, Phillips, SDK PH DIN 5262, ISO 8764/2-PH, output to ISO 8764-PH, ChromTop tip, SoftFinish grip

**General ordering data**

Type	SDK PH1 X 80	Version	
Order No.	<a href="#">2749410000</a>	Screwdriver, Blade width (B): 4.5 mm, 80 mm, Blade thickness (A): 1	
GTIN (EAN)	4050118895636		
Qty.	1 ST		

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## Accessories

### Crosshead screwdriver Pozidriv



Crosshead screwdriver, Pozidriv, SDK PZ DIN 5262, ISO 8764/2-PZ, output to ISO 8764/1-PZ, ChromTop tip, SoftFinish grip

### General ordering data

Type	SDK PZ1 X 80	Version	
Order No.	<a href="#">2749440000</a>	Screwdriver, Blade width (B): 14.5 mm, 80 mm, Blade thickness (A): 1	
GTIN (EAN)	4050118895667		
Qty.	1 ST		