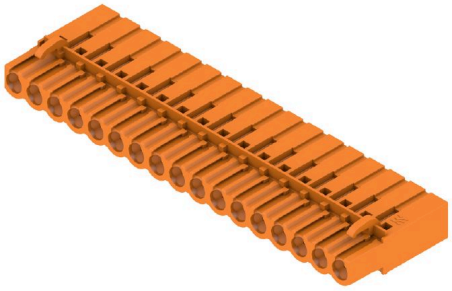
Data sheet

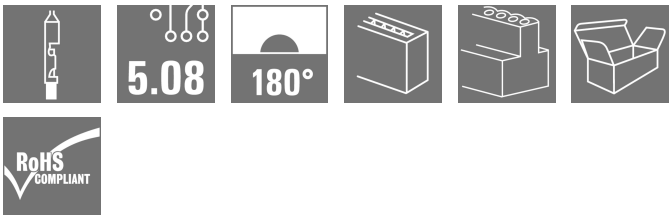
BLC 5.08/17/180R OR BX

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

www.weidmueller.com

Product image





Female plugs with crimp wire connection system.The female plugs provide space for labelling and can be coded.

General ordering data

Version	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 17, 180°, Crimp connection, Clamping range, max. : 2.5 mm², Box
Order No.	1047870000
Type	BLC 5.08/17/180R OR BX
GTIN (EAN)	4032248784417
Qty.	20 items
Product data	IEC: 400 V / 21 A UL: 300 V / 10 A / AWG 26 - AWG 14
Packaging	Box

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Technical data

Approvals

Approvals	
ROHS	Conform
UL File Number Search	UL Website
Certificate No. (UR)	E60693

Dimensions and weights

Depth	24.5 mm	Depth (inches)	0.9646 inch
Height	10.1 mm	Height (inches)	0.3976 inch
Width	86.36 mm	Width (inches)	3.4 inch
Net weight	9.68 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	Crimp connection	Pitch in mm (P)	5.08 mm
Pitch in inches (P)	0.200 "	Conductor outlet direction	180°
Number of poles	17	L1 in mm	81.28 mm
L1 in inches	3.200 "	Number of rows	1
Pin series quantity	1	Rated cross-section	2.5 mm²
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	5 mm
Plugging cycles	25	Plugging force/pole, max.	8.5 N
Pulling force/pole, max.	6.5 N		

Material data

Insulating material	PBT GF	Colour	orange
Colour chart (similar)	RAL 2000	Insulating material group	IIIa
Comparative Tracking Index (CTI)	≥ 200	Moisture Level (MSL)	
UL 94 flammability rating	V-0	Contact material	Cu-alloy
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.	0.22 mm²	Clamping range, max.	2.5 mm²
Wire connection cross section AWG, min.	AWG 24	Wire connection cross section AWG, max.	AWG 14
Flexible, min. H05(07) V-K	0.5 mm²	Flexible, max. H05(07) V-K	2.5 mm²
Reference text	The outside diameter of the plastic collar should not be larger than the pitch		

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(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)	21 A
Rated current, max. number of poles (Tu=20°C)	14.5 A	Rated current, min. number of poles (Tu=40°C)	18 A
Rated current, max. number of poles (Tu=40°C)	12.5 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)	12400-374
Rated voltage (Use group B / CSA)	300 V	Rated voltage (Use group D / CSA)	300 V
Rated current (Use group B / CSA)	10 A	Rated current (Use group D / CSA)	10 A
Wire cross-section, AWG, min.	AWG 26	Wire cross-section, AWG, max.	AWG 14
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Rated data acc. to UL 1059

Institute (UR)	UR	Certificate No. (UR)	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 26	Wire cross-section, AWG, max.	AWG 14
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Packing

Packaging	Box	VPE length	178.00 mm
VPE width	97.00 mm	VPE height	53.00 mm

Type tests

Test: Durability of markings	Standard	draft DIN VDE 0627 section 6.2.2 / 09.91, DIN IEC 512 part 7 section 5 / 05.94
	Test	durability
	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. • Rated cross-section depends on crimp contact used.

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Technical data

- 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 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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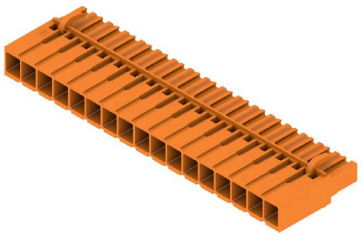
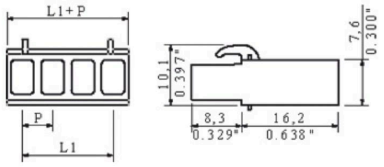
Drawings

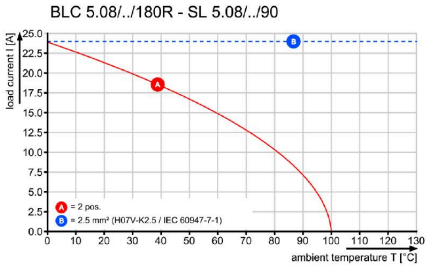
Product image



Dimensional drawing



Graph



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Accessories

Blocks for PCB mounting

Minor component, major effect:
Clip-on attachment elements increase the mechanical resilience of the whole plug connection by
- securing the male connectors to the circuit board
- providing a vibration-proof connection between the sockets and the male connectors

Clip-on or pre-assembled - always the right solution:
- Hard-wearing, precise fitting dovetail joint
- Hard-wearing metal threaded inserts
- Suitable for all outlet directions

Maximum stability, minimum effort:
- Extremely resilient for frequent fastening operations
- Complete set for easy selection

The result: soldering points, contacts and overall module are more resilient against mechanical stress such as vibrations and tensile loads.

General ordering data

Type	SLA BB12R SW	Version
Order No.	1626880000	PCB plug-in connector, Accessories, Mounting block, black, Number
GTIN (EAN)	4008190198213	of poles: 0
Qty.	100 ST	
Type	SLA BB12R OR	Version
Order No.	1593450000	PCB plug-in connector, Accessories, Mounting block, orange, Number
GTIN (EAN)	4008190122164	of poles: 0
Qty.	100 ST	
Type	SLA BB11R SW	Version
Order No.	1692340000	PCB plug-in connector, Accessories, Mounting block, black, Number
GTIN (EAN)	4008190864965	of poles: 0
Qty.	20 ST	
Type	SLA BB11R OR	Version
Order No.	1604120000	PCB plug-in connector, Accessories, Mounting block, orange, Number
GTIN (EAN)	4008190182977	of poles: 0
Qty.	20 ST	
Type	SLA BB1R SW	Version
Order No.	1723480000	PCB plug-in connector, Accessories, Mounting block, black, Number
GTIN (EAN)	4008190366032	of poles: 0
Qty.	20 ST	
Type	SLA BB1R OR	Version
Order No.	1723430000	PCB plug-in connector, Accessories, Mounting block, orange, Number
GTIN (EAN)	4008190365981	of poles: 0
Qty.	20 ST	
Type	SLA BB2R SW	Version
Order No.	1723490000	PCB plug-in connector, Accessories, Mounting block, black, Number
GTIN (EAN)	4008190366049	of poles: 0
Qty.	20 ST	
Type	SLA BB2R OR	Version
Order No.	1723440000	PCB plug-in connector, Accessories, Mounting block, orange, Number
GTIN (EAN)	4008190365998	of poles: 0
Qty.	20 ST	
Type	SLA BB5R SW	Version
Order No.	1723510000	PCB plug-in connector, Accessories, Mounting block, black, Number
GTIN (EAN)	4008190366063	of poles: 0
Qty.	20 ST	

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Accessories

Type	SLA BB5R OR	Version
Order No.	1723460000	PCB plug-in connector, Accessories, Mounting block, orange, Number
GTIN (EAN)	4008190366018	of poles: 0
Qty.	20 ST	

Type	SLA BB6R SW	Version
Order No.	1723520000	PCB plug-in connector, Accessories, Mounting block, black, Number
GTIN (EAN)	4008190366070	of poles: 0
Qty.	20 ST	

Type	SLA BB6R OR	Version
Order No.	1723470000	PCB plug-in connector, Accessories, Mounting block, orange, Number
GTIN (EAN)	4008190366025	of poles: 0
Qty.	20 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 BK BX	Version
Order No.	1545710000	PCB plug-in connector, Accessories, Coding element, black, Number
GTIN (EAN)	4008190087142	of poles: 1
Qty.	50 ST	

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