

BLA 20B SN OR**Weidmüller Interface GmbH & Co. KG**

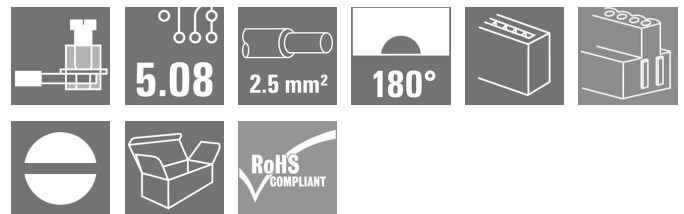
Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com**Product image**

Similar to illustration

Do not use product for new developments

Female header with clamping yoke connection system. The principle of the vibration-proof screw connection and the Unimate range pin arrangement provides a unique security during operation. Also available with dovetail (B) for convenient attachment of fixing blocks. The BLA has a labelling panel and can be coded. Supplied in cardboard box.

General ordering data

Version	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 20, 180°, Clamping yoke connection, Clamping range, max. : 1.5 mm², Box
Order No.	1357860000
Type	BLA 20B SN OR
GTIN (EAN)	4008190092870
Qty.	18 pc(s).
Product data	IEC: 400 V / 17.5 A / 0.2 - 1.5 mm² UL: 300 V / 10 A / AWG 28 - AWG 16
Packaging	Box
Delivery status	Discontinued
Available until	2024-09-30

Creation date May 23, 2025 3:22:38 PM CEST

Catalogue status 10.05.2025 / We reserve the right to make technical changes.

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Technical data

Dimensions and weights

Depth	20 mm	Depth (inches)	0.787 inch
Height	15.2 mm	Height (inches)	0.598 inch
Width	101.6 mm	Width (inches)	4 inch
Net weight	36.9 g		

System Parameters

Product family	OMNIMATE Signal - series BLA/SLA 5.08	Type of connection	Field connection
Wire connection method	Clamping yoke connection	Pitch in mm (P)	5.08 mm
Pitch in inches (P)	0.2 "	Conductor outlet direction	180°
Number of poles	20	L1 in mm	96.52 mm
L1 in inches	3.8 "	Number of rows	1
Pin series quantity	1	Rated cross-section	2.5 mm ²
Touch-safe protection acc. to DIN VDE 57 106	finger-safe unplugged/ back-of-hand-safe plugged	Touch-safe protection acc. to DIN VDE 0470	IP 20
Protection degree	IP20	Volume resistance	5.50 mΩ
Can be coded	Yes	Stripping length	7 mm
Tightening torque, min.	0.4 Nm	Tightening torque, max.	0.5 Nm
Clamping screw	M 2.5	Screwdriver blade	0.6 x 3.5
Screwdriver blade standard	DIN 5264	Plugging cycles	25
Pulling force/pole, max.	2 N		

Material data

Insulating material	PBT GF	Colour	orange
Colour chart (similar)	RAL 2000	Insulating material group	IIIa
Comparative Tracking Index (CTI)	≥ 200	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.	120 °C	Temperature range, installation, min.	-25 °C
Temperature range, installation, max.	120 °C		

Conductors suitable for connection

Clamping range, min.	0.13 mm ²	Clamping range, max.	1.5 mm ²
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 4, min.	0.2 mm ²	w. plastic collar ferrule, DIN 46228 pt 4, max.	1.5 mm ²
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		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.
	2.4 mm x 1.5 mm		

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Technical data

Rated data acc. to IEC

tested acc. to standard

IEC 60664-1, IEC 61984

Rated current, max. number of poles
(Tu=20°C)

12.5 A

Rated current, max. number of poles
(Tu=40°C)

11 A

Rated voltage for surge voltage class /
pollution degree III/2

320 V

Rated impulse voltage for surge voltage
class/ pollution degree II/2

4 kV

Rated impulse voltage for surge voltage
class/ contamination degree III/3

4 kV

Rated current, min. number of poles
(Tu=20°C)

17.5 A

Rated current, min. 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/3

250 V

Rated impulse voltage for surge voltage
class/ pollution degree III/2

4 kV

Short-time withstand current resistance

3 x 1s with 100 A

Rated data acc. to CSA

Institute (CSA)



Certificate No. (CSA)

12400-158

Rated voltage (Use group B / CSA)

300 V

Rated current (Use group B / CSA)

10 A

Wire cross-section, AWG, min.

AWG 28

Reference to approval values

Specifications are maximum values, details - see approval certificate.

Rated voltage (Use group D / CSA)

300 V

Rated current (Use group D / CSA)

10 A

Wire cross-section, AWG, max.

AWG 16

Rated data acc. to UL 1059

Institute (UR)



Certificate No. (UR)

E60693

Rated voltage (Use group B / UL 1059)

300 V

Rated current (Use group B / UL 1059)

10 A

Wire cross-section, AWG, min.

AWG 28

Reference to approval values

Specifications are maximum values, details - see approval certificate.

Rated voltage (Use group D / UL 1059)

300 V

Rated current (Use group D / UL 1059)

10 A

Wire cross-section, AWG, max.

AWG 16

Packing

Packaging

Box

VPE length

350 mm

VPE width

135 mm

VPE height

30 mm

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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Technical data

Environmental Product Compliance

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

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 • 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

Approvals

Approvals



Approvals MAMID	https://mdcop.weidmueller.com/mediadelivery/rendition/900_319226/-T1z1mm-S800/ https://mdcop.weidmueller.com/mediadelivery/rendition/900_319234/-T1z1mm-S800/ https://mdcop.weidmueller.com/mediadelivery/rendition/900_319262/-T1z1mm-S800/
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ROHS	Conform
UL File Number Search	UL Website
Certificate No. (UR)	E60693

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Technical data

Downloads

Approval/Certificate/Document of Con-
formity

[Declaration of the Manufacturer](#)

Engineering Data

[CAD data – STEP](#)

Catalogues

[Catalogues in PDF-format](#)

Brochures

[FL DRIVES EN](#)

[MB DEVICE MANUF. EN](#)

[FL DRIVES DE](#)

[FL BUILDING SAFETY EN](#)

[FL APPL LED LIGHTING EN](#)

[FL INDUSTR.CONTROLS EN](#)

[FL MACHINE SAFETY EN](#)

[FL HEATING ELECTR EN](#)

[FL APPL INVERTER EN](#)

[FL_BASE_STATION_EN](#)

[FL ELEVATOR EN](#)

[FL POWER SUPPLY EN](#)

[FL 72H SAMPLE SER EN](#)

[PO OMNIMATE EN](#)

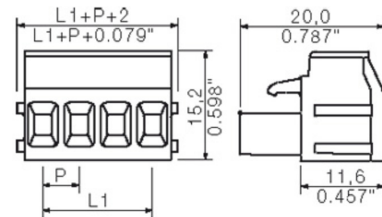
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Drawings

Dimensional drawing



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Accessories

Cover hoods

**Effective protection, optimised ergonomics and closed design:**

From the strain relief on the connected conductors and the visual/contact protection and the disconnection aid: the optional retrofit hoods perform mechanical, visual and haptic functions.

The two half shells clip together securely, enclose the plug completely and offer the following functions:

- Cable ties or integrated cable clips provide strain relief.
- Marked with dekafix labels or adhesive strips
- Mounting side by side without losing poles or displacing the pitch
- Compatible: suitable for plugs with or without a flange or mounting bracket
- Flexible: 1-3 cable outlets leading in different directions available depending on the size

Weidmüller hoods offer added stability, better

identification, complete compatibility and versatility.

The result: maximum reliability and user-friendliness in any application.

General ordering data

Type	BLA AH 20 GR.2 OR	Version	Product data	Packaging
Order No.	1328360000	PCB plug-in connector, Accessories, Hood, orange, Number of poles:		Box
GTIN (EAN)	4008190056797	20		
Qty.	10 pc(s).			
Type	BLA AHZH	Version	Product data	Packaging
Order No.	1340410000	PCB plug-in connector, Accessories, Help for pulling cover hood, black,		Box
GTIN (EAN)	4008190163365	Number of poles: 1		
Qty.	10 pc(s).			

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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 OR	Version	Product data	Packaging
Order No.	1593450000	PCB plug-in connector, Accessories, Mounting block, orange, Number of poles: 0		
GTIN (EAN)	4008190122164			
Qty.	100 pc(s).			
Type	SLA BB11R OR	Version	Product data	Packaging
Order No.	1604120000	PCB plug-in connector, Accessories, Mounting block, orange, Number of poles: 0		
GTIN (EAN)	4008190182977			
Qty.	20 pc(s).			
Type	SLA BB5R OR	Version	Product data	Packaging
Order No.	1723460000	PCB plug-in connector, Accessories, Mounting block, orange, Number of poles: 0		
GTIN (EAN)	4008190366018			
Qty.	20 pc(s).			
Type	SLA BB6R SW	Version	Product data	Packaging
Order No.	1723520000	PCB plug-in connector, Accessories, Mounting block, black, Number of poles: 0		
GTIN (EAN)	4008190366070			
Qty.	20 pc(s).			
Type	SLA BB1R OR	Version	Product data	Packaging
Order No.	1723430000	PCB plug-in connector, Accessories, Mounting block, orange, Number of poles: 0		
GTIN (EAN)	4008190365981			
Qty.	20 pc(s).			
Type	SLA BB2R SW	Version	Product data	Packaging
Order No.	1723490000	PCB plug-in connector, Accessories, Mounting block, black, Number of poles: 0		
GTIN (EAN)	4008190366049			
Qty.	20 pc(s).			
Type	SLA BB11R SW	Version	Product data	Packaging
Order No.	1692340000	PCB plug-in connector, Accessories, Mounting block, black, Number of poles: 0		
GTIN (EAN)	4008190864965			
Qty.	20 pc(s).			

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Accessories

Type	SLA BB1R SW	Version	Product data	Packaging
Order No.	1723480000	PCB plug-in connector, Accessories, Mounting block, black, Number of		Box
GTIN (EAN)	4008190366032	poles: 0		
Qty.	20 pc(s).			
Type	SLA BB12R SW	Version	Product data	Packaging
Order No.	1626880000	PCB plug-in connector, Accessories, Mounting block, black, Number of		Box
GTIN (EAN)	4008190198213	poles: 0		
Qty.	100 pc(s).			
Type	SLA BB2R OR	Version	Product data	Packaging
Order No.	1723440000	PCB plug-in connector, Accessories, Mounting block, orange, Number		Box
GTIN (EAN)	4008190365998	of poles: 0		
Qty.	20 pc(s).			
Type	SLA BB5R SW	Version	Product data	Packaging
Order No.	1723510000	PCB plug-in connector, Accessories, Mounting block, black, Number of		Box
GTIN (EAN)	4008190366063	poles: 0		
Qty.	20 pc(s).			
Type	SLA BB6R OR	Version	Product data	Packaging
Order No.	1723470000	PCB plug-in connector, Accessories, Mounting block, orange, Number		Box
GTIN (EAN)	4008190366025	of poles: 0		
Qty.	20 pc(s).			

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	SLA KO	Version	Product data	Packaging
Order No.	1323560000	PCB plug-in connector, Accessories, Coding element, white, Number		Box
GTIN (EAN)	4008190428389	of poles: 1		
Qty.	100 pc(s).			