Data sheet

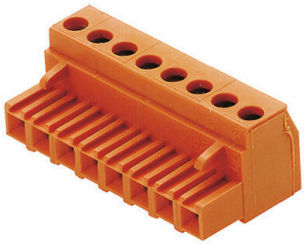
BLA 21 SN OR

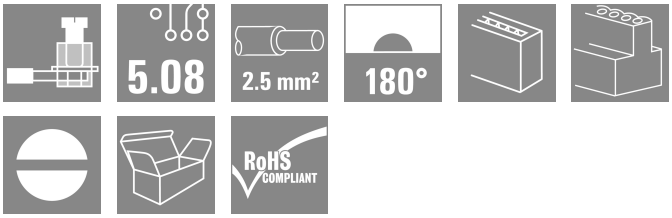
Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany

www.weidmueller.com

Do not use product for new developments

Product image





Similar to illustration

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: 21, 180°, Clamping yoke connection, Clamping range, max. : 1.5 mm², Box
Order No.	1283660000
Type	BLA 21 SN OR
GTIN (EAN)	4008190045289
Qty.	12 items
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	2024-09-30T00:00:00+02:00

Creation date 24.02.2026 09:27:28 MEZ

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Technical data

Approvals

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

Dimensions and weights

Depth	20 mm	Depth (inches)	0.7874 inch
Height	15.2 mm	Height (inches)	0.5984 inch
Width	106.68 mm	Width (inches)	4.2 inch
Net weight	42.67 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 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)	0.200 "	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	2.5 mm²
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	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.	120 °C
Temperature range, installation, min.	-25 °C	Temperature range, installation, max.	120 °C

Conductors suitable for connection

Clamping range, min.	0.13 mm²	Clamping range, max.	1.5 mm²
Wire connection cross section AWG, min.	AWG 28	Wire connection cross section AWG, max.	AWG 16

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Solid, min. H05(07) V-U	0.2 mm²	Solid, max. H05(07) V-U	1.5 mm²
Flexible, min. H05(07) V-K	0.2 mm²	Flexible, max. H05(07) V-K	1.5 mm²
w. plastic collar ferrule, DIN 46228 pt 4, min.	0.2 mm²	w. plastic collar ferrule, DIN 46228 pt 4, max.	1.5 mm²
w. wire end ferrule, DIN 46228 pt 1, min.	0.2 mm²	w. wire end ferrule, DIN 46228 pt 1, max.	1.5 mm²
Plug gauge in accordance with EN 60999 a x b; ø	2.4 mm x 1.5 mm	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)	17.5 A
Rated current, max. number of poles (Tu=20°C)	12.5 A	Rated current, min. number of poles (Tu=40°C)	16 A
Rated current, max. number of poles (Tu=40°C)	11 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 100 A

Rated data acc. to CSA

Institute (CSA)	CSA	Certificate No. (CSA)	12400-158
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 28	Wire cross-section, AWG, max.	AWG 16
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 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	175.00 mm
VPE width	120.00 mm	VPE height	45.00 mm

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

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Technical data

- 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

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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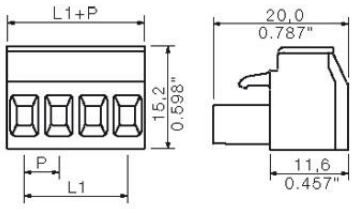
Drawings

Dimensional drawing



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Accessories

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
Order No.	1323560000	PCB plug-in connector, Accessories, Coding element, white, Number
GTIN (EAN)	4008190428389	of poles: 1
Qty.	100 ST	

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 AHZH	Version
Order No.	1340410000	PCB plug-in connector, Accessories, Help for pulling cover hood,
GTIN (EAN)	4008190163365	black, Number of poles: 1
Qty.	10 ST	

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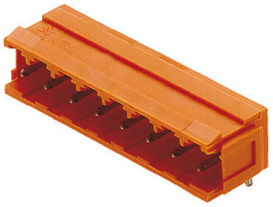
Counterpart

SLA 90B

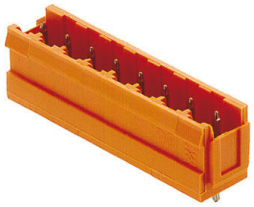


Dimensionally stable, angled, codable male connector from the Unimate range of plugs with integral aid to prevent wrong connections. Available with open or closed sides. Fixing blocks can be attached to the closed version. The solder pin length of 3.2 mm has been optimised for wave soldering. Supplied in cardboard box.

General ordering data

Type	SLA 21/90B 3.2SN OR BX	Version
Order No.	1270660000	PCB plug-in connector, male header, Dovetails for fixing blocks, THT
GTIN (EAN)	4032248188086	solder connection, 5.08 mm, Number of poles: 21, 90°, Solder pin
Qty.	20 ST	length (l): 3.2 mm, tinned, orange, Box

SLA 180B



Dimensionally stable, straight, codable male connector from the Unimate range of plugs with integral aid to prevent wrong connections. Available with open or closed sides. Fixing blocks can be attached to the closed version. The solder pin length of 3.2 mm has been optimised for wave soldering. Supplied in cardboard box.

General ordering data

Type	SLA 21/180B 3.2SN OR BX	Version
Order No.	1271160000	PCB plug-in connector, male header, Dovetails for fixing blocks, THT
GTIN (EAN)	4008190065218	solder connection, 5.08 mm, Number of poles: 21, 180°, Solder pin
Qty.	20 ST	length (l): 3.2 mm, tinned, orange, Box

SLA 180

Dimensionally stable, straight, codable male connector from the Unimate range of plugs with integral aid to prevent wrong connections. Available with open or closed sides. Fixing blocks can be attached to the closed version. The solder pin length of 3.2 mm has been optimised for wave soldering. Supplied in cardboard box.

General ordering data

Type	SLA 21/180 3.2SN OR BX	Version
Order No.	1271660000	PCB plug-in connector, male header, open side, THT solder
GTIN (EAN)	4008190060466	connection, 5.08 mm, Number of poles: 21, 180°, Solder pin length
Qty.	20 ST	(l): 3.2 mm, tinned, orange, Box

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Counterpart

SLAD 90

Dimensionally stable, angled, codable 2-tier male connector from the Unimate range of plugs with integral aid to prevent wrong connections. Available with open or closed sides. Fixing blocks can be attached to the closed version. The solder pin length of 3.2 mm has been optimised for wave soldering. Supplied in cardboard box.

General ordering data

Type	SLAD 42/90 3.2SN OR	Version
Order No.	1374160000	PCB plug-in connector, male header, open side, THT solder
GTIN (EAN)	4008190032302	connection, 5.08 mm, Number of poles: 42, 90°, Solder pin length (l):
Qty.	10 ST	3.2 mm, tinned, orange, Box