

SLA 09/90B 4.5SN OR BX

Weidmüller Interfaces GmbH & Co. KG

Postfach 3030

32760 Detmold

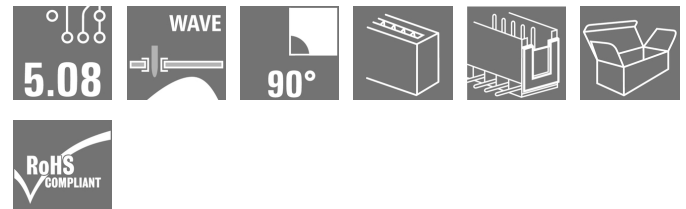
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Product image



Similar to illustration

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

Version	PCB plug-in connector, male header, Dovetails for fixing blocks, THT solder connection, 5.08 mm, Number of poles: 9, 90°, Solder pin length (l): 4.5 mm, tinned, orange, Box
Order No.	1352160000
Type	SLA 09/90B 4.5SN OR BX
GTIN (EAN)	4008190037284
Qty.	50 pc(s).
Product data	IEC: 400 V / 17.5 A UL: 300 V / 10 A
Packaging	Box

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Technical data

Dimensions and weights

Depth	12 mm	Depth (inches)	0.472 inch
Height	13.9 mm	Height (inches)	0.547 inch
Height of lowest version	9.4 mm	Width	47.72 mm
Width (inches)	1.879 inch	Net weight	4.34 g

System specifications

Product family	OMNIMATE Signal - series BLA/SLA 5.08	Type of connection	Board connection
Mounting onto the PCB	THT solder connection	Pitch in mm (P)	5.08 mm
Pitch in inches (P)	0.2 inch	Outgoing elbow	90°
Number of poles	9	Number of solder pins per pole	1
Solder pin length (l)	4.5 mm	Solder pin dimensions	d = 1.2 mm, Octagonal
Solder eyelet hole diameter (D)	1.3 mm	Solder eyelet hole diameter tolerance (D)	+ 0,1 mm
L1 in mm	40.64 mm	L1 in inches	1.6 inch
Number of rows	1	Pin series quantity	1
Touch-safe protection acc. to DIN VDE 57 106	Safe from back-of-hand touch	Volume resistance	5.50 mΩ
Can be coded	Yes	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	CuSn	Contact surface	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

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)		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
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Creation date June 3, 2022 6:52:41 PM CEST

Catalogue status 20.05.2022 / We reserve the right to make technical changes.

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E60693

Technical data

Rated data acc. to UL 1059

Institute (UR)



Certificate No. (UR)

www.weidmueller.com

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

Reference to approval values

Specifications are maximum values, details - see approval certificate.

Packing

Packaging	Box	VPE length	155 mm
VPE width	61 mm	VPE height	58 mm

Classifications

ETIM 6.0	EC002637	ETIM 7.0	EC002637
ETIM 8.0	EC002637	ECLASS 9.0	27-44-04-02
ECLASS 9.1	27-44-04-02	ECLASS 10.0	27-44-04-02
ECLASS 11.0	27-46-02-01	ECLASS 12.0	27-46-02-01

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.
- 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.
- Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months

Approvals

Approvals



ROHS Conform

UL File Number Search E60693

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Data sheet

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Drawings

Dimensional drawing info@weidmueller.com

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Accessories

LED Light guides



Effective: the link between LED and front panel.

Floodlight indicators allow users to monitor the switching states without requiring a special design: optical plastic directs the light from standard LEDs around a bend into the connectors or through the front plate.

The fibre-optic elements are simply clipped behind the relevant 90° bend male connectors (90° outlet direction). Versions with different incoming light beam heights achieve maximum light efficiency for LEDs with different designs or heights.

The advantages compared to conventional solutions:

- No additional LED circuit board required behind the front panel
- No "long-legged" LEDs with separate mounting required
- Bent fibre-optic cable line for maximum light efficiency
- Uncomplicated front plate bore holes due to circular shape of outgoing light beam
- Easy to maintain correct clearance and creepage distance
- Can be partitioned for smaller pole numbers

The result: simplified manufacturing process, reduced costs and simplified design

General ordering data

Type	SLA FLA 3.8/1	Version	Product data	
Order No.	1482860000	PCB plug-in connector, Accessories, Flood-light display, Transparent,		
GTIN (EAN)	4008190115500	Number of poles: 1		
Qty.	100 pc(s).			
Type	SLA FLAT 4TE 2.3/1	Version	Product data	
Order No.	1596880000	PCB plug-in connector, Accessories, Flood-light display, Transparent,		
GTIN (EAN)	4008190157784	Number of poles: 1		
Qty.	100 pc(s).			
Type	SLA FLA 9.8/1	Version	Product data	Packaging
Order No.	1483260000	PCB plug-in connector, Accessories, Flood-light display, Transparent,		Box
GTIN (EAN)	4008190167363	Number of poles: 1		
Qty.	100 pc(s).			
Type	SLA FLAT 4TE 3.8/1	Version	Product data	
Order No.	1578250000	PCB plug-in connector, Accessories, Flood-light display, Transparent,		
GTIN (EAN)	4008190047474	Number of poles: 1		
Qty.	100 pc(s).			

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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	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).			

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 BB5R SW	Version	Product data	Packaging
Order No.	1723510000	PCB plug-in connector, Accessories, Mounting block, black, Number of		Box
GTIN (EAN)	4008190366063	poles: 1		
Qty.	20 pc(s).			
Type	SLA BB1R OR	Version	Product data	Packaging
Order No.	1723430000	PCB plug-in connector, Accessories, Mounting block, orange, Number		Box
GTIN (EAN)	4008190365981	of poles: 1		
Qty.	20 pc(s).			

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Accessories

Type	SLA BB2R OR	Version	Product data	Packaging
Order No.	1723440000	PCB plug-in connector, Accessories, Mounting block, orange, Number of poles: 1	info@weidmueller.com	Box
GTIN (EAN)	4008190365998			
Qty.	20 pc(s).		www.weidmueller.com	
Type	SLA BB1R SW	Version	Product data	Packaging
Order No.	1723480000	PCB plug-in connector, Accessories, Mounting block, black, Number of poles: 1		Box
GTIN (EAN)	4008190366032			
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: 1		Box
GTIN (EAN)	4008190366018			
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: 1		Box
GTIN (EAN)	4008190366049			
Qty.	20 pc(s).			
Type	SLA BB12R OR	Version	Product data	Packaging
Order No.	1593450000	PCB plug-in connector, Accessories, Mounting block, orange, Number of poles: 1		Box
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: 1		Box
GTIN (EAN)	4008190182977			
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 poles: 1		Box
GTIN (EAN)	4008190198213			
Qty.	100 pc(s).			
Type	SLA BB6R OR	Version	Product data	Packaging
Order No.	1723470000	PCB plug-in connector, Accessories, Mounting block, orange, Number of poles: 1		Box
GTIN (EAN)	4008190366025			
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: 1		Box
GTIN (EAN)	4008190366070			
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: 1		Box
GTIN (EAN)	4008190864965			
Qty.	20 pc(s).			

Recommended wave soldering profiles

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Single Wave:



Double Wave:



Wave soldering profiles

Wired connection elements should be processed in accordance with the DIN EN 61760-1 standard. We have included two recommendations for practical wave soldering profiles, with which Weidmüller PCB terminals and connectors are qualified.

When choosing a suitable profile for your application, the following factors also need to be considered:

- PCB thickness
- Proportion of Cu in the layers
- Single/double-sided assembly
- Product range
- Heating and cooling rates

The single and double wave profiles each indicate the recommended operating range, including the maximum soldering temperature of 260°C. In practice, the maximum soldering temperature is quite often well below the above maximum profile.

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