

B2L 3.50/08/180LHQV4 SN BK BX

Weidmüller Interface GmbH & Co. KG

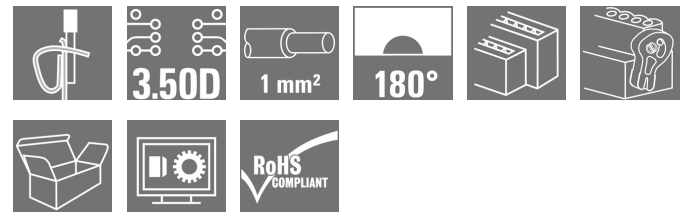
Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Product image



Female connector with integral cross-connection and clear printing for uninterrupted relaying of potential at full current-carrying capacity with the maximum cable cross-section. The cross-connection is positioned vertically between the poles of rows directly on top of each other. Conductor connection with tension clamp system with straight outlet and 3.5 mm pitch. Flange and release lever available. Packed in cardboard box.

General ordering data

Version	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 8, 180°, Tension-clamp connection, Clamping range, max.: 1 mm ² , Box
Order No.	1944760000
Type	B2L 3.50/08/180LHQV4 SN BK BX
GTIN (EAN)	4032248619696
Qty.	90 pc(s).
Product data	IEC: 200 V / 10.6 A / 0.2 - 1 mm ² UL: 150 V / 7 A / AWG 28 - AWG 18
Packaging	Box

Creation date January 29, 2022 9:13:02 AM CET

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Technical data**Dimensions and weights**

Depth	20.6 mm	Depth (inches)	0.811 inch
Height	15.7 mm	Height (inches)	0.618 inch
Width	20.3 mm	Width (inches)	0.799 inch
Net weight	4.628 g		

System Parameters

Product family	OMNIMATE Signal - series B2L/S2L 3.50 - 2-row	Type of connection	Field connection
Wire connection method	Tension-clamp connection	Pitch in mm (P)	3.5 mm
Pitch in inches (P)	0.138 inch	Conductor outlet direction	180°
Number of poles	8	L1 in mm	10.5 mm
L1 in inches	0.413 inch	Number of rows	1
Pin series quantity	2	Rated cross-section	1 mm ²
Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch	Touch-safe protection acc. to DIN VDE 0470	IP 20
Can be coded	Yes	Stripping length	7 mm
Screwdriver blade	0.4 x 2.5	Screwdriver blade standard	DIN 5264
Plugging cycles	25	Plugging force/pole, max.	5 N
Pulling force/pole, max.	4 N		

Material data

Insulating material	PBT	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	IIIa
Comparative Tracking Index (CTI)	≥ 200	UL 94 flammability rating	V-0
Contact material	Copper alloy	Contact surface	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.	-30 °C	Temperature range, installation, max.	100 °C

Conductors suitable for connection

Clamping range, min.	0.08 mm ²
Clamping range, max.	1 mm ²
Wire connection cross section AWG, min.	AWG 28
Wire connection cross section AWG, max.	AWG 18
Solid, min. H05(07) V-U	0.2 mm ²
Solid, max. H05(07) V-U	1 mm ²
Flexible, min. H05(07) V-K	0.2 mm ²
Flexible, max. H05(07) V-K	1 mm ²
w. plastic collar ferrule, DIN 46228 pt 4, min.	0.14 mm ²
w. plastic collar ferrule, DIN 46228 pt 4, max.	0.34 mm ²
w. wire end ferrule, DIN 46228 pt 1, min.	0.14 mm ²
w. wire end ferrule, DIN 46228 pt 1, max.	0.34 mm ²

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Technical data

Clampable conductor	Cross-section for conductor connection	Type	fine-wired
	wire end ferrule	nominal	0.14 mm ²
		Stripping length	nominal 10 mm
		Recommended wire-end ferrule	HO.14/12 GR SV
Reference text	Cross-section for conductor connection	Type	fine-wired
	wire end ferrule	nominal	0.25 mm ²
		Stripping length	nominal 10 mm
		Recommended wire-end ferrule	HO.25/12 HBL
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)	10.6 A
Rated current, max. number of poles (Tu=20°C)	8.2 A	Rated current, min. number of poles (Tu=40°C)	9.1 A
Rated current, max. number of poles (Tu=40°C)	7 A	Rated voltage for surge voltage class / pollution degree II/2	200 V
Rated voltage for surge voltage class / pollution degree III/2	160 V	Rated voltage for surge voltage class / pollution degree III/3	80 V
Rated impulse voltage for surge voltage class/ pollution degree II/2	2.5 kV	Rated impulse voltage for surge voltage class/ pollution degree III/2	2.5 kV
Rated impulse voltage for surge voltage class/ contamination degree III/3	1.5 kV	Short-time withstand current resistance	3 x 1s with 77 A

Rated data acc. to CSA

Institute (CSA)		Certificate No. (CSA)	200039-1488444
Rated voltage (Use group B / CSA)	300 V	Rated current (Use group B / CSA)	7 A
Wire cross-section, AWG, min.	AWG 28	Wire cross-section, AWG, max.	AWG 18
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Rated data acc. to UL 1059

Institute (UR)		Certificate No. (UR)	E60693
Rated voltage (Use group B / UL 1059)	150 V	Rated voltage (Use group C / UL 1059)	50 V
Rated current (Use group B / UL 1059)	7 A	Rated current (Use group C / UL 1059)	7 A
Wire cross-section, AWG, min.	AWG 28	Wire cross-section, AWG, max.	AWG 18
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Packing

Packaging	Box	VPE length	338 mm
VPE width	130 mm	VPE height	27 mm

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Catalogue status 14.01.2022 / We reserve the right to make technical changes.

3

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Technical data
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, type identification, rated cross-section, type of material		
	Evaluation	available		
	Test	durability		
	Evaluation	passed		
Test: Misengagement (Non-interchangeability)	Standard	DIN EN 61984 section 6.3 and 6.9.1 / 09.02, DIN IEC 60512-7 section 5 / 05.94		
	Test	180° turned without coding elements		
	Evaluation	passed		
	Test	visual examination		
	Evaluation	passed		
Test: Clampable cross section	Standard	DIN EN 60999-1 section 7 and 9.1 / 12.00, DIN EN 60947-1 section 8.2.4.5.1 / 12.02		
	Conductor type	Type of conductor and conductor cross-section	solid 0.2 mm ²	
		Type of conductor and conductor cross-section	stranded 0.2 mm ²	
		Type of conductor and conductor cross-section	solid 1.0 mm ²	
		Type of conductor and conductor cross-section	stranded 1.0 mm ²	
		Type of conductor and conductor cross-section	AWG 28/1	
		Type of conductor and conductor cross-section	AWG 28/19	
		Type of conductor and conductor cross-section	AWG 18/1	
		Type of conductor and conductor cross-section	AWG 18/19	
	Evaluation	passed		

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Test for damage to and accidental loosening of conductors	Standard	DIN EN 60999-1 section 9.4 / 12.00		
	Requirement	0.2 kg		
	Conductor type	Type of conductor and conductor cross-section	AWG 28/1	
		Type of conductor and conductor cross-section	AWG 28/19	
	Evaluation	passed		
	Requirement	0.3 kg		
	Conductor type	Type of conductor and conductor cross-section	solid 0.5 mm ²	
		Type of conductor and conductor cross-section	stranded 0.5 mm ²	
	Evaluation	passed		
	Requirement	0.4 kg		
	Conductor type	Type of conductor and conductor cross-section	solid 1.0 mm ²	
		Type of conductor and conductor cross-section	stranded 1.0 mm ²	
		Type of conductor and conductor cross-section	AWG 18/1	
Type of conductor and conductor cross-section		AWG 18/19		
Evaluation	passed			
Pull-out test	Standard	DIN EN 60999-1 section 9.4 / 12.00		
	Requirement	≥5 N		
	Conductor type	Type of conductor and conductor cross-section	AWG 28/1	
		Type of conductor and conductor cross-section	AWG 28/19	
	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	
	Requirement	≥35 N		
	Conductor type	Type of conductor and conductor cross-section	H05V-U1	
		Type of conductor and conductor cross-section	H05V-K1	
		Type of conductor and conductor cross-section	AWG 18/1	
		Type of conductor and conductor cross-section	AWG 18/19	

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Technical data**Classifications**

ETIM 6.0	EC002638	ETIM 7.0	EC002638
ETIM 8.0	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		

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	<ul style="list-style-type: none"> • Additional colours on request • Gold-plated contact surfaces on request • Rated current related to rated cross-section & min. No. of poles. • Wire end ferrule with plastic collar to DIN 46228/4 • Wire end ferrule without plastic collar to DIN 46228/1 • P on drawing = pitch • We recommend crimp shape A for wire-end ferrules with crimping tool PZ 6/5 (order no. 9011460000) for the larger wire cross-sections. • 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.

Approvals

Approvals



ROHS	Conform
UL File Number Search	E60693

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Technical data

Downloads

Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
Engineering Data	CAD data – STEP
Engineering Data	EPLAN, WSCAD
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 PO OMNIMATE EN

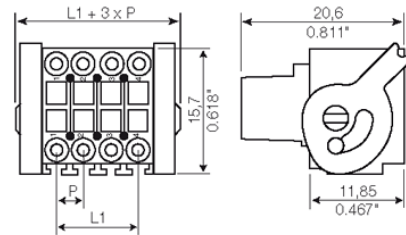
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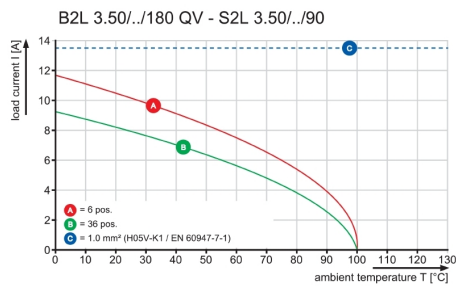
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Drawings

Dimensional drawing



Graph



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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	B2L/S2L 3.50 KO BK BX	Version	Product data	Packaging
Order No.	1849740000		PCB plug-in connector, Accessories, Coding element, black, Number	Box
GTIN (EAN)	4032248378203		of poles: 1	
Qty.	100 pc(s).			
Type	B2L/S2L 3.50 KO OR BX	Version	Product data	Packaging
Order No.	1849730000		PCB plug-in connector, Accessories, Coding element, orange, Number	Box
GTIN (EAN)	4032248378197		of poles: 1	
Qty.	100 pc(s).			

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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.

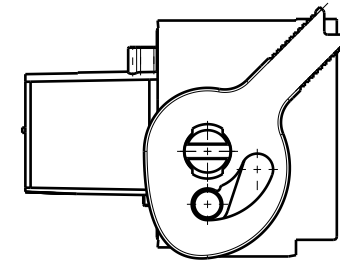
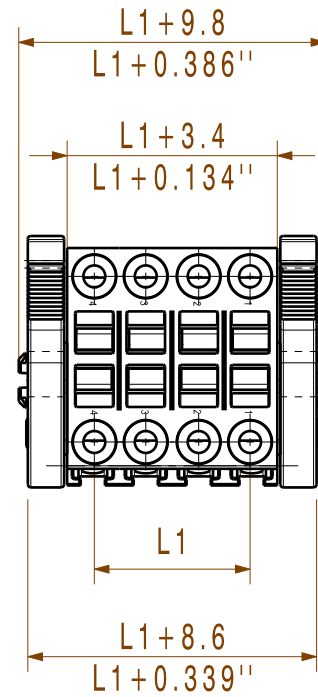
The two half shells clip together securely, enclose the plug completely and offer the following functions:




- 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

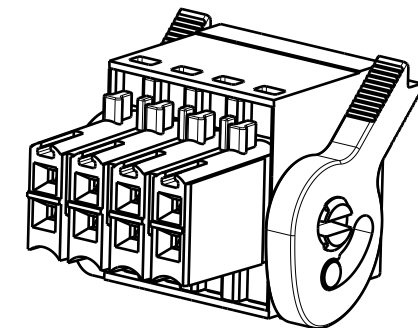
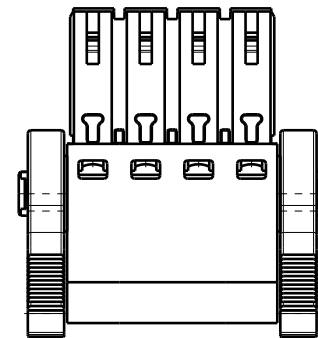
Weidmüller hoods offer added stability, better identification, complete compatibility and versatility. The result: maximum reliability and user-friendliness in any application.

General ordering data

Type	B2L 3.50 AH08 BK BX	Version	Product data	Packaging
Order No.	1781570000	PCB plug-in connector, Accessories, Hood, black, Number of poles: 8		Box
GTIN (EAN)	4032248172627			
Qty.	10 pc(s).			



- conductor 
-  screwdriver
-  conductor






36	2,345	59,50
34	2,207	56,00
32	2,069	52,50
30	1,931	49,00
28	1,793	45,50
26	1,655	42,00
24	1,517	38,50
22	1,379	35,00
20	1,241	31,50
18	1,103	28,00
16	0,965	24,50
14	0,827	21,00
12	0,689	17,50
10	0,551	14,00
8	0,413	10,50
6	0,275	7,00
n	L1[inch]	L1 [mm]

shown: B2L 3.5/08LH QV4 BED

For the mounting of PCBs, it should be noted that the rated data given in the catalogue relates only to the connection elements. The necessary creepage and clearance paths must be observed in connection with the respective applicant in accordance to VDE 0110. The current-carrying capacity and pitch tolerance is to be determined according to DIN IEC 326 part 3 very fine.

Weidmüller connectors are tested to the DIN VDE 0627 standard, and are valid for its field of application. Provided that the connectors are used to the intended purpose, all requirements with respect to the occurring of electrical, mechanical, thermic and corrosive stress will be satisfied.

	GENERAL TOLERANCE: DIN ISO 2768-mK		87939/5 03.05.16 HELIS_MA 01		Cat.no.: .	
			3 39691 02		Drawing no. Issue no.	
Modification		Date Name		Sheet 00 of 00 sheets		
		Drawn 02.07.2007 NICKOL_M		B2L 3.50/.../...PRT BUCHSENLEISTE SOCKET BLOCK		
Scale: 2:1		Responsible AMANN_A				
Supersedes: .		Checked 13.05.2016 HELIS_MA				
		Approved HECKERT_M		Product file: B2L QV 7367		

Mouser Electronics

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