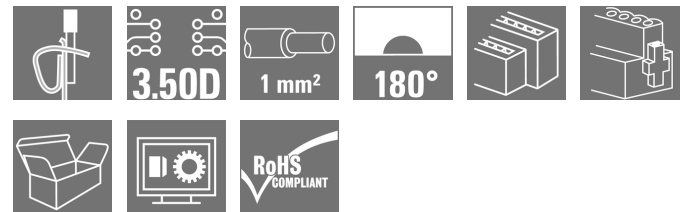


B2L 3.50/04/180F AU BK BX

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

www.weidmueller.com

Product image



Similar to illustration

Component density redefined: the future standard for signal connection

A maximum number of connections requiring minimum space - the double-row B2L sets the bar for field connections of typical sensor cables up to 1 mm² very high and closes the gap between "less space" and "more functions".

The result is a connection solution for standard industrial cables in 1.75 pitch - 30% smaller than equivalent solutions in 2.5 pitch, and with the 140% robustness of the 3.5 pitch

Dimensions: double the connection density with a 3.5mm pitch size

Connection system: tried and tested maintenance-free Weidmüller tension clamp connection

The basic application advantages:

Efficient: maximum component density on the PCB

Suitable for industrial use - minimum dimensions, maximum robustness

Process-optimised - automatic assembly and reflow soldering, fast connection

User-friendly - patented release lever for the easy release of larger numbers of poles

Application-oriented: easy labelling and reliable coding despite compact dimensions

Miniaturisation is more than just a larger number of functions within a smaller space:

Each reduction in size decreases space requirements and so reduces overall system costs for the end customer. Thus, Weidmüller fulfils a growing demand in the engineering and industrial automation sectors.

General ordering data

Version	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 4, 180°, Tension-clamp connection, Clamping range, max.: 1 mm ² , Box
Order No.	1967750000
Type	B2L 3.50/04/180F AU BK BX
GTIN (EAN)	4032248666126
Qty.	132 pc(s).
Product data	IEC: 250 V / 10.3 A / 0.2 - 1 mm ² UL: 300 V / 10 A / AWG 28 - AWG 16
Packaging	Box

Creation date March 26, 2021 3:54:26 PM CET

B2L 3.50/04/180F AU BK BX**Weidmüller Interface GmbH & Co. KG**

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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
Net weight	2.622 g	Width	13.8 mm
Width (inches)	0.543 inch		

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	4		
L1 in mm	3.5 mm		
L1 in inches	0.138 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	≥ 200		
Plugging force/pole, max.	5 N		
Pulling force/pole, max.	4 N		
Tightening torque	Torque type	Screw flange	
	Usage information	Tightening torque	min. 0.15 Nm max. 0.2 Nm

Material data

Insulating material	PBT	Colour	black
Colour chart (similar)	RAL 9011	Insulation strength	≥ 10 ⁸ Ω
UL 94 flammability rating	V-0	Contact material	Copper alloy
Contact surface	Gold-plated	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

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Technical data

Flexible, max. H05(07) V-K	1 mm ²
w. plastic collar ferrule, DIN 46228 pt 4, 0.14 mm ² min.	
w. plastic collar ferrule, DIN 46228 pt 4, 0.34 mm ² max.	
w. wire end ferrule, DIN 46228 pt 1, 0.14 mm ² min.	
w. wire end ferrule, DIN 46228 pt 1, 0.34 mm ² max.	


Clampable conductor	Cross-section for conductor connection	Type	fine-wired
		nominal	0.14 mm ²
	wire end ferrule	Stripping length	nominal 10 mm
		Recommended wire-end ferrule	HO.14/12 GR SV
Cross-section for conductor connection	Type	fine-wired	
	nominal	0.25 mm ²	
wire end ferrule	Stripping length	nominal 10 mm	
	Recommended wire-end ferrule	HO.25/12 HBL	

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)	10.3 A
Rated current, max. number of poles (Tu=20°C)	8.7 A	Rated current, min. number of poles (Tu=40°C)	8.9 A
Rated current, max. number of poles (Tu=40°C)	7.4 A	Rated voltage for surge voltage class / pollution degree II/2	250 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	2.5 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)	5 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.		

B2L 3.50/04/180F AU BK BX**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

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Technical data**Rated data acc. to UL 1059**

Institute (UR)



Certificate No. (UR)

E60693

Rated voltage (Use group B / UL 1059) 300 V

Rated voltage (Use group C / UL 1059) 50 V

Rated current (Use group B / UL 1059) 10 A

Rated current (Use group C / 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 30 mm

VPE width 135 mm

VPE height 350 mm

Classifications

ETIM 6.0 EC002638

ETIM 7.0 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

- 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
- 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

Creation date March 26, 2021 3:54:26 PM CET

Catalogue status 12.03.2021 / We reserve the right to make technical changes.

Data sheet

B2L 3.50/04/180F AU BK BX

Weidmüller Interface GmbH & Co. KG
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Technical data

Downloads

Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
Engineering Data	EPLAN, WSCAD

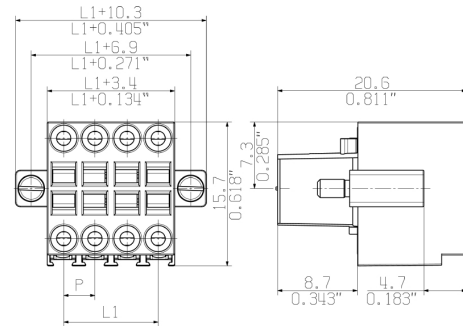
B2L 3.50/04/180F AU BK BX

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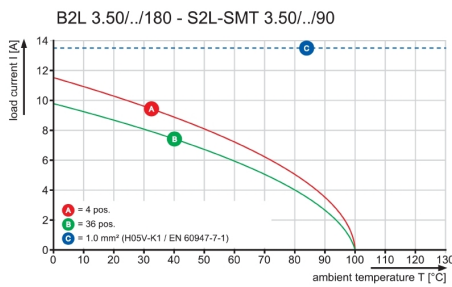
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Drawings

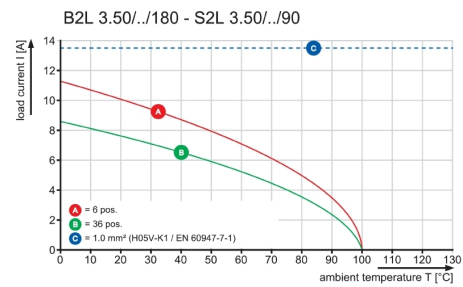
Dimensional drawing



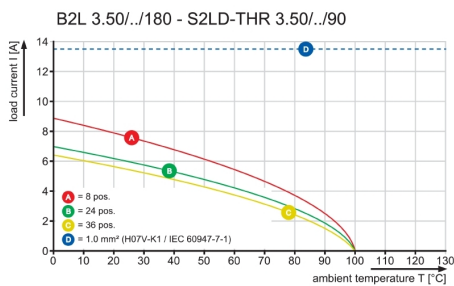
Graph



Graph



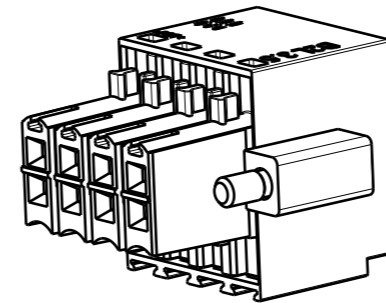
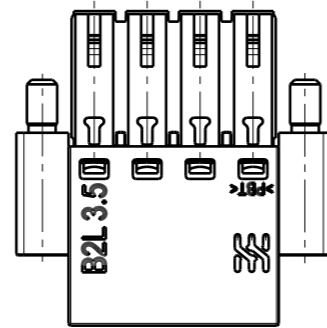
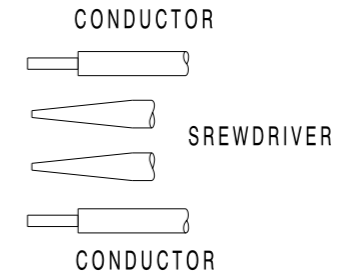
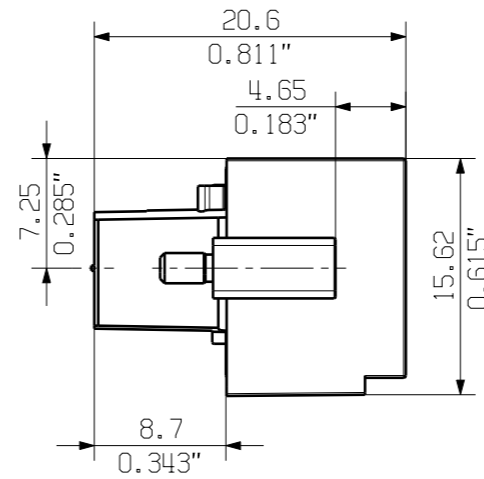
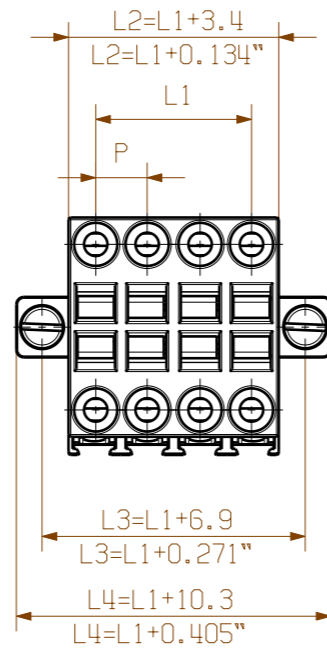
Graph



MASSE OHNE TOLERANZ SIND KEINE PRUEFMASSE
 DIMS. WITHOUT TOLERANCE ARE NOT CONTROL DIMS.

DIE DEUTSCHE VERSION IST VERBINDLICH
 THE GERMAN VERSION IS BINDING

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 ZUWIDERHANDLUNGEN VERPFLICHTEN ZU SCHADENERSATZ. ALLE RECHTE FUER DEN FALL DER PATENT-, GEBRAUCHSMUSTER- ODER GESCHMACKSMUSTEREINTRAGUNG VORBEHALTEN.
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36	59,5	2,344	62,9	2,479	66,4	2,617	69,8	2,751
34	56,0	2,206	59,4	2,341	62,9	2,479	66,3	2,613
32	52,5	2,069	55,9	2,203	59,4	2,341	62,8	2,475
30	49,0	1,931	52,4	2,065	55,9	2,203	59,3	2,337
28	45,5	1,793	48,9	1,927	52,4	2,065	55,8	2,199
26	42,0	1,655	45,4	1,789	48,9	1,927	52,3	2,061
24	38,5	1,517	41,9	1,651	45,4	1,789	48,8	1,923
22	35,0	1,379	38,4	1,513	41,9	1,651	45,3	1,785
20	31,5	1,241	34,9	1,375	38,4	1,513	41,8	1,647
18	28,0	1,103	31,4	1,237	34,9	1,375	38,3	1,509
16	24,5	0,965	27,9	1,099	31,4	1,237	34,8	1,371
14	21,0	0,827	24,4	0,961	27,9	1,099	31,3	1,233
12	17,5	0,690	20,9	0,823	24,4	0,961	27,8	1,095
10	14,0	0,552	17,4	0,685	20,9	0,823	24,3	0,957
8	10,5	0,414	13,9	0,547	17,4	0,685	20,8	0,819
6	7,0	0,276	10,4	0,409	13,9	0,547	17,3	0,681
4	3,5	0,138	6,9	0,271	10,4	0,409	13,8	0,543
n	L1	L1(inch)	L2	L2(inch)	L3	L3(inch)	L4	L4(inch)

n = POLZAHL/NO OF POLES

P = RASTER/PITCH

SHOWN: B2L 3.50/08/180F

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 components are used to the intended purpose, all requirements with respect to the occurring of electrical, mechanical, thermic and corrosive stress will be satisfied.

DIN ISO 2768-m	69611/5 25.04.13 HELIS_MA 00		CAT.NO.:	
	MODIFICATION		Weidmüller C 55622 02 DRAWING NO. ISSUE NO.	
	DATE	NAME	B2L 3.50/.. /180... BUCHSENLEISTE SOCKET BLOCK	
	DRAWN	HELIS_MA		
RESPONSIBLE	LANG_T			
SCALE: 2:1	CHECKED	22.05.2013	HECKERT_M	PRODUCT FILE: B2L 3.50
SUPERSEDES: 26643/31	APPROVED	HECKERT_M	SHEET 02 OF 03 SHEETS	

