BLZ 5.00/04/180 SN OR BX

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

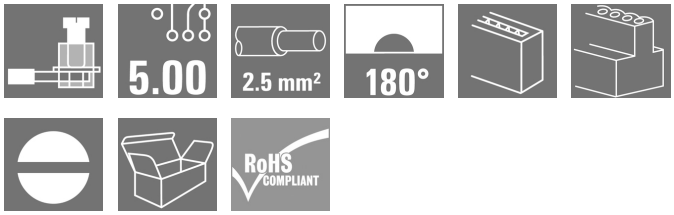
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Do not use product for new developments

Product image



Similar to illustration



Female plugs with clamping-yoke screw for wire connection with straight (180°) outlet direction. The female plugs provide space for labelling and can be coded.

General ordering data

Version	PCB plug-in connector, female plug, 5.00 mm, Number of poles: 4, 180°, Clamping yoke connection, Clamping range, max. : 3.31 mm², Box
Order No.	1571370000
Type	BLZ 5.00/04/180 SN OR BX
GTIN (EAN)	4008190050641
Qty.	100 pc(s).
Product data	IEC: 400 V / 19 A / 0.5 - 2.5 mm² UL: 300 V / 15 A / AWG 26 - AWG 12
Packaging	Box
Delivery status	This article will no longer be available in the future.
Available until	2023-07-30
Alternative product	1954470000

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Technical data

Dimensions and weights

Depth	20.1 mm	Depth (inches)	0.791 inch
Height	15.2 mm	Height (inches)	0.598 inch
Width	20 mm	Width (inches)	0.787 inch
Net weight	6.02 g		

System Parameters

Product family	OMNIMATE Signal - series BL/SL 5.00	Type of connection	Field connection
Wire connection method	Clamping yoke connection	Pitch in mm (P)	5 mm
Pitch in inches (P)	0.197 "	Conductor outlet direction	180°
Number of poles	4	L1 in mm	15 mm
L1 in inches	0.591 "	Number of rows	1
Pin series quantity	1	Rated cross-section	2.5 mm²
Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch	Touch-safe protection acc. to DIN VDE 0470	IP20 plugged/ IP10 unplugged
Protection degree	IP20	Volume resistance	≤5 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
Plugging force/pole, max.	10 N	Pulling force/pole, max.	8 N

Material data

Insulating material	PBT	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.	100 °C	Temperature range, installation, min.	-25 °C
Temperature range, installation, max.	100 °C		

Conductors suitable for connection

Clamping range, min.	0.13 mm²	Clamping range, max.	3.31 mm²
Wire connection cross section AWG, min.	AWG 26	Wire connection cross section AWG, max.	AWG 12
Solid, min. H05(07) V-U	0.5 mm²	Solid, max. H05(07) V-U	2.5 mm²
Flexible, min. H05(07) V-K	0.5 mm²	Flexible, max. H05(07) V-K	2.5 mm²
w. plastic collar ferrule, DIN 46228 pt 4, min.	0.5 mm²	w. plastic collar ferrule, DIN 46228 pt 4, max.	2.5 mm²
w. wire end ferrule, DIN 46228 pt 1, min.	0.5 mm²	w. wire end ferrule, DIN 46228 pt 1, max.	2.5 mm²
Plug gauge in accordance with EN 60999 a x b; ø	2.8 mm x 2.0 mm; 2.4 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.

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Technical data

Rated data acc. to IEC

tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. number of poles (Tu=20°C)	19 A
Rated current, max. number of poles (Tu=20°C)	14.5 A	Rated current, min. number of poles (Tu=40°C)	16 A
Rated current, max. number of poles (Tu=40°C)	12.5 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 120 A

Rated data acc. to CSA

Institute (CSA)		Certificate No. (CSA)	200039-1121690
Rated voltage (Use group B / CSA)	300 V	Rated voltage (Use group D / CSA)	300 V
Rated current (Use group B / CSA)	15 A	Rated current (Use group D / CSA)	10 A
Wire cross-section, AWG, min.	AWG 26	Wire cross-section, AWG, max.	AWG 12
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)	300 V	Rated voltage (Use group D / UL 1059)	300 V
Rated current (Use group B / UL 1059)	15 A	Rated current (Use group D / UL 1059)	10 A
Wire cross-section, AWG, min.	AWG 26	Wire cross-section, AWG, max.	AWG 12
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Packing

Packaging	Box	VPE length	227 mm
VPE width	133 mm	VPE height	46 mm

Classifications

ETIM 6.0	EC002638	ETIM 7.0	EC002638
ETIM 8.0	EC002638	ETIM 9.0	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

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Technical data

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

Downloads

Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
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

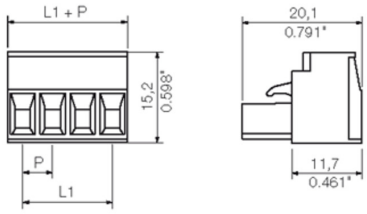
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Drawings

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	BLZ AH 4 SW	Version	Product data	Packaging
Order No.	1705210000	PCB plug-in connector, Accessories, Hood, black, Number of poles: 4		Box
GTIN (EAN)	4008190333065			
Qty.	10 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	BLZ/SL KO OR BX	Version	Product data	Packaging
Order No.	1573010000	PCB plug-in connector, Accessories, Coding element, orange, Number		Box
GTIN (EAN)	4008190048396	of poles: 1		
Qty.	100 pc(s).			

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Accessories

Type	BLZ/SL KO BK BX	Version	Product data	Packaging
Order No.	1545710000	PCB plug-in connector, Accessories, Coding element, black, Number		Box
GTIN (EAN)	4008190087142	of poles: 1		
Qty.	50 pc(s).			

Strain reliefs



For frequent load changes: the "trailer coupling" for plug-in connectors.
The strain relief can do more than just relieve the strain on conductors:
Simply clip onto the plug and
- bundle conductors
- guide cables
- use as a connection and disconnection aid

No damage to the connecting points, clear, tidy wiring and easy to handle.
User advantages: permanent heavy-duty connections for harsh industrial environments and convenient operation ensure improved system availability.

General ordering data

Type	BLZ 5.00 ZE04 OR BX	Version	Product data	Packaging
Order No.	1652100000	PCB plug-in connector, Accessories, Strain relief, orange, Number of		Box
GTIN (EAN)	4008190401771	poles: 4		
Qty.	50 pc(s).			

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

DIE DEUTSCHE VERSION IST VERBINDLICH
THE GERMAN VERSION IS BINDING

WEITERGABE SOWIE VERVIELFAELTIGUNG DIESES DOKUMENTS, VERWERTUNG UND MITTEILUNG SEINES INHALTS SIND VERBOTEN, SOWEIT NICHT AUSDRUECKLICH GESTATTET.
ZUWIDERHANDLUNGEN VERPFLICHTEN ZU SCHADENERSATZ. ALLE RECHTE FUER DEN FALL DER PATENT-, GEBRAUCHSMUSTER- ODER GESCHMACKSMUSTEREINTRAGUNG VORBEHALTEN.
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Technical Data

Rev.

Material data		
Insulation material type		PBT
Insulation material colours		see order sheet
Insulation material flammability class	UL94	V-0
Insulation resistance	MOhm	$>10^5$
Contact base material		Cu-alloy
Contact plating		tin plated

System characteristic values	with counterpart	SL5.00 180°	
Pitch **P**	mm/inch	5.00/0.197	
Number of rows		1	1)
Dielectric strength (r.m.s withstand voltage)	kV	>2.21	1)
Mechanical operating cycles acc. to DIN IEC 512		25	
Pull in force (max)	N/pole	10	
Pull out force (max)	N/pole	8	
Through resistance (typical)	mOhm	2.0	
Operating temperature range	°C	-55...+100	2)
Degree of protection acc. to VDE 0106 (plugged/unplugged)		finger safe / finger safe	
Degree of protection acc. to DIN EN 60529 (plugged/unplugged)		IP20 / IP20	
Conductor connection method		clamping yoke	
Screw size		M2.5	
Screw torque max acc. to EN 60999	Nm	0.4	
Screw driver type		SD 0.6 x 3.5	

Application notes		
Coding possibility	yes/no	yes (accessory)
Joinable without loss of pitch	yes/no	yes
Manual assembly of modules	yes/no	no
Max number of poles	n	24

Conductor		
Clamping range	mm^2	0.08...2.5
"e" solid H05(07) V-U	mm^2	0.5...2.5
"f" flexible H05(07) V-K	mm^2	0.5...2.5
"f" with ferrule acc. to DIN 46228/1	mm^2	0.5...2.5
... with plastic collar acc. to DIN 46228/4	mm^2	0.5...1.5
Conductor insulation stripping length	mm/inch	7/0.276
Conductor insulation diameter max.	mm	n.a.
Two wire clamping range	mm^2	n.a.
Gauge to EN 60999 (a x b ; Ø)	mm	2.8 x 2.4; 2.4

IEC 664-1 / VDE0110 (4.97) rated data					
Rated cross section acc. to EN 60999	mm^2	2.5			
Rated current @ 20°C ambient (together with SL5.00/2)	A	18			3)
Rated current @ 40°C ambient (together with SL5.00/2)	A	15			3)
Overvoltage category / Pollution degree		**III/3**	**III/2**	**II/2**	
Rated voltage	V	250	320	400	
Rated impulse voltage	kV	4.0	4.0	4.0	

UL 1059 rated data — File No.: E60693		B	C	D
Rated voltage	V	300	-	300
Rated current	A	15	-	10
AWG wire range (field wiring / factory wiring)		22....12		

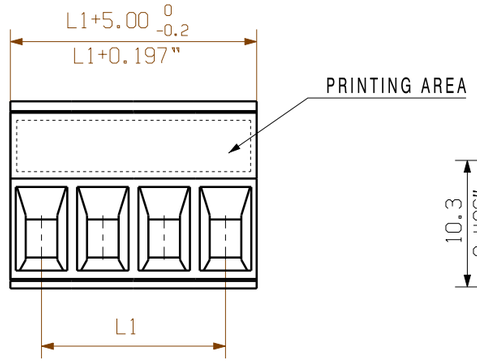
CSA C22.2 rated data — File No.: LR12400		B	C	D
Rated voltage	V	300	-	300
Rated current	A	15	-	10
AWG wire range (field wiring / factory wiring)		26...12		

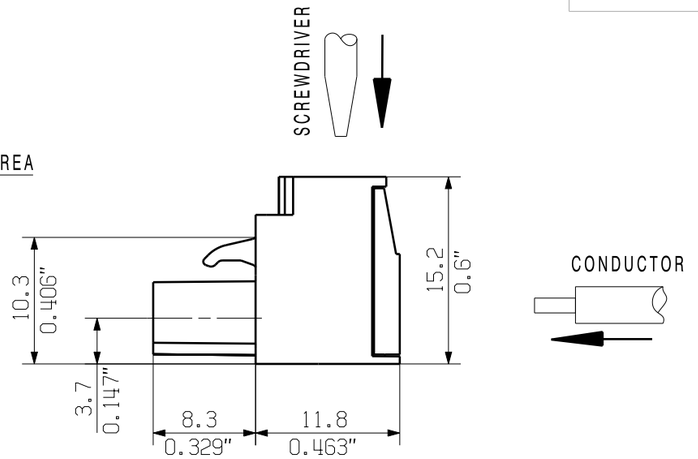
Packaging	carton
Downloads	www.weidmueller.de

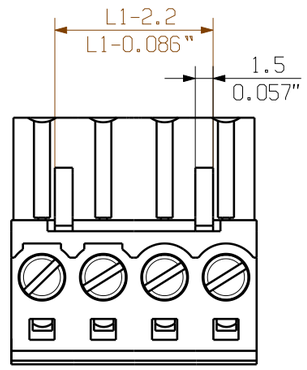
1) Without locking latches
2) Sum of ambient temperature and temperature rise
3) Referred to rated cross section and maximum pole number

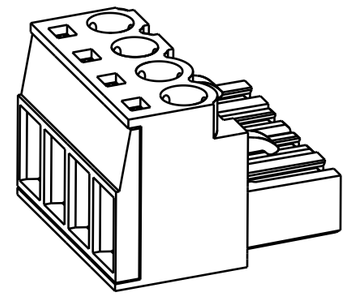
n.a. = not applicable

Subject to technical changes









n	L1 [mm]	L1 [Inch]
24	115,00	4,531
23	110,00	4,334
22	105,00	4,137
21	100,00	3,940
20	95,00	3,743
19	90,00	3,546
18	85,00	3,349
17	80,00	3,152
16	75,00	2,955
15	70,00	2,758
14	65,00	2,561
13	60,00	2,364
12	55,00	2,167
11	50,00	1,970
10	45,00	1,773
9	40,00	1,576
8	35,00	1,379
7	30,00	1,182
6	25,00	0,985
5	20,00	0,788
4	15,00	0,591
3	10,00	0,394
2	5,00	0,197

SHOWN: BLZ 5.00/4

For the mounting of PCBs, it should be noted that the rated data given in the catalogue relates only to the connection elements. The neccessary 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 occuring of electrical, mechanical, thermic and corrosive stress will be satisfied.

RoHS COMPLIANT

METRIC TOLERANCES:
X. = ±0.3
X.X = ±0.1
X.XX = ±0.05

43216/5
11.05.09 HELIS_MA 00
MODIFICATION

CAT.NO.: .

Weidmüller

C 18227 28
DRAWING NO. ISSUE NO.

SHEET 02 OF 06 SHEETS

	DATE	NAME
DRAWN	10.12.2007	HELIS_MA
RESPONSIBLE		HERTEL_S
CHECKED	13.05.2009	HECKERT_M
APPROVED		HECKERT_M

SCALE: 2/1
SUPERSEDES: .

BLZ 5.00/../ 180 (B)

BUCHSENLEISTE
SOCKET BLOCK

PRODUCT FILE: BLZ 5.00 7146