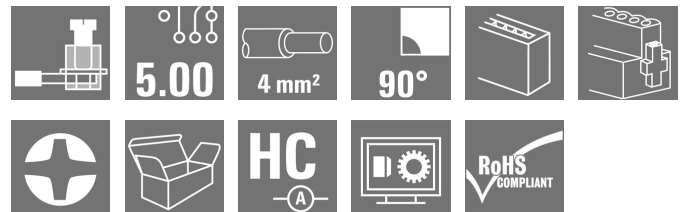


OMNIMATE Signal - series BL/SL 5.00 BLZP 5.00HC/18/90F SN OR BX

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
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Germany
Fon: +49 5231 14-0
Fax: +49 5231 14-292083
www.weidmueller.com

Product image



Similar to illustration

Female plugs with clamping-yoke connection for connecting wires with a right-angle (90° or 270°) outlet direction. The female connectors provide space for labelling and can be coded. Fastened by means of a flange or release latch. They also provide an integrated plus/minus screw, protection against faulty insertion of the wire, and they are delivered with open clamping yokes. HC = High Current.

General ordering data

Type	BLZP 5.00HC/18/90F SN OR BX
Order No.	1959300000
Version	PCB plug-in connector, female plug, 5.00 mm, Number of poles: 18, 90°, Clamping yoke connection, Clamping range, max. : 4 mm², Box
GTIN (EAN)	4032248637799
Qty.	18 pc(s).
Product data	IEC: 400 V / 23 A / 0.2 - 4 mm² UL: 300 V / 20 A / AWG 26 - AWG 12
Packaging	Box

Creation date May 3, 2020 6:41:35 AM CEST

**OMNIMATE Signal - series BL/SL 5.00
BLZP 5.00HC/18/90F SN OR BX**

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Technical data**Dimensions and weights**

Width	100 mm	Width (inches)	3.937 inch
Height	14.1 mm	Height (inches)	0.555 inch
Depth	27.1 mm	Depth (inches)	1.067 inch
Net weight	33.85 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 inch	Conductor outlet direction	90°
Number of poles	18	L1 in mm	85 mm
L1 in inches	3.349 inch	Number of rows	1
Pin series quantity	1	Rated cross-section	4 mm ²
Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch	Volume resistance	≤ 5mΩ
Can be coded	Yes	Stripping length	7 mm
Tightening torque for screw flange, min.	0.15 Nm	Tightening torque for screw flange, max.	0.2 Nm
Tightening torque, min.	0.4 Nm	Tightening torque, max.	0.5 Nm
Clamping screw	M 2.5	Screwdriver blade	0.6 x 3.5, PH 1, PZ 1
Screwdriver blade standard	DIN 5264, ISO 8764/2-PH, ISO 8764/2-PZ	Plugging cycles	25
Plugging force/pole, max.	10 N	Pulling force/pole, max.	9 N

Material data

Insulating material	PBT	Colour	orange
Colour chart (similar)	RAL 2000	Insulating material group	IIIa
Comparative Tracking Index (CTI)	≥ 200	Insulation strength	≥ 10 ⁸ Ω
UL 94 flammability rating	V-0	GWFI	960 °C
Contact material	Copper alloy	Contact surface	tinned
Layer structure of plug contact	4-8 μm Sn hot-dip tinned	Storage temperature, min.	-25 °C
Storage temperature, max.	50 °C	Max. relative humidity during storage	70 %
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 mm ²
Clamping range, max.	4 mm ²
Wire connection cross section AWG, min.	AWG 30
Wire connection cross section AWG, max.	AWG 12
Solid, min. H05(07) V-U	0.2 mm ²
Solid, max. H05(07) V-U	4 mm ²
Flexible, min. H05(07) V-K	0.2 mm ²
Flexible, max. H05(07) V-K	4 mm ²
w. plastic collar ferrule, DIN 46228 pt 4, 0.2 mm ² min.	
w. plastic collar ferrule, DIN 46228 pt 4, 2.5 mm ² max.	
w. wire end ferrule, DIN 46228 pt 1, min.	0.2 mm ²
w. wire end ferrule, DIN 46228 pt 1, max.	4 mm ²

Creation date May 3, 2020 6:41:35 AM CEST

OMNIMATE Signal - series BL/SL 5.00 BLZP 5.00HC/18/90F SN OR BX

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Technical data

Plug gauge in accordance with EN 60999 a x b; ø 2.8 mm x 2.4 mm

Clampable conductor	Cross-section for conductor connection	Type	fine-wired
		nominal	0.5 mm ²
wire end ferrule		Stripping length	nominal 6 mm
		Recommended wire-end ferrule	H0.5/6
Clampable conductor	Cross-section for conductor connection	Type	fine-wired
		nominal	1 mm ²
wire end ferrule		Stripping length	nominal 6 mm
		Recommended wire-end ferrule	H1.0/6
Clampable conductor	Cross-section for conductor connection	Type	fine-wired
		nominal	1.5 mm ²
wire end ferrule		Stripping length	nominal 7 mm
		Recommended wire-end ferrule	H1.5/7
Clampable conductor	Cross-section for conductor connection	Type	fine-wired
		nominal	2.5 mm ²
wire end ferrule		Stripping length	nominal 7 mm
		Recommended wire-end ferrule	H2.5/7
Clampable conductor	Cross-section for conductor connection	Type	fine-wired
		nominal	0.75 mm ²
wire end ferrule		Stripping length	nominal 6 mm
		Recommended wire-end ferrule	H0.75/6


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.

Max. clamping range 4 mm²

Rated data acc. to IEC

tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. number of poles (Tu=20°C)	23 A
Rated current, max. number of poles (Tu=20°C)	18 A	Rated current, min. number of poles (Tu=40°C)	21 A
Rated current, max. number of poles (Tu=40°C)	16 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 C / CSA)	50 V
Rated voltage (Use group D / CSA)	300 V	Rated current (Use group B / CSA)	20 A
Rated current (Use group D / CSA)	20 A	Wire cross-section, AWG, min.	AWG 30
Wire cross-section, AWG, max.	AWG 12	Reference to approval values	Specifications are maximum values, details - see approval certificate.

Data sheet

**OMNIMATE Signal - series BL/SL 5.00
BLZP 5.00HC/18/90F SN OR BX**

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Technical data

Rated data acc. to UL 1059

Institute (cURus)



Certificate No. (cURus)

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)	20 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	35 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	UNSPSC	30-21-18-01

Notes

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 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.

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.

Approvals

Approvals



ROHS

Conform

Data sheet**OMNIMATE Signal - series BL/SL 5.00
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Technical data**Downloads**

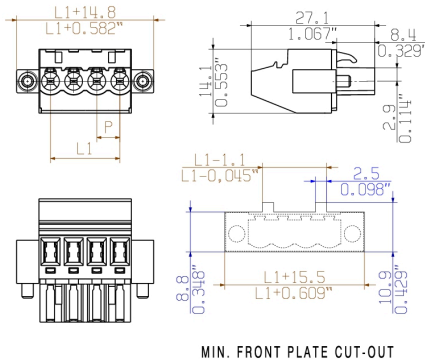
Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
Brochure/Catalogue	FL DRIVES EN MB DEVICE MANUF. EN FL DRIVES DE CAT 2 PORTFOLIOGUIDE EN FL BUILDING SAFETY EN FL APPL LED LIGHTING EN FLIndustr.CONTROLS EN FL MACHINE SAFETY EN FL HEATING ELECTR EN FL APPL INVERTER EN FL BASE STATION EN FL ELEVATOR EN FL POWER SUPPLY EN FL 72H SAMPLE SER EN PO OMNIMATE EN
Engineering Data	EPLAN_WSCAD
Engineering Data	STEP

**OMNIMATE Signal - series BL/SL 5.00
BLZP 5.00HC/18/90F SN OR BX**

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Drawings

Dimensional drawing



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Mating connector (fully pluggable)
SL-SMT 5.00HC/90LF Box


High-temperature-resistant pin header, packed in box or tape. On tape, with 1.5 mm solder pin, optimised for automatic assembly. 3.2 mm solder pin suitable for reflow and wave soldering. The pin headers provide space for labelling and can be coded. HC = High Current.

General ordering data

Type	SL-SMT 5.00HC/18/90LF 3 ...	Version	Product data	Packaging
Order No.	1840510000	PCB plug-in connector, male header, Solder flange, THT/THR solder connection, 5.00 mm, Number of poles: 18, 90°, Solder pin length (l): 3.2 mm, tinned, black, Box	IEC: 400 V / 27.5 A UL: 300 V / 18.5 A	Box
GTIN (EAN)	4032248351350			
Qty.	18 pc(s).			

SLDV-THR 5.00/180F


High-temperature resistant, double level, laterally offset, male connector with flange or solder flange. 1.5 mm solder pin is suitable for reflow soldering. 3.2 mm solder pin suitable for reflow and wave soldering. The pin headers provide space for labelling and can be coded.

General ordering data

Type	SLDV-THR 5.00/36/180F 1 ...	Version	Product data	Packaging
Order No.	1895390000	PCB plug-in connector, male header, Flange, THT/THR solder connection, 5.00 mm, Number of poles: 36, 180°, Solder pin length (l): 1.5 mm, tinned, black, Box	IEC: 400 V / 15 A UL: 300 V / 10 A	Box
GTIN (EAN)	4032248510139			
Qty.	10 pc(s).			
Type	SLDV-THR 5.00/36/180F 3 ...	Version	Product data	Packaging
Order No.	1881470000	PCB plug-in connector, male header, Flange, THT/THR solder connection, 5.00 mm, Number of poles: 36, 180°, Solder pin length (l): 3.2 mm, tinned, black, Box	IEC: 400 V / 15 A UL: 300 V / 10 A	Box
GTIN (EAN)	4032248482764			
Qty.	10 pc(s).			

**OMNIMATE Signal - series BL/SL 5.00
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Mating connector (fully pluggable)
SL-SMT 5.00HC/180LF Box


High-temperature-resistant pin header, packed in box or tape. On tape, with 1.5 mm solder pin, optimised for automatic assembly. 3.2 mm solder pin suitable for reflow and wave soldering. The pin headers provide space for labelling and can be coded. HC = High Current.

General ordering data

Type	SL-SMT 5.00HC/18/180LF ...	Version	Product data	Packaging
Order No.	1841550000	PCB plug-in connector, male header, Solder flange, THT/THR solder connection, 5.00 mm, Number of poles: 18, 180°, Solder pin length (l): 3.2 mm, tinned, black, Box	IEC: 400 V / 27.5 A UL: 300 V / 18.5 A	Box
GTIN (EAN)	4032248352456			
Qty.	18 pc(s).			

SLDV-THR 5.00/180FLF


High-temperature resistant, double level, laterally offset, closed ended male header, with solder flange option. 1.5 mm solder pin suitable for reflow soldering. 3.2 mm solder pin suitable for reflow and wave soldering. The pin headers provide space for labelling and can be coded.

General ordering data

Type	SLDV-THR 5.00/36/180FLF ...	Version	Product data	Packaging
Order No.	1895620000	PCB plug-in connector, male header, Flange / Solder flange, THT/THR solder connection, 5.00 mm, Number of poles: 36, 180°, Solder pin length (l): 1.5 mm, tinned, black, Box	IEC: 400 V / 15 A UL: 300 V / 10 A	Box
GTIN (EAN)	4032248510368			
Qty.	10 pc(s).			
Type	SLDV-THR 5.00/36/180FLF ...	Version	Product data	Packaging
Order No.	1883290000	PCB plug-in connector, male header, Flange / Solder flange, THT/THR solder connection, 5.00 mm, Number of poles: 36, 180°, Solder pin length (l): 3.2 mm, tinned, black, Box	IEC: 400 V / 15 A UL: 300 V / 10 A	Box
GTIN (EAN)	4032248487646			
Qty.	10 pc(s).			

OMNIMATE Signal - series BL/SL 5.00 BLZP 5.00HC/18/90F SN OR BX

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Accessories

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 poles: 4		Box
GTIN (EAN)	4008190401771			
Qty.	50 pc(s).			
Type	BLZ 5.00 ZE08 OR BX	Version	Product data	Packaging
Order No.	1652040000	PCB plug-in connector, Accessories, Strain relief, orange, Number of poles: 8		Box
GTIN (EAN)	4008190401719			
Qty.	50 pc(s).			

Crosshead screwdriver Phillips

Crosshead screwdriver, Phillips, SDK PH DIN 5262, ISO 8764/2-PH, output to ISO 8764-PH, ChromTop tip, SoftFinish grip



General ordering data

Type	SDK PH1	Version
Order No.	9008480000	Screwdriver, Blade width (B): 4.5 mm, Blade length: 80 mm
GTIN (EAN)	4032248056477	
Qty.	1 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	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).			
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).			

Crosshead screwdriver Pozidriv

Crosshead screwdriver, Pozidriv, SDK PZ DIN 5262, ISO 8764/2-PZ, output to ISO 8764/1-PZ, ChromTop tip, SoftFinish grip



General ordering data

Type	SDK PZ1	Version
Order No.	9008530000	Screwdriver, Blade width (B): 4.5 mm, Blade length: 80 mm
GTIN (EAN)	4032248056521	
Qty.	1 pc(s).	

Data sheet

**OMNIMATE Signal - series BL/SL 5.00
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Accessories

Slotted screwdriver

Slotted screwdriver with rounded blade SD DIN 5265, ISO 2380/2, output to DIN 5264, ISO 2380/1. ChromTop tip, SoftFinish grip



General ordering data

Type	SDS 0.6X3.5X100	Version
Order No.	9008330000	Screwdriver, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade thickness (A): 0.6 mm
GTIN (EAN)	4032248056286	
Qty.	1 pc(s).	

Slotted screwdriver

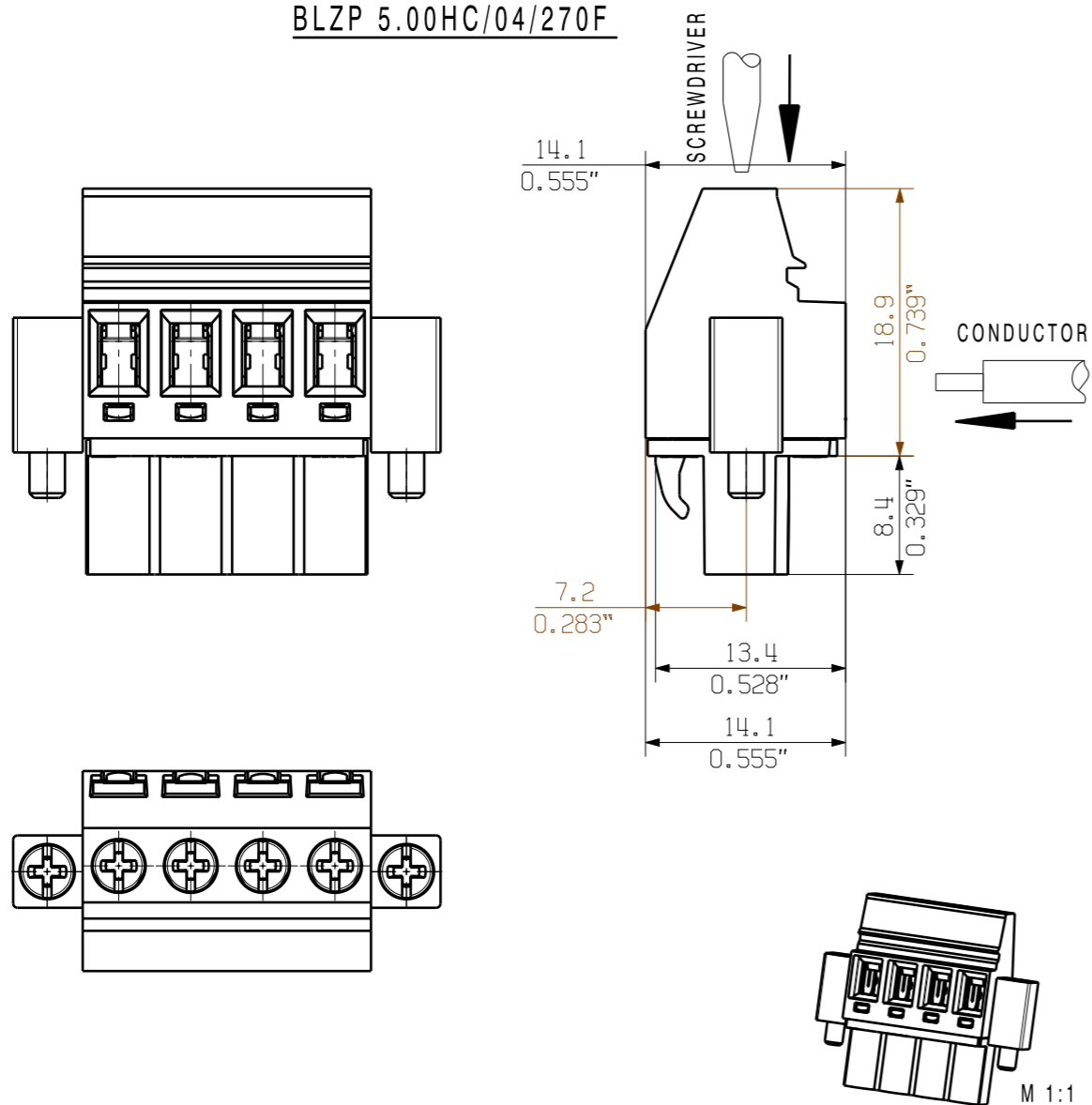
VDE insulated slot-head screwdriver, SDI DIN 7437, ISO 2380/2, drive output acc. to DIN 5264, ISO 2380/1. SoftFinish grip



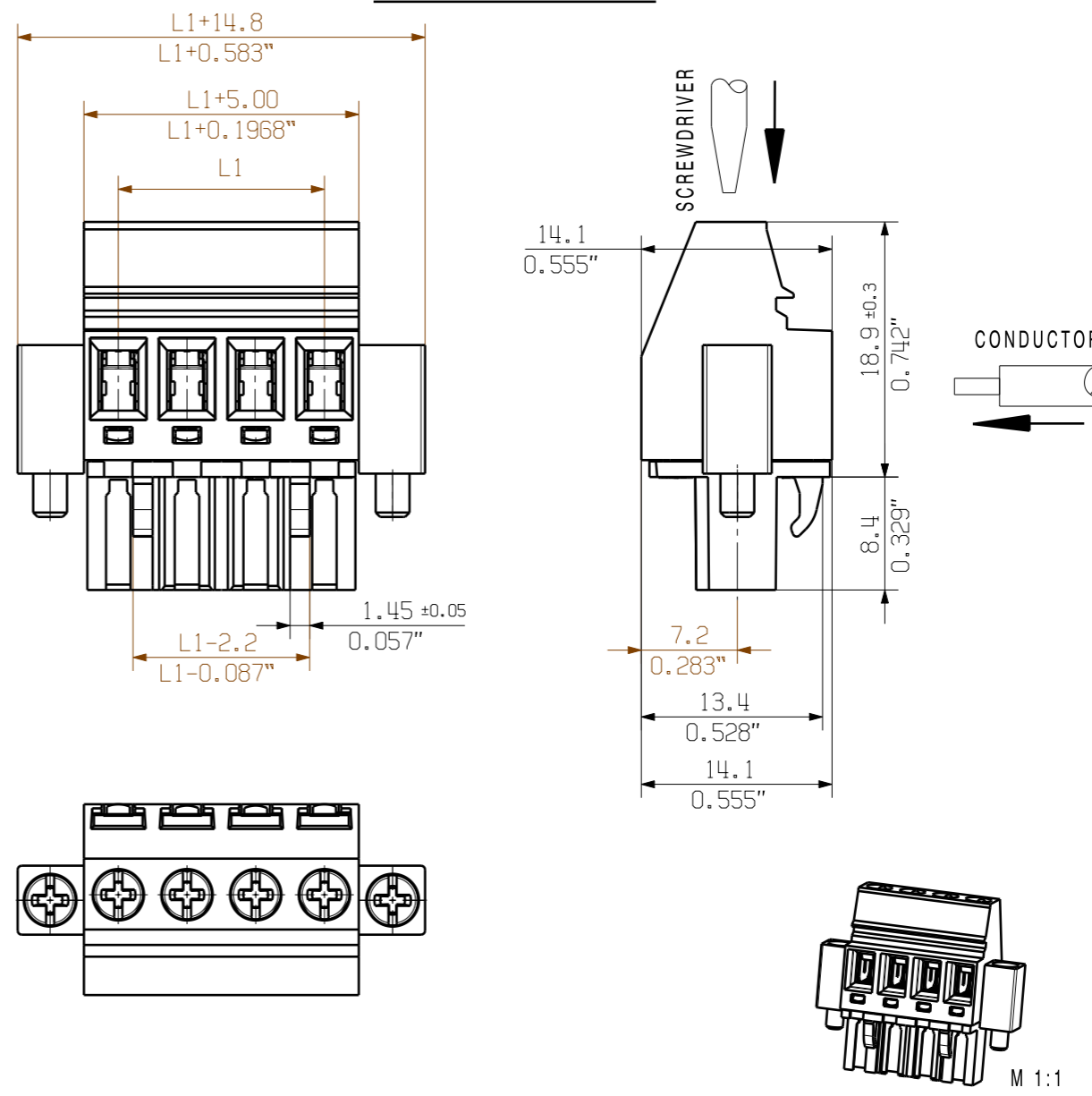
General ordering data

Type	SDIS 0.6X3.5X100	Version
Order No.	9008390000	Screwdriver, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade thickness (A): 0.6 mm
GTIN (EAN)	4032248056354	
Qty.	1 pc(s).	

BLZP 5.00HC/04/270F



BLZP 5.00HC/04/90F



P = 5.00 RASTER/PITCH

n = POLZAHL/NO OF POLES

SHOWN: BLZP 5.00HC/04/90F
BLZP 5.00HC/04/270F

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.

24	115,00	4,53
23	110,00	4,33
22	105,00	4,13
21	100,00	3,94
20	95,00	3,74
19	90,00	3,54
18	85,00	3,35
17	80,00	3,15
16	75,00	2,95
15	70,00	2,76
14	65,00	2,56
13	60,00	2,36
12	55,00	2,17
11	50,00	1,97
10	45,00	1,77
9	40,00	1,57
8	35,00	1,38
7	30,00	1,18
6	25,00	0,98
5	20,00	0,79
4	15,00	0,59
3	10,00	0,39
2	5,00	0,20
n	L1 [mm]	L1 [inch]

GENERAL TOLERANCE: DIN ISO 2768-m

99339/0
19.02.18 HERTEL_S 01

RoHS COMPLIANT

Modification

Scale: 2:1

Supersedes: .

Cat.no.: .

3 42481 06

Drawing no. Issue no.
Sheet 02 of 04 sheets

Weidmüller

BLZP 5.00HC/././90/270
BUCHSENLEISTE
SOCKET BLOCK

Product file: BLZP 5.0X WG 7157

Drawn	19.02.2018	HERTEL_S
Responsible		HERTEL_S
Checked	26.02.2018	HELIS_MA
Approved		LANG_T