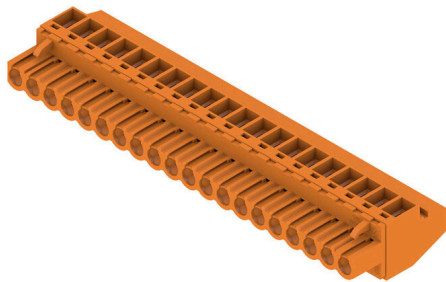


## BLZP 5.00HC/20/90 SN OR BX

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

www.weidmueller.com

### Product image



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

Version	PCB plug-in connector, female plug, 5.00 mm, Number of poles: 20, 90°, Clamping yoke connection, Clamping range, max. : 4 mm <sup>2</sup> , Box
Order No.	<a href="#">1957850000</a>
Type	BLZP 5.00HC/20/90 SN OR BX
GTIN (EAN)	4032248636983
Qty.	18 items
Product data	IEC: 400 V / 23 A / 0.2 - 4 mm <sup>2</sup> UL: 300 V / 20 A / AWG 26 - AWG 12
Packaging	Box

## BLZP 5.00HC/20/90 SN OR BX

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## Technical data

### Approvals

Approvals



ROHS	Conform
UL File Number Search	<a href="#">UL Website</a>
Certificate No. (cURus)	E60693

### Dimensions and weights

Depth	27.2 mm	Depth (inches)	1.0709 inch
Height	14.1 mm	Height (inches)	0.5551 inch
Width	100 mm	Width (inches)	3.937 inch
Net weight	39 g		

### Environmental Product Compliance

RoHS Compliance Status	Compliant without exemption		
REACH SVHC	No SVHC above 0.1 wt%		
Product Carbon Footprint	Cradle to gate	0,496 kg CO2 eq.	

### 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)	5.00 mm		
Pitch in inches (P)	0.197 "		
Conductor outlet direction	90°		
Number of poles	20		
L1 in mm	95.00 mm		
L1 in inches	3.743 "		
Number of rows	1		
Pin series quantity	1		
Rated cross-section	4 mm <sup>2</sup>		
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		
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		
Tightening torque	Torque type	Wire connection	
	Usage information	Tightening torque	min. 0.4 Nm max. 0.5 Nm

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## Technical data

### Material data

Insulating material	PBT	Colour	orange
Colour chart (similar)	RAL 2000	Insulating material group	IIIa
Comparative Tracking Index (CTI)	≥ 200	Insulation resistance	≥ 108 Ω
Moisture Level (MSL)		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 mm <sup>2</sup>
Clamping range, max.	4 mm <sup>2</sup>
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 <sup>2</sup>
Solid, max. H05(07) V-U	4 mm <sup>2</sup>
Flexible, min. H05(07) V-K	0.2 mm <sup>2</sup>
Flexible, max. H05(07) V-K	4 mm <sup>2</sup>
w. plastic collar ferrule, DIN 46228 pt 4, min.	0.2 mm <sup>2</sup>
w. plastic collar ferrule, DIN 46228 pt 4, max.	2.5 mm <sup>2</sup>
w. wire end ferrule, DIN 46228 pt 1, min.	0.2 mm <sup>2</sup>
w. wire end ferrule, DIN 46228 pt 1, max.	4 mm <sup>2</sup>
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 <sup>2</sup>
wire end ferrule		Stripping length	nominal 6 mm
		Recommended wire-end ferrule	<a href="#">H0.5/6</a>
Cross-section for conductor connection		Type	fine-wired
		nominal	1 mm <sup>2</sup>
wire end ferrule		Stripping length	nominal 6 mm
		Recommended wire-end ferrule	<a href="#">H1.0/6</a>
Cross-section for conductor connection		Type	fine-wired
		nominal	1.5 mm <sup>2</sup>
wire end ferrule		Stripping length	nominal 7 mm
		Recommended wire-end ferrule	<a href="#">H1.5/7</a>
Cross-section for conductor connection		Type	fine-wired
		nominal	2.5 mm <sup>2</sup>
wire end ferrule		Stripping length	nominal 7 mm
		Recommended wire-end ferrule	<a href="#">H2.5/7</a>
Cross-section for conductor connection		Type	fine-wired
		nominal	0.75 mm <sup>2</sup>
wire end ferrule		Stripping length	nominal 6 mm
		Recommended wire-end ferrule	<a href="#">H0.75/6</a>

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## Technical data

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)	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)	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.

### Rated data acc. to UL 1059

Institute (cURus)	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	349.00 mm
VPE width	141.00 mm	VPE height	32.00 mm

### 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"> <li>• Additional variants on request</li> <li>• Gold-plated contact surfaces on request</li> <li>• Rated current related to rated cross-section &amp; min. No. of poles.</li> <li>• Wire end ferrule without plastic collar to DIN 46228/1</li> <li>• Wire end ferrule with plastic collar to DIN 46228/4</li> <li>• P on drawing = pitch</li> <li>• 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.</li> <li>• 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</li> <li>• Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months</li> </ul>

**BLZP 5.00HC/20/90 SN OR BX**

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**Technical data**

**Classifications**

ETIM 8.0	EC002638	ETIM 9.0	EC002638
ETIM 10.0	EC002638	ECLASS 14.0	27-46-02-02
ECLASS 15.0	27-46-02-02		

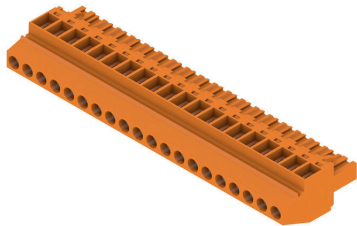
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**Drawings**

**Product image**



**Dimensional drawing**



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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 OR BX	Version
Order No.	<a href="#">1573010000</a>	PCB plug-in connector, Accessories, Coding element, orange, Number
GTIN (EAN)	4008190048396	of poles: 1
Qty.	100 ST	
Type	BLZ/SL KO BK BX	Version
Order No.	<a href="#">1545710000</a>	PCB plug-in connector, Accessories, Coding element, black, Number
GTIN (EAN)	4008190087142	of poles: 1
Qty.	50 ST	

### 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.	<a href="#">2749340000</a>	Screwdriver, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade thickness (A): 0.6 mm
GTIN (EAN)	4050118895568	
Qty.	1 ST	
Type	SDIS 0.6X3.5X100	Version
Order No.	<a href="#">2749810000</a>	Screwdriver, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade thickness (A): 0.6 mm
GTIN (EAN)	4050118897012	
Qty.	1 ST	

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**Accessories****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 X 80	Version	
Order No.	<a href="#">2749410000</a>	Screwdriver, Blade width (B): 4.5 mm, 80 mm, Blade thickness (A): 1	
GTIN (EAN)	4050118895636		
Qty.	1 ST		

**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 X 80	Version	
Order No.	<a href="#">2749440000</a>	Screwdriver, Blade width (B): 14.5 mm, 80 mm, Blade thickness (A): 1	
GTIN (EAN)	4050118895667		
Qty.	1 ST		

## BLZP 5.00HC/20/90 SN OR BX

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## Counterpart

## SL 5.00/135



Male connectors with 135° outlet direction. The solder pin length is optimised for wave flow soldering. The pin headers provide space for labelling and can be coded.

## General ordering data

Type	SL 5.00/20/135 3.2SN OR...	Version
Order No.	<a href="#">1630430000</a>	PCB plug-in connector, male header, open side, THT solder
GTIN (EAN)	4008190203856	connection, 5.00 mm, Number of poles: 20, 135°, Solder pin length
Qty.	20 ST	(l): 3.2 mm, tinned, orange, Box

## SL 5.00/135B



Male connectors with 135° outlet direction. The solder pin length is optimised for wave flow soldering. The pin headers provide space for labelling and can be coded.

## General ordering data

Type	SL 5.00/20/135B 3.2SN O...	Version
Order No.	<a href="#">1630660000</a>	PCB plug-in connector, male header, Dovetails for fixing blocks, THT
GTIN (EAN)	4008190204082	solder connection, 5.00 mm, Number of poles: 20, 135°, Solder pin
Qty.	20 ST	length (l): 3.2 mm, tinned, orange, Box

## SL 5.00/180



Male connectors with straight outlet direction. The solder pin length is optimised for wave flow soldering. The pin headers provide space for labelling and can be coded.

## General ordering data

Type	SL 5.00/20/180 3.2SN OR...	Version
Order No.	<a href="#">1581500000</a>	PCB plug-in connector, male header, open side, THT solder
GTIN (EAN)	4008190044602	connection, 5.00 mm, Number of poles: 20, 180°, Solder pin length
Qty.	20 ST	(l): 3.2 mm, tinned, orange, Box

## BLZP 5.00HC/20/90 SN OR BX

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## Counterpart

### SL 5.00/180B



Male connectors with straight outlet direction. The solder pin length is optimised for wave flow soldering. The pin headers provide space for labelling and can be coded.

#### General ordering data

Type	SL 5.00/20/180B 3.2SN O...	Version
Order No.	<a href="#">1581960000</a>	PCB plug-in connector, male header, Dovetails for fixing blocks, THT
GTIN (EAN)	4008190076658	solder connection, 5.00 mm, Number of poles: 20, 180°, Solder pin
Qty.	20 ST	length (l): 3.2 mm, tinned, orange, Box

### SL 5.00/90



Male connectors with 90° outlet direction. The solder pin length is optimised for wave flow soldering. The pin headers provide space for labelling and can be coded.

#### General ordering data

Type	SL 5.00/20/90 3.2SN OR ...	Version
Order No.	<a href="#">1571300000</a>	PCB plug-in connector, male header, open side, THT solder
GTIN (EAN)	4008190043162	connection, 5.00 mm, Number of poles: 20, 90°, Solder pin length (l):
Qty.	20 ST	3.2 mm, tinned, orange, Box

### SL 5.00/90B



Male connectors with 90° outlet direction. The solder pin length is optimised for wave flow soldering. The pin headers provide space for labelling and can be coded.

#### General ordering data

Type	SL 5.00/20/90B 3.2SN OR...	Version
Order No.	<a href="#">1581040000</a>	PCB plug-in connector, male header, Dovetails for fixing blocks, THT
GTIN (EAN)	4008190011734	solder connection, 5.00 mm, Number of poles: 20, 90°, Solder pin
Qty.	20 ST	length (l): 3.2 mm, tinned, orange, Box

## BLZP 5.00HC/20/90 SN OR BX

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## Counterpart

## SLD 5.00/180G

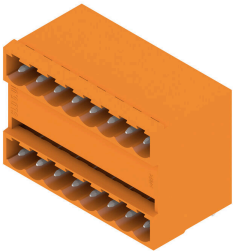


2-tier male header with parallel pin arrangement. The solder pin length is optimised for wave flow soldering. The pin headers provide space for labelling and can be coded.

## General ordering data

Type	SLD 5.00/40/180G 3.2SN ...	Version
Order No.	<a href="#">1614990000</a>	PCB plug-in connector, male header, closed side, THT solder
GTIN (EAN)	4008190041168	connection, 5.00 mm, Number of poles: 40, 180°, Solder pin length
Qty.	10 ST	(l): 3.2 mm, tinned, orange, Box

## SLD 5.00/90G

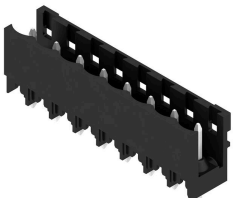


2-tier male header with parallel pin arrangement. The solder pin length is optimised for wave flow soldering. The pin headers provide space for labelling and can be coded.

## General ordering data

Type	SLD 5.00/40/90G 3.2 SN ...	Version
Order No.	<a href="#">1614530000</a>	PCB plug-in connector, male header, closed side, THT solder
GTIN (EAN)	4008190032654	connection, 5.00 mm, Number of poles: 40, 90°, Solder pin length (l):
Qty.	10 ST	3.2 mm, tinned, orange, Box

## SL-SMT 5.00HC/180 Box



High-temperature-resistant, straight, open pin header. Packed in box or tape. On tape and 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/20/180 3...	Version
Order No.	<a href="#">1841110000</a>	PCB plug-in connector, male header, open side, THT/THR solder
GTIN (EAN)	4032248351992	connection, 5.00 mm, Number of poles: 20, 180°, Solder pin length
Qty.	20 ST	(l): 3.2 mm, tinned, black, Box

## BLZP 5.00HC/20/90 SN OR BX

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## Counterpart

## SL-SMT 5.00HC/180G 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/20/180G 3...	Version
Order No.	<a href="#">1841340000</a>	PCB plug-in connector, male header, closed side, THT/THR solder connection, 5.00 mm, Number of poles: 20, 180°, Solder pin length (l): 3.2 mm, tinned, black, Box
GTIN (EAN)	4032248352241	
Qty.	20 ST	

## SL-SMT 5.00HC/90 Box



High-temperature-resistant, 90° angled, open male 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/20/90 3.2...	Version
Order No.	<a href="#">1840070000</a>	PCB plug-in connector, male header, open side, THT/THR solder connection, 5.00 mm, Number of poles: 20, 90°, Solder pin length (l): 3.2 mm, tinned, black, Box
GTIN (EAN)	4032248350810	
Qty.	20 ST	

## SL-SMT 5.00HC/90G 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/20/90G 3....	Version
Order No.	<a href="#">1840300000</a>	PCB plug-in connector, male header, closed side, THT/THR solder connection, 5.00 mm, Number of poles: 20, 90°, Solder pin length (l): 3.2 mm, tinned, black, Box
GTIN (EAN)	4032248351046	
Qty.	20 ST	