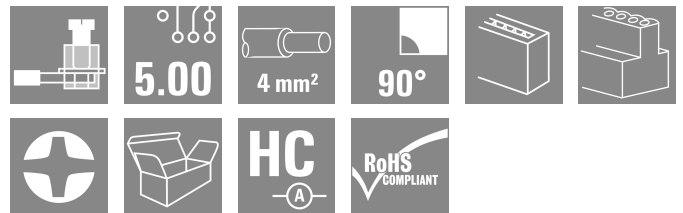


**BLZP 5.00HC/12/90 SN BK BX****Weidmüller Interface GmbH & Co. KG**Klingenbergstraße 26  
D-32758 Detmold  
Germany

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: 12, 90°, Clamping yoke connection, Clamping range, max. : 4 mm², Box
Order No.	<a href="#">1958550000</a>
Type	BLZP 5.00HC/12/90 SN BK BX
GTIN (EAN)	4032248637294
Qty.	30 items
Product data	IEC: 400 V / 23 A / 0.2 - 4 mm² UL: 300 V / 20 A / AWG 26 - AWG 12
Packaging	Box

**BLZP 5.00HC/12/90 SN BK BX**

**Weidmüller Interface GmbH & Co. KG**  
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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	60 mm	Width (inches)	2.3622 inch
Net weight	23.53 g		

**Environmental Product Compliance**

RoHS Compliance Status	Compliant without exemption
REACH SVHC	No SVHC above 0.1 wt%
Product Carbon Footprint	Cradle to gate 0,341 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	12			
L1 in mm	55.00 mm			
L1 in inches	2.167 "			
Number of rows	1			
Pin series quantity	1			
Rated cross-section	4 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			
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	black
Colour chart (similar)	RAL 9011	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 mm²			
Clamping range, max.	4 mm²			
Wire connection cross section AWG, min.	AWG 30			
Wire connection cross section AWG, max.	AWG 12			
Solid, min. H05(07) V-U	0.2 mm²			
Solid, max. H05(07) V-U	4 mm²			
Flexible, min. H05(07) V-K	0.2 mm²			
Flexible, max. H05(07) V-K	4 mm²			
w. plastic collar ferrule, DIN 46228 pt 4, 0.2 mm² min.				
w. plastic collar ferrule, DIN 46228 pt 4, 2.5 mm² max.				
w. wire end ferrule, DIN 46228 pt 1, min.	0.2 mm²			
w. wire end ferrule, DIN 46228 pt 1, max.	4 mm²			
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 mm²	
	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 mm²	
	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 mm²	
	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 mm²	
	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 mm²	
	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 1 s 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	350.00 mm
VPE width	135.00 mm	VPE height	30.00 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>		

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[www.weidmueller.com](http://www.weidmueller.com)**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		

## BLZP 5.00HC/12/90 SN BK BX

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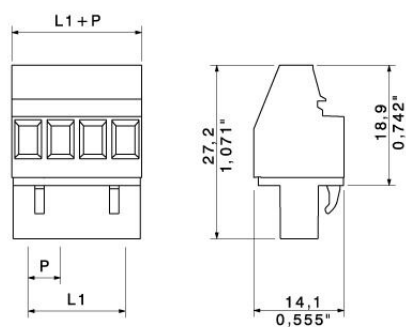
[www.weidmueller.com](http://www.weidmueller.com)

## Drawings

### Product image



### Dimensional drawing



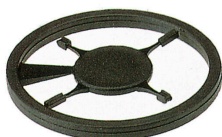
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**Accessories****Coding elements**

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
GTIN (EAN)	4050118895568	thickness (A): 0.6 mm
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
GTIN (EAN)	4050118897012	thickness (A): 0.6 mm
Qty.	1 ST	

**BLZP 5.00HC/12/90 SN BK BX**

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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/12/90 SN BK 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 5.00/12/135 3.2SN OR...	Version
Order No.	<a href="#">1630350000</a>	PCB plug-in connector, male header, open side, THT solder
GTIN (EAN)	4008190203771	connection, 5.00 mm, Number of poles: 12, 135°, Solder pin length
Qty.	50 ST	(I): 3.2 mm, tinned, orange, Box

## SL 5.00/135B

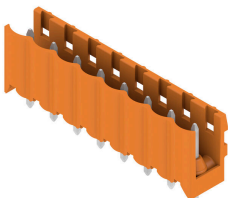


Male connectors with 135° outlet direction. The solder pin length is optimised for wave flow soldering. The pin headers provide space for labelling and can be coded.

## General ordering data

Type	SL 5.00/12/135B 3.2SN O...	Version
Order No.	<a href="#">1630580000</a>	PCB plug-in connector, male header, Dovetails for fixing blocks, THT
GTIN (EAN)	4008190204006	solder connection, 5.00 mm, Number of poles: 12, 135°, Solder pin
Qty.	50 ST	length (I): 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 5.00/12/180 3.2SN OR...	Version
Order No.	<a href="#">1581420000</a>	PCB plug-in connector, male header, open side, THT solder
GTIN (EAN)	4008190133863	connection, 5.00 mm, Number of poles: 12, 180°, Solder pin length
Qty.	50 ST	(I): 3.2 mm, tinned, orange, Box

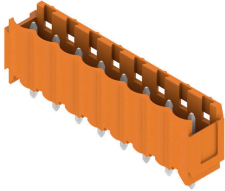
## BLZP 5.00HC/12/90 SN BK BX

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## Counterpart

## SL 5.00/180B

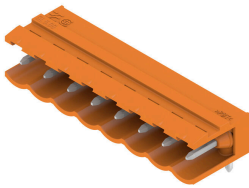


Male connectors with straight outlet direction. The solder pin length is optimised for wave flow soldering. The pin headers provide space for labelling and can be coded.

## General ordering data

Type	SL 5.00/12/180B 3.2SN O...	Version
Order No.	<a href="#">1581880000</a>	PCB plug-in connector, male header, Dovetails for fixing blocks, THT
GTIN (EAN)	4008190185947	solder connection, 5.00 mm, Number of poles: 12, 180°, Solder pin
Qty.	50 ST	length (l): 3.2 mm, tinned, orange, Box

## SL 5.00/90

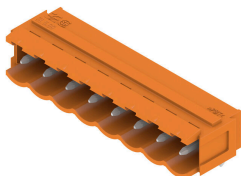


Male connectors with 90° outlet direction. The solder pin length is optimised for wave flow soldering. The pin headers provide space for labelling and can be coded.

## General ordering data

Type	SL 5.00/12/90 3.2SN OR ...	Version
Order No.	<a href="#">1571110000</a>	PCB plug-in connector, male header, open side, THT solder
GTIN (EAN)	4008190140106	connection, 5.00 mm, Number of poles: 12, 90°, Solder pin length (l):
Qty.	50 ST	3.2 mm, tinned, orange, Box
Type	SL 5.00/12/90 4.5SN BK ...	Version
Order No.	<a href="#">1626080000</a>	PCB plug-in connector, male header, open side, THT solder
GTIN (EAN)	4008190197384	connection, 5.00 mm, Number of poles: 12, 90°, Solder pin length (l):
Qty.	50 ST	4.5 mm, tinned, black, 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.

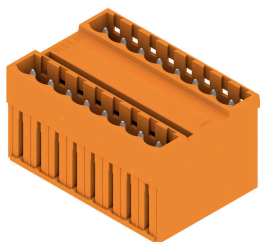
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**Counterpart****General ordering data**

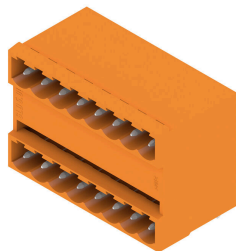
Type	SL 5.00/12/90B 3.2SN OR...	Version
Order No.	<a href="#">1580960000</a>	PCB plug-in connector, male header, Dovetails for fixing blocks, THT
GTIN (EAN)	4008190071851	solder connection, 5.00 mm, Number of poles: 12, 90°, Solder pin
Qty.	50 ST	length (l): 3.2 mm, tinned, orange, Box

**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 5.00/24/180G 3.2SN ...	Version
Order No.	<a href="#">1614910000</a>	PCB plug-in connector, male header, closed side, THT solder
GTIN (EAN)	4008190040222	connection, 5.00 mm, Number of poles: 24, 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.

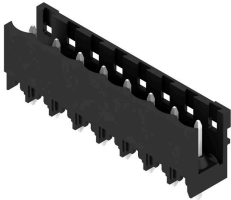
**General ordering data**

Type	SLD 5.00/24/90G 3.2 SN ...	Version
Order No.	<a href="#">1614450000</a>	PCB plug-in connector, male header, closed side, THT solder
GTIN (EAN)	4008190030780	connection, 5.00 mm, Number of poles: 24, 90°, Solder pin length (l):
Qty.	10 ST	3.2 mm, tinned, orange, Box

**BLZP 5.00HC/12/90 SN BK BX**

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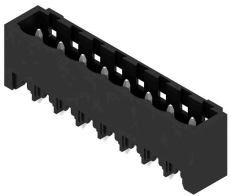
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**Counterpart****SL-SMT 5.00HC/180 Box**

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/12/180 3....	Version
Order No.	<a href="#">1841030000</a>	PCB plug-in connector, male header, open side, THT/THR solder
GTIN (EAN)	4032248351916	connection, 5.00 mm, Number of poles: 12, 180°, Solder pin length
Qty.	50 ST	(I): 3.2 mm, tinned, black, Box

**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/12/180G 3...	Version
Order No.	<a href="#">1841260000</a>	PCB plug-in connector, male header, closed side, THT/THR solder
GTIN (EAN)	4032248352166	connection, 5.00 mm, Number of poles: 12, 180°, Solder pin length
Qty.	50 ST	(I): 3.2 mm, tinned, black, Box

**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/12/90 3.2...	Version
Order No.	<a href="#">1839990000</a>	PCB plug-in connector, male header, open side, THT/THR solder
GTIN (EAN)	4032248350735	connection, 5.00 mm, Number of poles: 12, 90°, Solder pin length (I):
Qty.	50 ST	3.2 mm, tinned, black, Box

**BLZP 5.00HC/12/90 SN BK BX**

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**Counterpart****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/12/90G 3....	Version
Order No.	<a href="#">1840220000</a>	PCB plug-in connector, male header, closed side, THT/THR solder
GTIN (EAN)	4032248350964	connection, 5.00 mm, Number of poles: 12, 90°, Solder pin length (l):
Qty.	50 ST	3.2 mm, tinned, black, Box