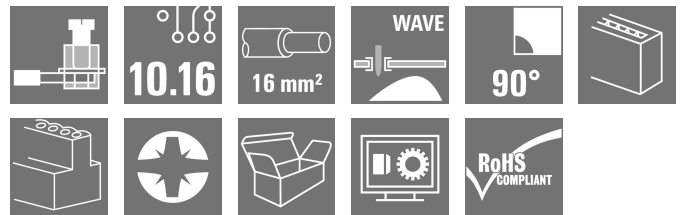


**LU 10.16/02/90 4.5SN GY BX****Weidmüller Interface GmbH & Co. KG**Klingenbergstraße 26  
D-32758 Detmold  
Germany[www.weidmueller.com](http://www.weidmueller.com)**Product image**

This PCB terminal provides connections for 76 A and 16 mm<sup>2</sup> conductor cross-section with proven clamping yoke connection at 10.16 mm pitch, conductor outlet direction in 90° design.

**General ordering data**

Version	Printed circuit board terminals, 10.16 mm, Number of poles: 2, 90°, Solder pin length (l): 4.5 mm, tinned, Pebble grey, Clamping yoke connection, Clamping range, max. : 16 mm <sup>2</sup> , Box
Order No.	<a href="#">1648310000</a>
Type	LU 10.16/02/90 4.5SN GY BX
GTIN (EAN)	4008190291174
Qty.	20 ST
Product data	IEC: 1000 V / 76 A / 0.5 - 16 mm <sup>2</sup> UL: 300 V / 65 A / AWG 26 - AWG 6
Packaging	Box

## LU 10.16/02/90 4.5SN GY BX

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## Technical data

## Approvals

Approvals



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

## Dimensions and weights

Depth	18.3 mm	Depth (inches)	0.7205 inch
Height	33 mm	Height (inches)	1.2992 inch
Height of lowest version	28.5 mm	Width	20.32 mm
Width (inches)	0.8 inch	Net weight	17.91 g

## Environmental Product Compliance

RoHS Compliance Status	Compliant without exemption
REACH SVHC	No SVHC above 0.1 wt%
Product Carbon Footprint	Cradle to gate 0.132 kg CO2eq.

## System parameters

Product family	OMNIMATE Power - series LU	Wire connection method	Clamping yoke connection
Mounting onto the PCB	THT solder connection	Conductor outlet direction	90°
Pitch in mm (P)	10.16 mm	Pitch in inches (P)	0.400 "
Number of poles	2	Pin series quantity	1
Fitted by customer	Yes	Number of rows	1
Max. adjacent poles per row	10	Solder pin length (l)	4.5 mm
Solder pin dimensions	1.2 x 1.2 mm	Solder pin dimensions = d tolerance	0 / -0,15 mm
Solder eyelet hole diameter (D)	1.6 mm	Solder eyelet hole diameter tolerance (D)+	0,1 mm
Number of solder pins per pole	2	Screwdriver blade	1.0 x 5.5
Screwdriver blade standard	DIN 5264	Tightening torque, min.	1.2 Nm
Tightening torque, max.	2.2 Nm	Clamping screw	M 4
Stripping length	12 mm	L1 in mm	10.16 mm
L1 in inches	0.400 "	Touch-safe protection acc. to DIN VDE 0470	IP20 plugged/ IP10 unplugged
Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch	Protection degree	IP20
Volume resistance	0.50 mΩ		

## Material data

Insulating material	Wemid (PA)	Colour	Pebble grey
Colour chart (similar)	RAL 7032	Insulating material group	I
Comparative Tracking Index (CTI)	≥ 600	Moisture Level (MSL)	
UL 94 flammability rating	V-0	Contact material	Cu-alloy
Contact surface	tinned	Layer structure of solder connection	1.5...3 µm Ni / 4...6 µm Sn matt
Storage temperature, min.	-40 °C	Storage temperature, max.	70 °C
Operating temperature, min.	-50 °C	Operating temperature, max.	120 °C
Temperature range, installation, min.	-25 °C	Temperature range, installation, max.	120 °C

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## Technical data

### Conductors suitable for connection

Clamping range, min.	0.14 mm <sup>2</sup>			
Clamping range, max.	16 mm <sup>2</sup>			
Wire connection cross section AWG, min.	AWG 22			
Wire connection cross section AWG, max.	AWG 8			
Solid, min. H05(07) V-U	0.5 mm <sup>2</sup>			
Solid, max. H05(07) V-U	16 mm <sup>2</sup>			
Stranded, min. H07V-R	6 mm <sup>2</sup>			
Stranded, max. H07V-R	16 mm <sup>2</sup>			
Flexible, min. H05(07) V-K	0.5 mm <sup>2</sup>			
Flexible, max. H05(07) V-K	16 mm <sup>2</sup>			
w. plastic collar ferrule, DIN 46228 pt 4, 2.5 mm <sup>2</sup> min.				
w. plastic collar ferrule, DIN 46228 pt 4, 10 mm <sup>2</sup> max.				
w. wire end ferrule, DIN 46228 pt 1, min.	2.5 mm <sup>2</sup>			
w. wire end ferrule, DIN 46228 pt 1, max.	10 mm <sup>2</sup>			
Plug gauge in accordance with EN 60999 a x b; ø	5.4 mm x 5.1 mm; 5.3 mm			
Clampable conductor	Cross-section for conductor connection	Type	fine-wired	
		nominal	2.5 mm <sup>2</sup>	
	wire end ferrule	Stripping length	nominal	12 mm
		Recommended wire-end ferrule	<a href="#">H2.5/12</a>	
		Stripping length	nominal	14 mm
		Recommended wire-end ferrule	<a href="#">H2.5/19D BL</a>	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	4 mm <sup>2</sup>	
	wire end ferrule	Stripping length	nominal	12 mm
		Recommended wire-end ferrule	<a href="#">H4.0/12</a>	
		Stripping length	nominal	14 mm
		Recommended wire-end ferrule	<a href="#">H4.0/20D GR</a>	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	6 mm <sup>2</sup>	
	wire end ferrule	Stripping length	nominal	12 mm
		Recommended wire-end ferrule	<a href="#">H6.0/12</a>	
		Stripping length	nominal	14 mm
		Recommended wire-end ferrule	<a href="#">H6.0/20 SW</a>	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	10 mm <sup>2</sup>	
	wire end ferrule	Stripping length	nominal	15 mm
		Recommended wire-end ferrule	<a href="#">H10.0/22 EB</a>	
		Stripping length	nominal	12 mm
		Recommended wire-end ferrule	<a href="#">H10.0/12</a>	

Reference text Length of ferrules is to be chosen depending on the product and the rated voltage., The outside diameter of the plastic collar should not be larger than the pitch (P)

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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)	76 A
Rated current, max. number of poles (Tu=20°C)	72 A	Rated current, min. number of poles (Tu=40°C)	76 A
Rated current, max. number of poles (Tu=40°C)	62 A	Rated voltage for surge voltage class / pollution degree II/2	1000 V
Rated voltage for surge voltage class / pollution degree III/2	690 V	Rated voltage for surge voltage class / pollution degree III/3	690 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	6 kV
Rated impulse voltage for surge voltage class/ contamination degree III/3	6 kV	Short-time withstand current resistance	2 x 1s with 700 A

## Rated data acc. to CSA

Institute (CSA)	CSA	Certificate No. (CSA)	200039-1198743
Rated voltage (Use group B / CSA)	300 V	Rated voltage (Use group C / CSA)	150 V
Rated voltage (Use group D / CSA)	300 V	Rated current (Use group B / CSA)	65 A
Rated current (Use group C / CSA)	65 A	Rated current (Use group D / CSA)	10 A
Wire cross-section, AWG, min.	AWG 22	Wire cross-section, AWG, max.	AWG 6
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

## Rated data acc. to UL 1059

Institute (UR)	UR	Certificate No. (UR)	E60693
Rated voltage (Use group B / UL 1059)	300 V	Rated voltage (Use group C / UL 1059)	150 V
Rated voltage (Use group D / UL 1059)	600 V	Rated current (Use group B / UL 1059)	65 A
Rated current (Use group C / UL 1059)	65 A	Rated current (Use group D / UL 1059)	5 A
Wire cross-section, AWG, min.	AWG 26	Wire cross-section, AWG, max.	AWG 6
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

## Packing

Packaging	Box	VPE length	127.00 mm
VPE width	89.00 mm	VPE height	39.00 mm

## Type tests

Test: Durability of markings	Test	mark of origin, type identification, type of material, rated cross-section, approval marking CSA, approval marking UL, pitch, durability	
	Evaluation	available	
Test: Clampable cross section	Standard	EN 60999/1993	
	Conductor type	Type of conductor and conductor cross-section	H05V-K0.5
		Type of conductor and conductor cross-section	H05V-U0.5
		Type of conductor and conductor cross-section	H07V-K10
		Type of conductor and conductor cross-section	H07V-U10

## Technical data

		Type of conductor and conductor cross-section	H07V-U16
		Type of conductor and conductor cross-section	AWG8/7
		Type of conductor and conductor cross-section	AWG 8/19
		Type of conductor and conductor cross-section	AWG 22/1
		Type of conductor and conductor cross-section	AWG 22/19
	Evaluation	passed	
	Standard	EN 60947-1/1991 section 8.2.4.3	
	Requirement	0.3 kg	
	Conductor type	Type of conductor and conductor cross-section	H05V-K0.5
		Type of conductor and conductor cross-section	H05V-U0.5
Type of conductor and conductor cross-section		AWG 22/1	
Type of conductor and conductor cross-section		AWG 22/19	
Evaluation	passed		
Requirement	2.0 kg		
Conductor type	Type of conductor and conductor cross-section	H07V-K10	
	Type of conductor and conductor cross-section	H07V-U10	
	Type of conductor and conductor cross-section	AWG8/7	
	Type of conductor and conductor cross-section	AWG 8/19	
Evaluation	passed		
Requirement	2.9 kg		
Conductor type	Type of conductor and conductor cross-section	H07V-U16	
Pull-out test	Evaluation	passed	
	Standard	EN 60947-1/1991 section 8.2.4.4	
	Requirement	≥20 N	
	Conductor type	Type of conductor and conductor cross-section	AWG 22/1
		Type of conductor and conductor cross-section	AWG 22/19
	Evaluation	passed	
	Requirement	≥30 N	
Conductor type	Type of conductor and conductor cross-section	H05V-K0.5	

## Technical data

	Type of conductor and conductor cross-section	H05V-U0.5
Evaluation	passed	
Requirement	≥ 90N	
Conductor type	Type of conductor and conductor cross-section	H07V-K10
	Type of conductor and conductor cross-section	H07V-U10
	Type of conductor and conductor cross-section	AWG8/7
	Type of conductor and conductor cross-section	AWG 8/19
Evaluation	passed	
Requirement	≥100 N	
Conductor type	Type of conductor and conductor cross-section	H07V-U16
Evaluation	passed	

## 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>• 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>• Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months</li> </ul>

## Classifications

ETIM 6.0	EC002643	ETIM 7.0	EC002643
ETIM 8.0	EC002643	ETIM 9.0	EC002643
ETIM 10.0	EC002643	ECLASS 9.0	27-44-04-01
ECLASS 9.1	27-44-04-01	ECLASS 10.0	27-44-04-01
ECLASS 11.0	27-46-01-01	ECLASS 12.0	27-46-01-01
ECLASS 13.0	27-46-01-01	ECLASS 14.0	27-46-01-01
ECLASS 15.0	27-46-01-01		

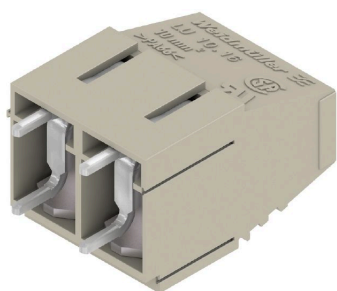
## LU 10.16/02/90 4.5SN GY BX

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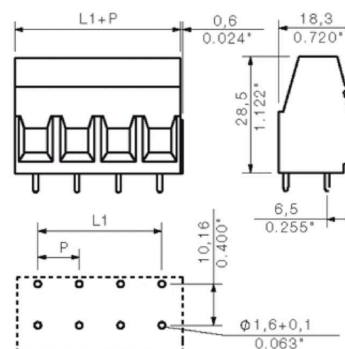
[www.weidmueller.com](http://www.weidmueller.com)

## Drawings

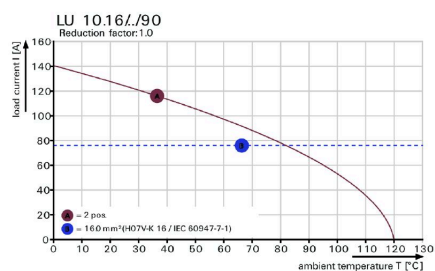
### Product image



### Dimensional drawing



### Graph



**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 1.0X5.5X150	Version
Order No.	<a href="#">9008350000</a>	Screwdriver, Screwdriver
GTIN (EAN)	4032248056316	
Qty.	1 ST	
Type	SDIS 1.0X5.5X125	Version
Order No.	<a href="#">9008410000</a>	Screwdriver, Screwdriver
GTIN (EAN)	4032248056378	
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 PZ2	Version
Order No.	<a href="#">9008540000</a>	Screwdriver, Screwdriver
GTIN (EAN)	4032248056538	
Qty.	1 ST	
Type	SDIK PZ2	Version
Order No.	<a href="#">9008890000</a>	Screwdriver, Screwdriver
GTIN (EAN)	4032248266661	
Qty.	1 ST	