Data sheet

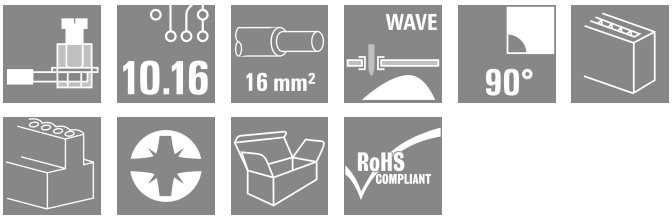
LU 10.16/02/90 4.5SN OR BX

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

www.weidmueller.com

Product image





This PCB terminal provides connections for 76 A and 16 mm² 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, orange, Clamping yoke connection, Clamping range, max. : 16 mm², Box
Order No.	1279390000
Type	LU 10.16/02/90 4.5SN OR BX
GTIN (EAN)	4050118070040
Qty.	20 items
Product data	IEC: 1000 V / 76 A / 0.5 - 16 mm² UL: 300 V / 65 A / AWG 26 - AWG 6
Packaging	Box

Data sheet

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Technical data

Approvals

Approvals	
ROHS	Conform
UL File Number Search	UL Website
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	19.25 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	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	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
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	orange
Colour chart (similar)	RAL 2000	Insulating material group	I
Comparative Tracking Index (CTI)	≥ 600	Insulation resistance	≥ 108 Ω
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		

Conductors suitable for connection

Clamping range, min.	0.14 mm²
Clamping range, max.	16 mm²

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Wire connection cross section AWG, min.	AWG 22			
Wire connection cross section AWG, max.	AWG 8			
Solid, min. H05(07) V-U	0.5 mm²			
Solid, max. H05(07) V-U	16 mm²			
Stranded, min. H07V-R	6 mm²			
Stranded, max. H07V-R	16 mm²			
Flexible, min. H05(07) V-K	0.5 mm²			
Flexible, max. H05(07) V-K	16 mm²			
w. plastic collar ferrule, DIN 46228 pt 4, min.	2.5 mm²			
w. plastic collar ferrule, DIN 46228 pt 4, max.	10 mm²			
w. wire end ferrule, DIN 46228 pt 1, min.	2.5 mm²			
w. wire end ferrule, DIN 46228 pt 1, max.	10 mm²			
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 mm²	
	wire end ferrule	Stripping length	nominal	12 mm
		Recommended wire-end ferrule	H2,5/12	
		Stripping length	nominal	14 mm
		Recommended wire-end ferrule	H2,5/19D BL	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	4 mm²	
	wire end ferrule	Stripping length	nominal	12 mm
		Recommended wire-end ferrule	H4,0/12	
		Stripping length	nominal	14 mm
		Recommended wire-end ferrule	H4,0/20D GR	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	6 mm²	
	wire end ferrule	Stripping length	nominal	12 mm
		Recommended wire-end ferrule	H6,0/12	
		Stripping length	nominal	14 mm
		Recommended wire-end ferrule	H6,0/20 SW	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	10 mm²	
	wire end ferrule	Stripping length	nominal	15 mm
		Recommended wire-end ferrule	H10,0/22 EB	
		Stripping length	nominal	12 mm
		Recommended wire-end ferrule	H10,0/12	
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)			

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

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Technical data

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	125.00 mm
VPE width	90.00 mm	VPE height	40.00 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
		Type of conductor and conductor cross-section	H07V-U16
		Type of conductor and conductor cross-section	AWG8/7

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Technical data

		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	
Test for damage to and accidental loosening of conductors	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
	Evaluation	passed	
Pull-out test	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
		Type of conductor and conductor cross-section	H05V-U0.5
	Evaluation	passed	
	Requirement	≥ 90N	

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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	• Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months

Classifications

ETIM 8.0	EC002643	ETIM 9.0	EC002643
ETIM 10.0	EC002643	ECLASS 14.0	27-46-01-01
ECLASS 15.0	27-46-01-01		

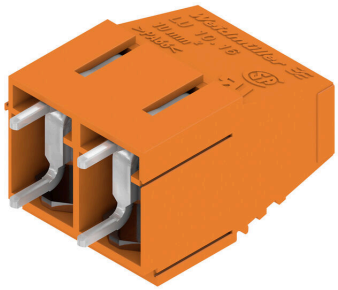
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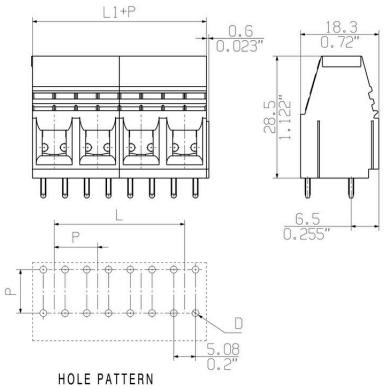
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Drawings

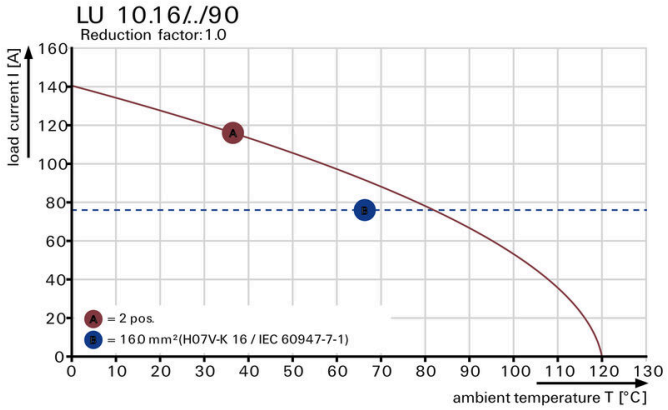
Product image



Dimensional drawing



Graph



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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 1.0X5.5X150	Version
Order No.	9008350000	Screwdriver, Screwdriver
GTIN (EAN)	4032248056316	
Qty.	1 ST	

Type	SDIS 1.0X5.5X125	Version
Order No.	9008410000	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.	9008540000	Screwdriver, Screwdriver
GTIN (EAN)	4032248056538	
Qty.	1 ST	

Type	SDIK PZ2	Version
Order No.	9008890000	Screwdriver, Screwdriver
GTIN (EAN)	4032248266661	
Qty.	1 ST	