

OMNIMATE Power - series LU
LU 10.16/04/90 3.2SN GY BX**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 16

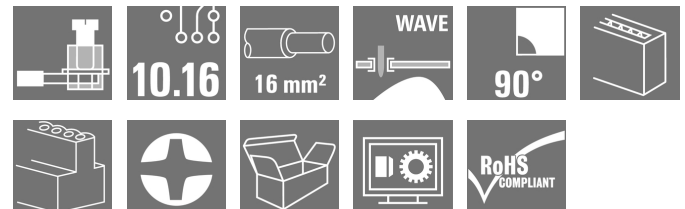
D-32758 Detmold

Germany

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www.weidmueller.com

Product image

Similar to illustration

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

Type	LU 10.16/04/90 3.2SN GY BX
Order No.	1791090000
Version	Printed circuit board terminals, 10.16 mm, No. of poles: 4, 90°, Solder pin length (l): 3.2 mm, tinned, Pebble grey, Screw connection, Clamping range, max. : 16 mm ² , Box
GTIN (EAN)	4032248219933
Qty.	20 pc(s).
Product data	IEC: 1000 V / 76 A / 0.5 - 16 mm ² UL: 300 V / 65 A / AWG 26 - AWG 6
Packaging	Box

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Technical data

Dimensions and weights

Width	40.64 mm	Width (inches)	1.6 inch
Height	31.7 mm	Height (inches)	1.248 inch
Height of lowest version	28.5 mm	Depth	18.3 mm
Depth (inches)	0.72 inch	Net weight	40.4 g

System parameters

Product family	OMNIMATE Power - series LU	Wire connection method	Screw connection
Mounting onto the PCB	THT solder connection	Conductor outlet direction	90°
Pitch in mm (P)	10.16 mm	Pitch in inches (P)	0.4 inch
No. of poles	4	Fitted by customer	Yes
Max. adjacent poles per row	10	Solder pin length (l)	3.2 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	4	Screwdriver blade	1.0 x 5.5
Screwdriver blade standard	DIN 5264	Tightening torque, min.	1.2 Nm
Tightening torque, max.	1.5 Nm	Clamping screw	M 4
Stripping length	12 mm	L1 in mm	30.48 mm
L1 in inches	1.2 inch	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	Volume resistance	0.50 mΩ

Material data

Insulating material	Wemid (PA)	Colour code	Pebble grey
Colour chart (similar)	RAL 7032	Insulating material group	I
CTI	≥ 600	Insulation strength	≥ 10 ⁸ Ω
UL 94 flammability rating	V-0	Contact material	E-Cu
Contact surface	tinned	Layer structure of solder connection	1.5-3 µm Ni / 4-6 µm Sn matt
Storage temperature, min.	-25 °C	Storage temperature, max.	55 °C
Max. relative humidity during storage	80 %	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 mm ²
Clamping range, max.	16 mm ²
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 ²
Solid, max. H05(07) V-U	16 mm ²
Stranded, min. H07V-R	6 mm ²
Stranded, max. H07V-R	16 mm ²
Flexible, min. H05(07) V-K	0.5 mm ²
Flexible, max. H05(07) V-K	16 mm ²
w. plastic collar ferrule, DIN 46228 pt 4, 2.5 mm ² min.	
w. plastic collar ferrule, DIN 46228 pt 4, 10 mm ² max.	
w. wire end ferrule, DIN 46228 pt 1, min. 2.5 mm ²	

Creation date May 13, 2019 1:22:02 PM CEST

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Technical data

 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 mm ²	
	AEH	Stripping length	nominal	12 mm
		Stripping length	nominal	14 mm
	Cross-section for conductor connection	Type	fine-wired	
		nominal	4 mm ²	
	AEH	Stripping length	nominal	12 mm
		Stripping length	nominal	14 mm
	Cross-section for conductor connection	Type	fine-wired	
		nominal	6 mm ²	
	AEH	Stripping length	nominal	12 mm
		Stripping length	nominal	14 mm
	Cross-section for conductor connection	Type	fine-wired	
		nominal	10 mm ²	
	AEH	Stripping length	nominal	15 mm
		Stripping length	nominal	12 mm

 Max. clamping range 16 mm²
Rated data acc. to IEC

tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. no. of poles (Tu=20°C)	76 A
Rated current, max. no. of poles (Tu=20°C)	72 A	Rated current, min. no. of poles (Tu=40°C)	76 A
Rated current, max. no. of poles (Tu=40°C)	62 A	Rated voltage for surge voltage class / pollution degree II/2	1,000 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)		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.		

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Technical data
Rated data acc. to UL 1059

Institute (UR)



Certificate No. (UR)

E60693

Rated voltage (Use group B / UL 1059) 300 V

Rated voltage (Use group D / UL 1059) 600 V

Rated current (Use group C / UL 1059) 65 A

Wire cross-section, AWG, min. AWG 26

Reference to approval values
 Specifications are maximum values, details - see approval certificate.

Rated voltage (Use group C / UL 1059) 150 V

Rated current (Use group B / UL 1059) 65 A

Rated current (Use group D / UL 1059) 5 A

Wire cross-section, AWG, max. AWG 6

Packing

Packaging	Box	VPE length	40 mm
VPE width	110 mm	VPE height	185 mm

Classifications

ETIM 3.0	EC001284	ETIM 4.0	EC002643
ETIM 5.0	EC002643	ETIM 6.0	EC002643
eClass 6.2	27-26-11-01	eClass 7.1	27-44-04-01
eClass 8.1	27-44-04-01	eClass 9.0	27-44-04-01
eClass 9.1	27-44-04-01		

Notes

Notes

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

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Technical data

Downloads

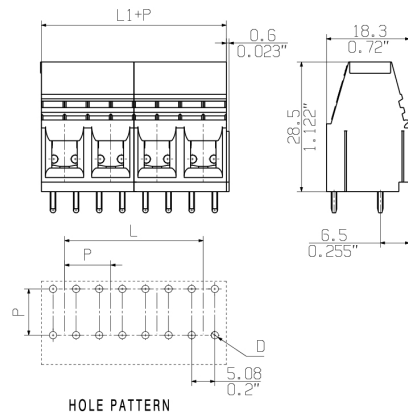
Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
Brochure/Catalogue	FL DRIVES EN MB DEVICE MANUF. EN FL DRIVES DE FL APPL_INVERTER EN FL_BASE_STATION_EN FL ELEVATOR EN FL POWER SUPPLY EN FL 72H SAMPLE SER EN PO OMNIMATE EN
Engineering Data	WSCAD
Engineering Data	STEP
Motion controllers white paper	Download Whitepaper
User Documentation	QR-Code product handling video
White Paper UL 600 V	Download Whitepaper

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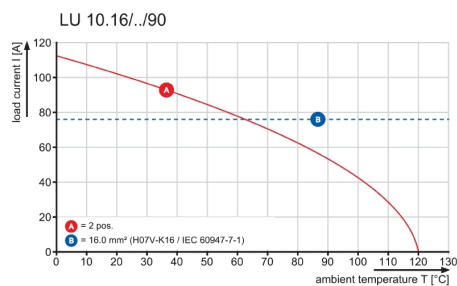
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Drawings

Dimensional drawing



Graph

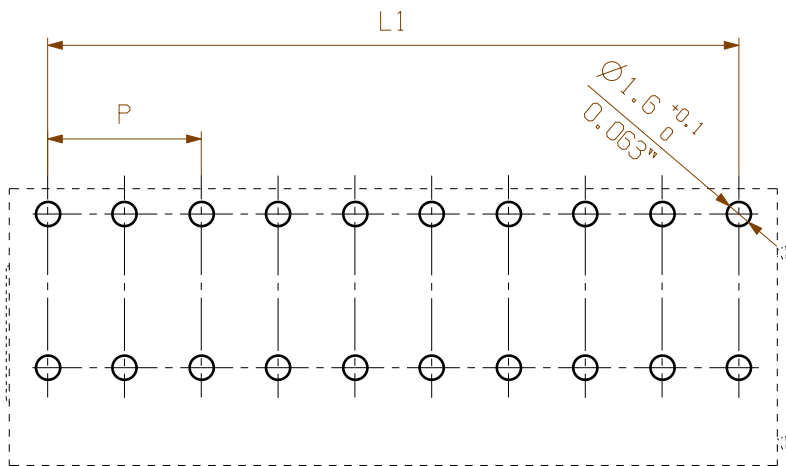
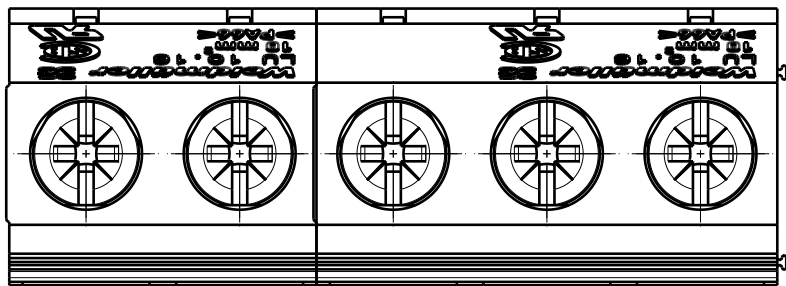


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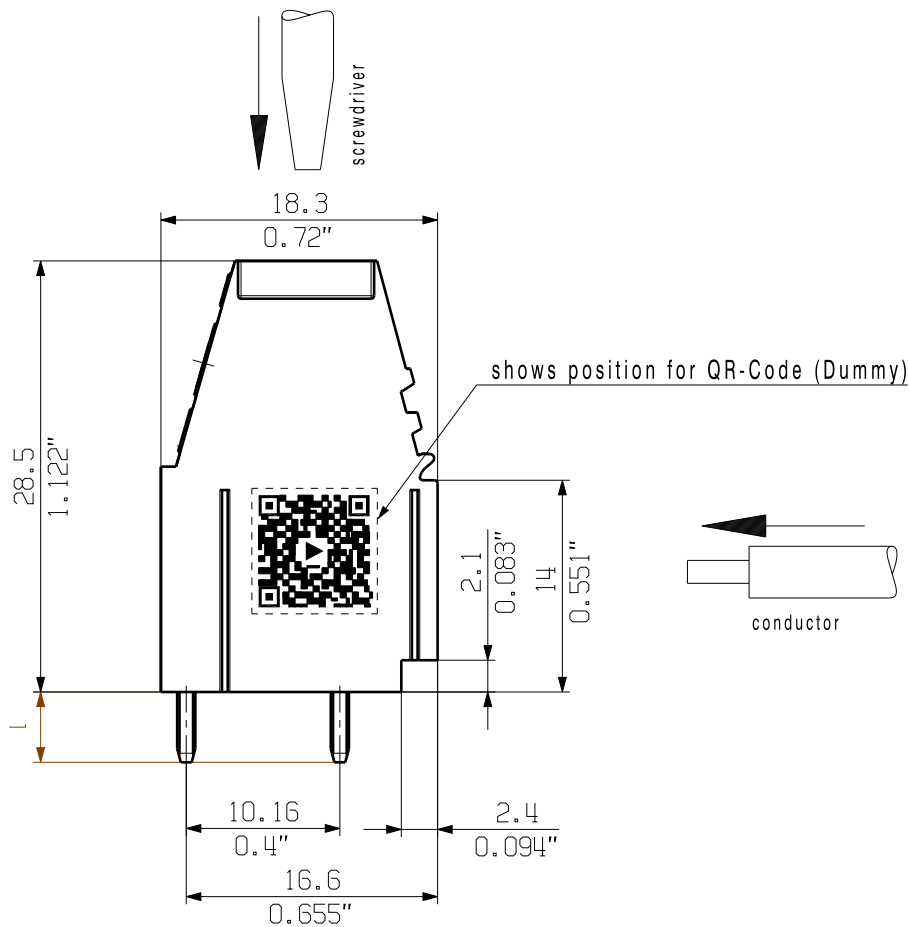
Dimensions without tolerances are no check dimensions

The English version is binding



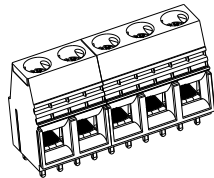
For the mounting of PCBs, it should be noted that the rated data relates only to the PCB components alone. The necessary creepage and clearance paths must be observed in connection with the respective applicant in accordance with IEC 664 / VDE 0110. The current-carrying capacity and pitch tolerance is to be determined according to DIN IEC 326 part 3 very fine.

Weidmüller PCB components are tested to the DIN EN 61984 standard, and are valid for its field of application. Provided that the components are used to the intended purpose, all requirements with respect to the occurring of electrical, mechanical, thermic and corrosive stress will be satisfied.



shown : LU 10.16/05/90

l = solder pin length (4.5/3.2)
 P = pitch (10.16)
 n = no of poles



12	116,84	4,600
11	106,68	4,200
10	96,52	3,800
9	86,36	3,400
8	76,20	3,000
7	66,04	2,600
6	55,88	2,200
5	45,72	1,800
4	35,56	1,400
3	25,40	1,000
2	15,24	0,600
n	L1[mm]	L1 [Inch]

GENERAL TOLERANCE: DIN ISO 2768-mK		Prim PLM Part No.: 017733		Prim ERP Part No.: 1635920000	
102098		04		Weidmüller	
First Issue Date 16.02.2018		Modification		21310	
RoHS COMPLIANT		Date 16.02.2018		Name Amann, Alexand	
Scale: 2:1		Size: A3		Approved 12.11.2018	
Drawings Assembly		Product file: 7232 LU 10.16		10	
				Sheet 01 of 01 sheets	
				LU 10.16/././90 LEITTERPLATTENKLEMME PCB TERMINAL	

Recommended wave soldering profiles

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Single Wave:



Double Wave:



Wave soldering profiles

Wired connection elements should be processed in accordance with the DIN EN 61760-1 standard. We have included two recommendations for practical wave soldering profiles, with which Weidmüller PCB terminals and connectors are qualified.

When choosing a suitable profile for your application, the following factors also need to be considered:

- PCB thickness
- Proportion of Cu in the layers
- Single/double-sided assembly
- Product range
- Heating and cooling rates

The single and double wave profiles each indicate the recommended operating range, including the maximum soldering temperature of 260°C. In practice, the maximum soldering temperature is quite often well below the above maximum profile.

We reserve the right to make technical changes.