LU 10.16/02/90 3.2SN GY BX

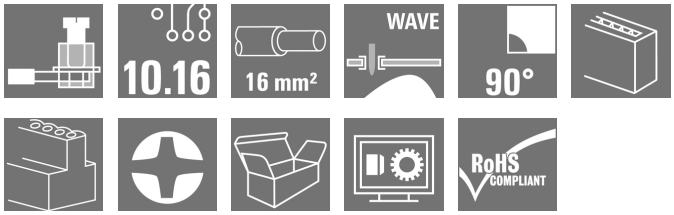
Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany

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

Version	Printed circuit board terminals, 10.16 mm, Number of poles: 2, 90°, Solder pin length (l): 3.2 mm, tinned, Pebble grey, Clamping yoke connection, Clamping range, max. : 16 mm², Box
Order No.	1791080000
Type	LU 10.16/02/90 3.2SN GY BX
GTIN (EAN)	4032248219926
Qty.	20 pc(s).
Product data	IEC: 1000 V / 76 A / 0.5 - 16 mm² UL: 300 V / 65 A / AWG 26 - AWG 6
Packaging	Box

Creation date September 16, 2022 11:49:04 AM CEST

LU 10.16/02/90 3.2SN GY BX

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

www.weidmueller.com

Technical data

Dimensions and weights

Depth	18.3 mm	Depth (inches)	0.72 inch
Height	31.7 mm	Height (inches)	1.248 inch
Height of lowest version	28.5 mm	Width	20.32 mm
Width (inches)	0.8 inch	Net weight	20.5 g

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)	0.4 inch
Number of poles	2	Pin series quantity	1
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.	2.2 Nm
Clamping screw	M 4	Stripping length	12 mm
L1 in mm	10.16 mm	L1 in inches	0.4 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
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	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.	-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
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

LU 10.16/02/90 3.2SN GY BX

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

www.weidmueller.com

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 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
Rated current, max. number 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

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

LU 10.16/02/90 3.2SN GY BX

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

www.weidmueller.com

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 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 mm
VPE width	89 mm	VPE height	39 mm

Classifications

ETIM 6.0	EC002643	ETIM 7.0	EC002643
ETIM 8.0	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

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 average humidity 70%, 36 months

Approvals

Approvals	
ROHS	Conform
UL File Number Search	UL Website
Certificate No. (UR)	E60693

LU 10.16/02/90 3.2SN GY BX

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

www.weidmueller.com

Technical data

Downloads

Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
Engineering Data	CAD data – STEP
Engineering Data	WSCAD
Product Change Notification	20220201 Visual change OMNIMATE® Power PCB terminal blocks and connectors 20220201 Visuelle Änderung OMNIMATE® Power Leiterplattenklemmen und -steckverbinder
User Documentation	QR-Code product handling video
Catalogues	Catalogues in PDF-format
Brochures	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

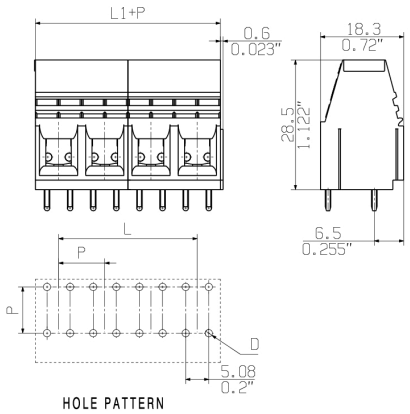
LU 10.16/02/90 3.2SN GY BX

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

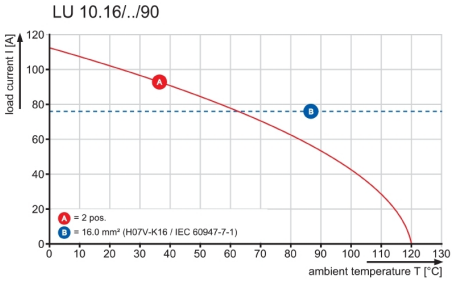
www.weidmueller.com

Drawings

Dimensional drawing



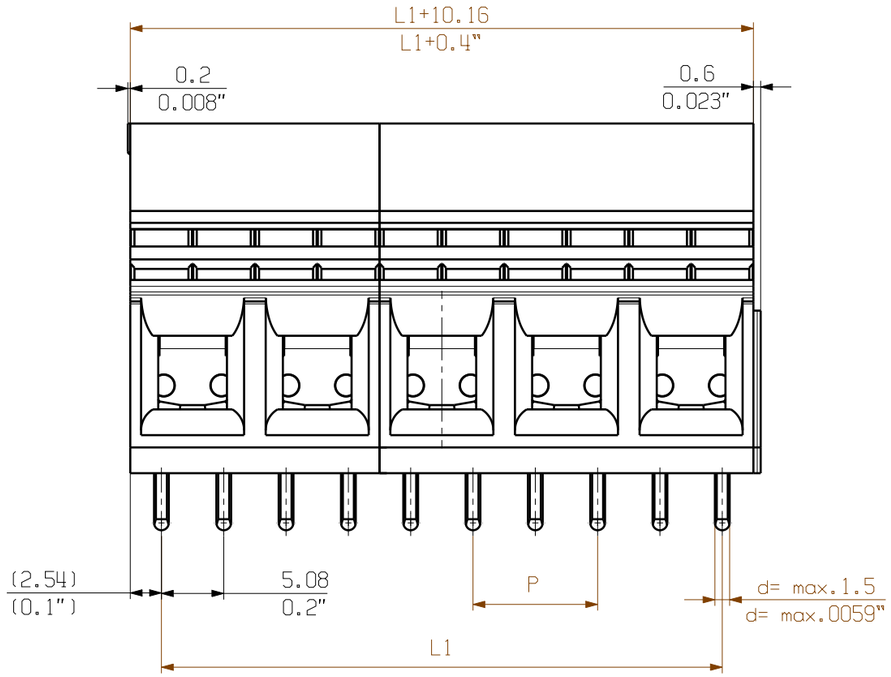
Graph

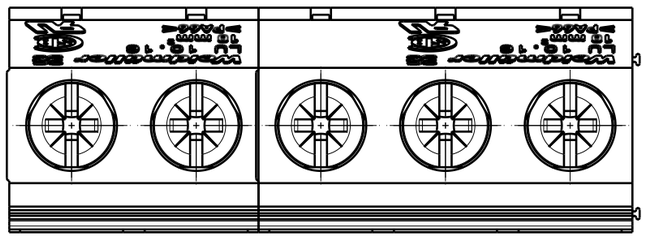


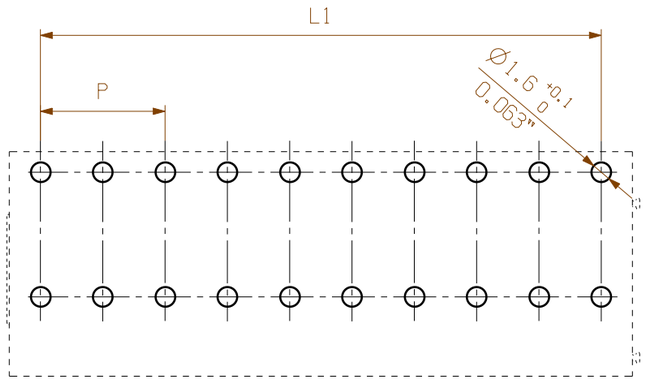
The reproduction, distribution and utilization of this document as well as the communication of its contents to others without explicit authorization is prohibited.
Offenders will be held liable for the payment of damages. Weidmueller exclusively reserves the right to file for patents, utility models or designs.
© Weidmueller Interface GmbH & Co. KG

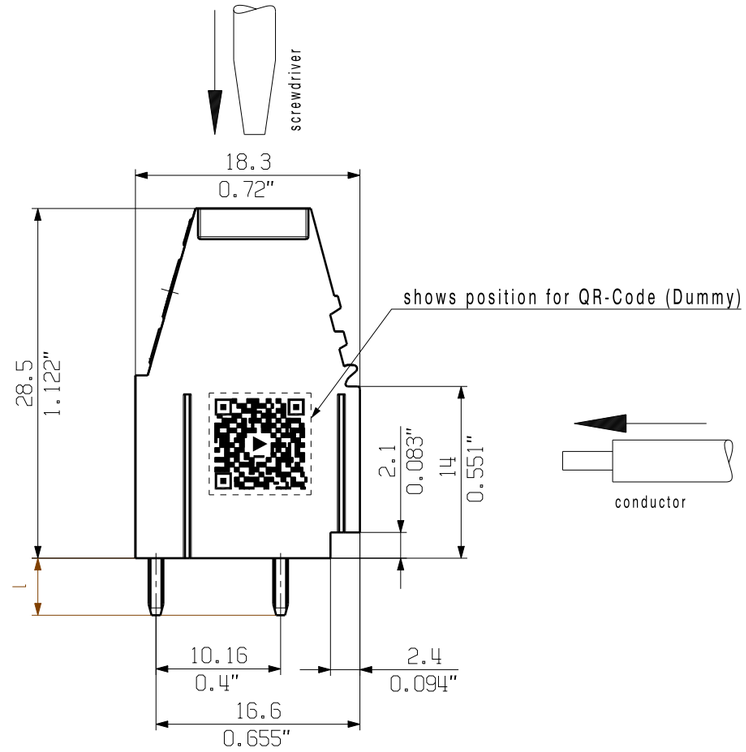
Dimensions without tolerances are no check dimensions

The English version is binding





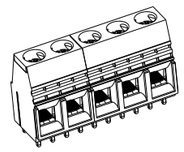




shown : LU 10.16/05/90

l = solder pin length (4.5/3.2)

P = pitch (10.16)
n = no of poles



n	L1[mm]	L1 [Inch]
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

For the mounting of PCBs, it should be noted that the rated data relates only to the PCB components alone.
The neccessary creepage and clearance paths must be observed in connection with the respective applicant in accordance to 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 occuring of electrical, mechanical, thermic and corrosive stress will be satisfied.

GENERAL TOLERANCE:
DIN ISO 2768-mK

RoHS COMPLIANT

First Issue Date
16.02.2018

102098 . 04

Modification

Prim PLM Part No.: 017733

Prim ERP Part No.: 1635920000

Weidmüller

21310 Drawing no.

10 Issue no.

Sheet 01 of 01 sheets

	Date	Name
Drawn	16.02.2018	Administrator
Responsible		Amann, Alexand
Approved	12.11.2018	Lang, Thomas

Scale: 2:1 Size: A3

Drawings Assembly

LU 10.16/../90

LEITTERPLATTENKLEMME
PCB TERMINAL

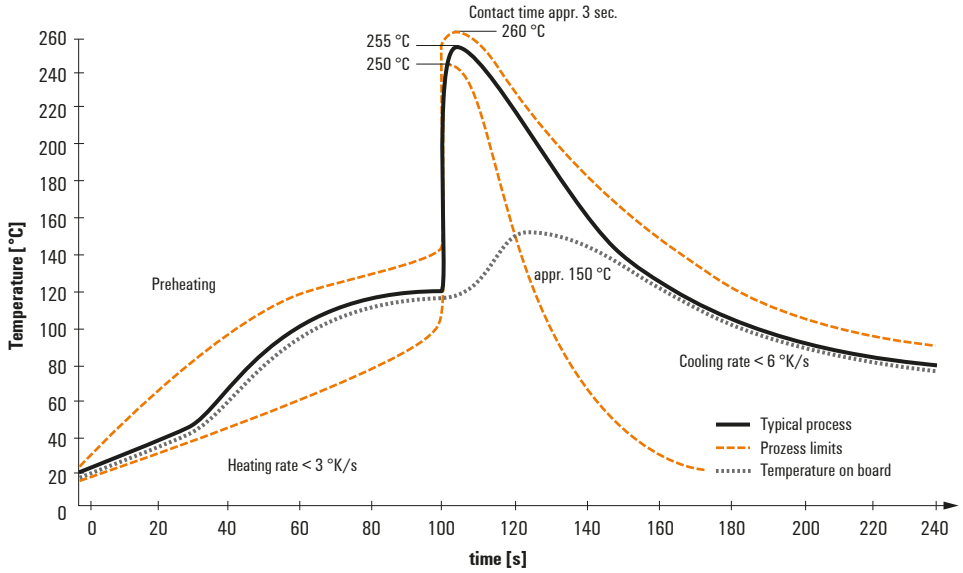
Product file: 7232 LU 10.16

Wave Solder Profile

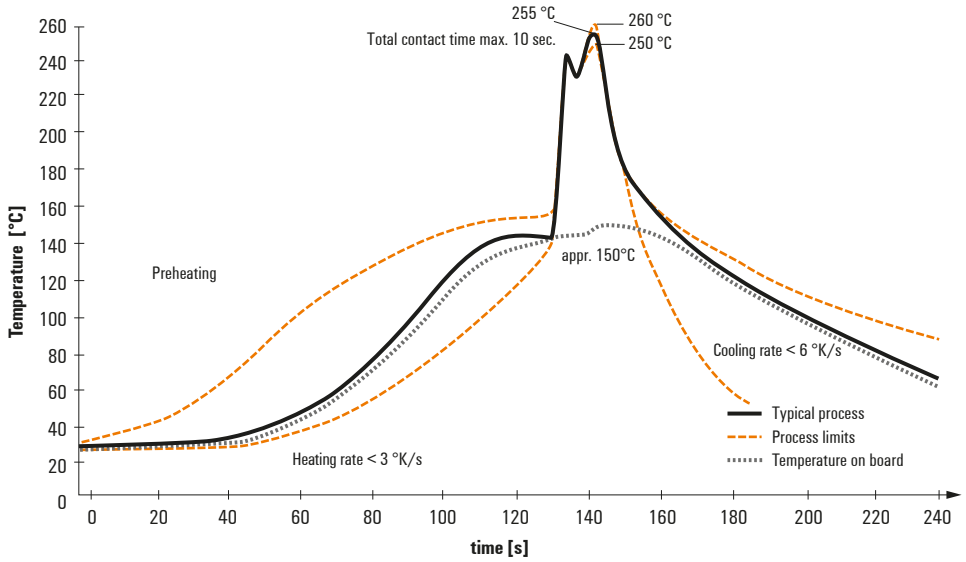
Recommended wave solderding profiles

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 16
D-32758 Detmold
Germany
Fon: +49 5231 14-0
Fax: +49 5231 14-292083
www.weidmueller.com

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.