

LP2N 5.00/30/90 3.2SN OR BX

Weidmüller Interface GmbH & Co. KG

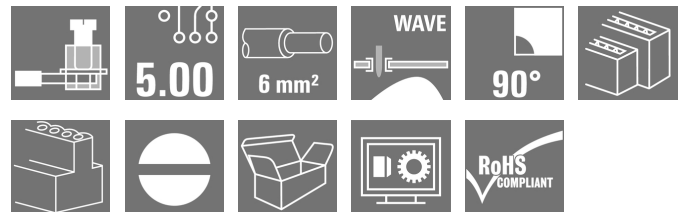
Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Product image



Similar to illustration

Single- and multi-row PCB terminal with proven clamping yoke connection at 5.08 mm pitch, conductor outlet direction 90°. Suitable for conductor cross-sections up to 6.0 mm².

General ordering data

Version	Printed circuit board terminals, 5.00 mm, Number of poles: 30, 90°, Solder pin length (l): 3.2 mm, tinned, orange, Clamping yoke connection, Clamping range, max.: 6 mm², Box
Order No.	1596670000
Type	LP2N 5.00/30/90 3.2SN OR BX
GTIN (EAN)	4008190116415
Qty.	10 pc(s).
Product data	IEC: 500 V / 32 A / 0.5 - 6 mm² UL: 300 V / 20 A / AWG 26 - AWG 12
Packaging	Box

Delivery status **Discontinued** Creation date March 24, 2021 8:25:46 AM CET

Available until 2019-12-31

Alternative product [1977380000](#)

Catalogue status 12.03.2021 / We reserve the right to make technical changes.

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Technical data

Dimensions and weights

Depth	21.8 mm	Depth (inches)	0.858 inch
Height	34.2 mm	Height (inches)	1.346 inch
Height of lowest version	31 mm	Net weight	57.2 g
Width	78.1 mm	Width (inches)	3.075 inch

System parameters

Product family	OMNIMATE Signal - series LP	Wire connection method	Clamping yoke connection
Mounting onto the PCB	THT solder connection	Conductor outlet direction	90°
Pitch in mm (P)	5 mm	Pitch in inches (P)	0.197 inch
Number of poles	30	Pin series quantity	2
Fitted by customer	Yes	Max. adjacent poles per row	48
Solder pin length (l)	3.2 mm	Solder pin dimensions	0.75 x 0.9 mm
Solder eyelet hole diameter (D)	1.3 mm	Solder eyelet hole diameter tolerance (D)+	0,1 mm
Number of solder pins per pole	1	Screwdriver blade	0.6 x 3.5
Screwdriver blade standard	DIN 5264	Tightening torque, min.	0.5 Nm
Tightening torque, max.	0.6 Nm	Clamping screw	M 3
Stripping length	6 mm	L1 in mm	70 mm
L1 in inches	2.756 inch	Touch-safe protection acc. to DIN VDE 0470	IP 20
Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch	Volume resistance	1.20 mΩ

Material data

Insulating material	PA	Colour	orange
Colour chart (similar)	RAL 2000	Insulating material group	I
Comparative Tracking Index (CTI)	≥ 600	Insulation strength	≥ 10 ⁸ Ω
UL 94 flammability rating	V-2	Contact material	Copper alloy
Contact surface	tinned	Coating	1-3 µm Ni, 4-6 µm SN
Tinning type	matt	Layer structure of solder connection	4...6 µm Ni / 4...6 µm Sn
Storage temperature, min.	-40 °C	Storage temperature, max.	70 °C
Operating temperature, min.	-50 °C	Temperature range, installation, min.	-25 °C

Conductors suitable for connection

Clamping range, min.	0.13 mm ²	Clamping range, max.	6 mm ²
Wire connection cross section AWG, min.	AWG 26	Wire connection cross section AWG, max.	AWG 12
Solid, min. H05(07) V-U	0.5 mm ²	Solid, max. H05(07) V-U	6 mm ²
Flexible, min. H05(07) V-K	0.5 mm ²	Flexible, max. H05(07) V-K	4 mm ²
w. plastic collar ferrule, DIN 46228 pt 4, min.	0.5 mm ²	w. plastic collar ferrule, DIN 46228 pt 4, max.	2.5 mm ²
w. wire end ferrule, DIN 46228 pt 1, min.	0.5 mm ²	w. wire end ferrule, DIN 46228 pt 1, max.	2.5 mm ²
Plug gauge in accordance with EN 60999 a x b; ø		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)
	2.8 mm x 2.4 mm; 3.0 mm		

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Technical data
Rated data acc. to IEC

tested acc. to standard

IEC 60664-1, IEC 61984

 Rated current, max. number of poles
(Tu=20°C)

28 A

 Rated current, max. number of poles
(Tu=40°C)

24 A

 Rated voltage for surge voltage class /
pollution degree III/2

250 V

 Rated impulse voltage for surge voltage
class/ pollution degree II/2

4 kV

 Rated impulse voltage for surge voltage
class/ contamination degree III/3

4 kV

 Rated current, min. number of poles
(Tu=20°C)

32 A

 Rated current, min. number of poles
(Tu=40°C)

30 A

 Rated voltage for surge voltage class /
pollution degree II/2

500 V

 Rated voltage for surge voltage class /
pollution degree III/3

250 V

 Rated impulse voltage for surge voltage
class/ pollution degree III/2

4 kV

Short-time withstand current resistance

3 x 1s with 120 A

Rated data acc. to CSA

Institute (CSA)



Certificate No. (CSA)

200039-1202191

Rated voltage (Use group B / CSA)

300 V

Rated current (Use group B / CSA)

20 A

Wire cross-section, AWG, min.

AWG 26

Reference to approval values

 Specifications are
maximum values, details -
see approval certificate.

Rated voltage (Use group D / CSA)

300 V

Rated current (Use group D / CSA)

10 A

Wire cross-section, AWG, max.

AWG 12

Rated data acc. to UL 1059

Institute (UR)



Certificate No. (UR)

E60693

Rated voltage (Use group B / UL 1059)

300 V

Rated current (Use group B / UL 1059)

20 A

Wire cross-section, AWG, min.

AWG 26

Reference to approval values

 Specifications are
maximum values, details -
see approval certificate.

Rated voltage (Use group D / UL 1059)

300 V

Rated current (Use group D / UL 1059)

10 A

Wire cross-section, AWG, max.

AWG 12

Packing

Packaging

Box

VPE length

45 mm

VPE width

120 mm

VPE height

180 mm

Classifications

ETIM 6.0

EC002643

ETIM 7.0

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

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Technical data

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	• Additional colours on request • Rated current related to rated cross-section & min. No. of poles. • Wire end ferrule without plastic collar to DIN 46228/1 • Wire end ferrule with plastic collar to DIN 46228/4 • P on drawing = pitch • 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. • 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	E60693

Downloads

Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
Engineering Data	STEP
Engineering Data	EPLAN, WSCAD

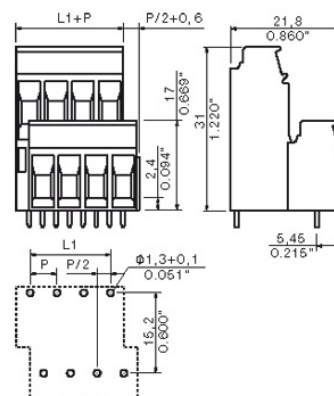
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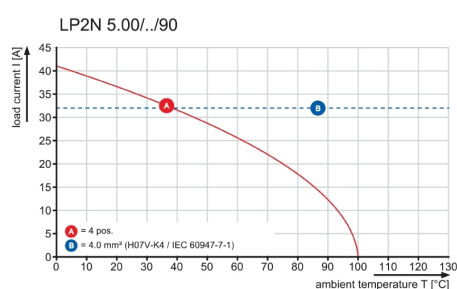
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Drawings

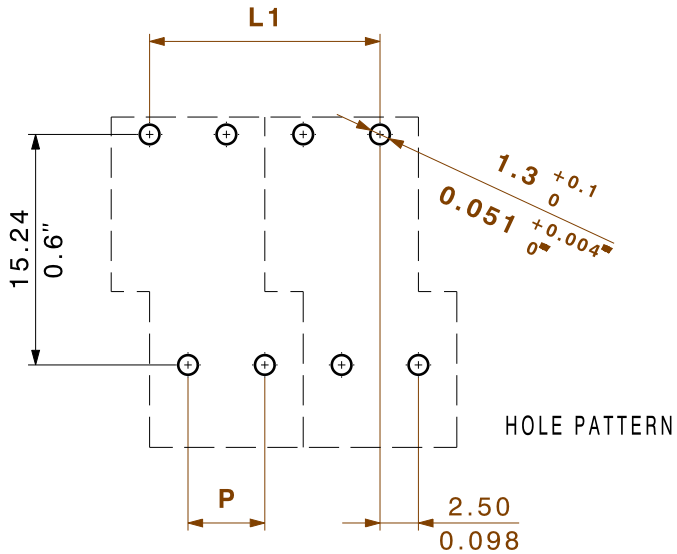
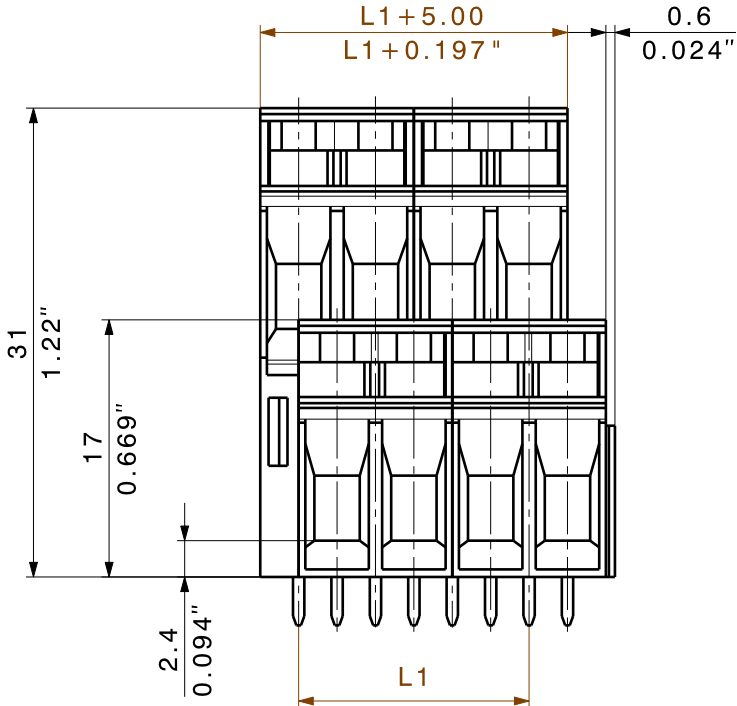
Dimensional drawing



Graph



WEITERGABE SOWIE VIELFÄLTIGUNG DIESES DOKUMENTS, VERWERTUNG UND MITTEILUNG SEINES INHALTS SIND VERBOTEN. SOWEIT NICHT AUSDRUECKLICH GESTATET.



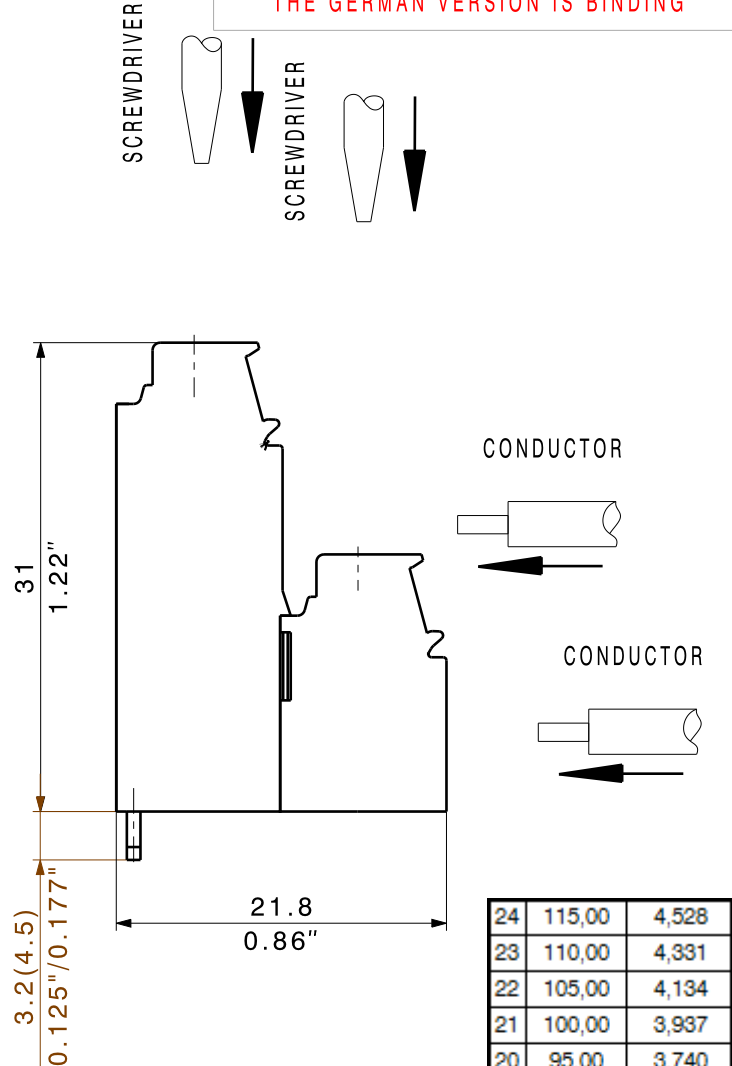
P=RASTER/PITCH
SHOWN: LP2N5.00/8

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.



24	115,00	4,528
23	110,00	4,331
22	105,00	4,134
21	100,00	3,937
20	95,00	3,740
19	90,00	3,543
18	85,00	3,346
17	80,00	3,150
16	75,00	2,953
15	70,00	2,756
14	65,00	2,559
13	60,00	2,362
12	55,00	2,165
11	50,00	1,969
10	45,00	1,772
9	40,00	1,575
8	35,00	1,378
7	30,00	1,181
6	25,00	0,984
5	20,00	0,787
4	15,00	0,591
3	10,00	0,394
2	5,00	0,197
n	L1 [mm]	L1 [Inch]

BoHS DIN ISO 2768-m

 DIN ISO 2768-m	69857/0 15.05.13 HELIS_MA		01	Weidmüller 		CAT.NO.: 3 22734 06	
	MODIFICATION					DRAWING NO.	ISSUE NO.
	METRIC/INCH DIMENSIONS 		DATE	NAME	SHEET 01	OF 01	SHEETS
SCALE: 2:1	DRAWN	15.07.2010	KRUG_M	LP2N 5.00/././90... LEITERPLATTENKLEMME PCB-TERMINAL			7361
SUPERSEDES: -	RESPONSIBLE		KRUG_M				
SUPERSEDED BY: .	CHECKED	16.05.2013	HECKERT_M				
	APPROVED		HECKERT_M	PRODUCT FILE: LP2N(2H, 3R)			

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.

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