

LM2N 5.08/04/90 3.5SN BK BX

Weidmüller Interfaces GmbH & Co. KG

Postfach 3030

32760 Detmold

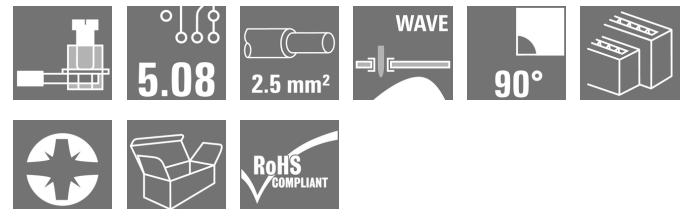
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Product image



Similar to illustration

Single- and multi-row PCB terminal with proven clamping yoke connection at 5.08 mm pitch. Suitable for conductor cross-sections up to 2.5 mm².

General ordering data

Version	Printed circuit board terminals, 5.08 mm, Number of poles: 4, 90°, Solder pin length (l): 3.5 mm, tinned, black, Clamping yoke connection, Clamping range, max.: 2.5 mm ² , Box
Order No.	1769080000
Type	LM2N 5.08/04/90 3.5SN BK BX
GTIN (EAN)	4032248115914
Qty.	92 pc(s).
Product data	IEC: 630 V / 17.5 A / 0.2 - 2.5 mm ² UL: 300 V / 15 A / AWG 24 - AWG 14
Packaging	Box

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Technical data

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Dimensions and weights

Depth	21.6 mm	Depth (inches)	0.85 inch
Height	28.7 mm	Height (inches)	1.13 inch
Height of lowest version	25.2 mm	Width	13.7 mm
Width (inches)	0.539 inch	Net weight	3.451 g

System parameters

Product family	OMNIMATE Signal - series LM	Wire connection method	Clamping yoke connection
Mounting onto the PCB	THT solder connection	Conductor outlet direction	90°
Pitch in mm (P)	5.08 mm	Pitch in inches (P)	0.2 inch
Number of poles	4	Pin series quantity	2
Fitted by customer	Yes	Max. adjacent poles per row	48
Solder pin length (l)	3.5 mm	Solder pin dimensions	0.95 x 0.8 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.	0.4 Nm
Tightening torque, max.	0.5 Nm	Clamping screw	M 2.5
Stripping length	6 mm	L1 in mm	5.08 mm
L1 in inches	0.2 inch	Touch-safe protection acc. to DIN VDE 0470	IP 20
Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch	Protection degree	IP20
Volume resistance	1.20 mΩ		

Material data

Insulating material	Wemid (PA)	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	I
Comparative Tracking Index (CTI)	≥ 600	UL 94 flammability rating	V-0
Contact material	Copper alloy	Contact surface	tinned
Coating	1-3 μm Ni, 4-6 μm SN	Tinning type	matt
Layer structure of solder connection	1...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.	0.2 mm ²
Clamping range, max.	2.5 mm ²
Wire connection cross section AWG, min.	AWG 24
Wire connection cross section AWG, max.	AWG 14
Solid, min. H05(07) V-U	0.2 mm ²
Solid, max. H05(07) V-U	2.5 mm ²
Flexible, min. H05(07) V-K	0.2 mm ²
Flexible, max. H05(07) V-K	2.5 mm ²
w. plastic collar ferrule, DIN 46228 pt 4, min.	0.25 mm ²
w. plastic collar ferrule, DIN 46228 pt 4, max.	1.5 mm ²
w. wire end ferrule, DIN 46228 pt 1, min.	0.25 mm ²

Creation date October 3, 2022 6:43:27 PM CEST

Catalogue status 23.09.2022 / We reserve the right to make technical changes.

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Technical data

w. wire end ferrule, DIN 46228 pt 1, max. 1.5 mm²

Plug gauge in accordance with EN 60999 a x b; ø 2.4 mm x 1.5 mm; 1.9mm

Clampable conductor

Cross-section for conductor connection	Type	nominal	fine-wired
wire end ferrule	nominal	0.5 mm ²	
	Stripping length	nominal	8 mm
	Recommended wire-end ferrule	H0.5/12 OR	
	Stripping length	nominal	6 mm
wire end ferrule	Recommended wire-end ferrule	H0.5/6	
	nominal	0.75 mm ²	
	Stripping length	nominal	8 mm
	Recommended wire-end ferrule	H0.75/12 W	
wire end ferrule	Stripping length	nominal	6 mm
	Recommended wire-end ferrule	H0.75/6	
	nominal	1 mm ²	
	Stripping length	nominal	8 mm
wire end ferrule	Recommended wire-end ferrule	H1.0/12 GE	
	Stripping length	nominal	6 mm
	Recommended wire-end ferrule	H1.0/6	
	nominal	0.25 mm ²	
wire end ferrule	Stripping length	nominal	8 mm
	Recommended wire-end ferrule	H0.25/10 HBL	
	Stripping length	nominal	5 mm
	Recommended wire-end ferrule	H0.25/5	
nominal	0.34 mm ²		
wire end ferrule	Stripping length	nominal	8 mm
	Recommended wire-end ferrule	H0.34/10 TK	

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, max. number of poles (Tu=20°C)

16 A

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

14.2 A

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

320 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)

17.5 A

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

17.5 A

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

630 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

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200039-1815154

Technical data

Rated data acc. to CSA

Institute (CSA)



Certificate No. (CSA)

www.weidmueller.com

Rated voltage (Use group B / CSA) 300 V

Rated voltage (Use group D / CSA) 300 V

Rated current (Use group B / CSA) 18 A

Rated current (Use group D / CSA) 10 A

Wire cross-section, AWG, min. AWG 24

Wire cross-section, AWG, max. AWG 14

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

Rated data acc. to UL 1059

Institute (cURus)



Certificate No. (cURus)

E60693

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

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

Rated current (Use group B / UL 1059) 15 A

Rated current (Use group D / UL 1059) 10 A

Wire cross-section, AWG, min. AWG 24

Wire cross-section, AWG, max. AWG 14

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

Packing

Packaging	Box	VPE length	350 mm
VPE width	136 mm	VPE height	41 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

- 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
- The data given under CSA relates to a cUL approval - E60693
- 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

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Data sheet**LM2N 5.08/04/90 3.5SN BK BX****Weidmüller Interfaces GmbH & Co. KG**

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info@weidmueller.comwww.weidmueller.com**Technical data****Approvals**

Approvals



ROHS Conform

UL File Number Search UL Website

Certificate No. (cURus) E60693

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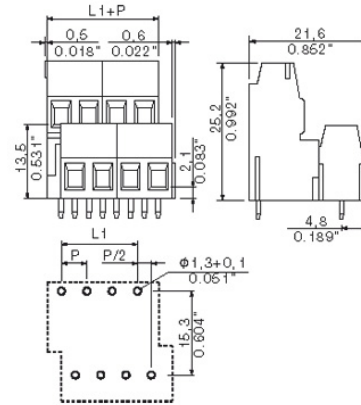
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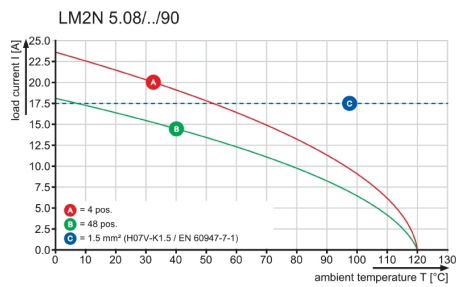
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Drawings

Dimensional drawing info@weidmueller.com



Graph



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.