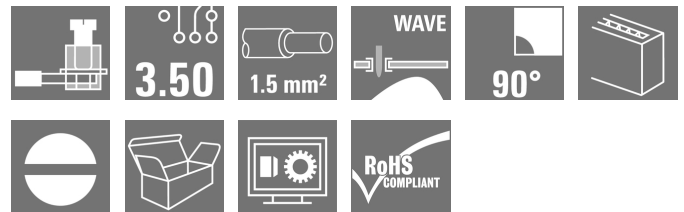


LM1N 3.50/02/90 3.2SN OR BX**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com**Product image**

Similar to illustration

Small, compact PCB terminal with proven clamping yoke connection and 3.5 mm pitch. Conductor outlet direction 90° and 135°. Suitable for conductor cross-sections up to 1.5 mm².

General ordering data

Version	Printed circuit board terminals, 3.50 mm, Number of poles: 2, 90°, Solder pin length (l): 3.2 mm, tinned, orange, Clamping yoke connection, Clamping range, max. : 2.08 mm², Box
Order No.	1716710000
Type	LM1N 3.50/02/90 3.2SN OR BX
GTIN (EAN)	4008190396282
Qty.	100 pc(s).
Product data	IEC: 320 V / 13 A / 0.5 - 1.5 mm² UL: 300 V / 10 A / AWG 28 - AWG 14
Packaging	Box

Creation date September 16, 2022 9:33:22 AM CEST

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Technical data

Dimensions and weights

Depth	9.15 mm	Depth (inches)	0.36 inch
Height	27.3 mm	Height (inches)	1.075 inch
Height of lowest version	24.1 mm	Width	7.6 mm
Width (inches)	0.299 inch	Net weight	1.71 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)	3.5 mm	Pitch in inches (P)	0.138 inch
Number of poles	2	Pin series quantity	1
Fitted by customer	Yes	Max. adjacent poles per row	24
Solder pin length (l)	3.2 mm	Solder pin dimensions	1.0 x 0.6 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	0.4 x 2.5
Screwdriver blade standard	DIN 5264	Tightening torque, min.	0.2 Nm
Tightening torque, max.	0.25 Nm	Clamping screw	M 2
Stripping length	5 mm	L1 in mm	3.5 mm
L1 in inches	0.138 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	3.60 mΩ		

Material data

Insulating material	PA	Colour	orange
Colour chart (similar)	RAL 2000	Insulating material group	I
Comparative Tracking Index (CTI)	≥ 600	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	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.	100 °C	Temperature range, installation, min.	-25 °C
Temperature range, installation, max.	100 °C		

Conductors suitable for connection

Clamping range, min.	0.08 mm ²
Clamping range, max.	2.08 mm ²
Wire connection cross section AWG, min.	AWG 28
Wire connection cross section AWG, max.	AWG 14
Solid, min. H05(07) V-U	0.5 mm ²
Solid, max. H05(07) V-U	1.5 mm ²
Flexible, min. H05(07) V-K	0.5 mm ²
Flexible, max. H05(07) V-K	1.5 mm ²
w. plastic collar ferrule, DIN 46228 pt 4, 0.5 mm ² min.	
w. plastic collar ferrule, DIN 46228 pt 4, 0.75 mm ² max.	
Plug gauge in accordance with EN 60999 a x b; ø	2.4 mm x 1.5 mm

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Technical data

Clampable conductor	Cross-section for conductor connection	Type	fine-wired	
		nominal	0.75 mm²	
	wire end ferrule	Stripping length	nominal	8 mm
		Recommended wire-end ferrule	H0.75/12 W	
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)	12 A	Rated current, min. number of poles (Tu=20°C)	13 A	
Rated current, max. number of poles (Tu=40°C)	10 A	Rated current, min. number of poles (Tu=40°C)	11 A	
Rated voltage for surge voltage class / pollution degree III/2	160 V	Rated voltage for surge voltage class / pollution degree II/2	320 V	
Rated impulse voltage for surge voltage class/ pollution degree II/2	2.5 kV	Rated voltage for surge voltage class / pollution degree III/3	160 V	
Rated impulse voltage for surge voltage class/ contamination degree III/3	2.5 kV	Rated impulse voltage for surge voltage class/ pollution degree III/2	2.5 kV	
		Short-time withstand current resistance	3 x 1s with 72 A	

Rated data acc. to CSA

Institute (CSA)				Certificate No. (CSA)			
				154685-1202192			
Rated voltage (Use group B / CSA)		300 V		Rated voltage (Use group D / CSA)		300 V	
Rated current (Use group B / CSA)		10 A		Rated current (Use group D / CSA)		10 A	
Wire cross-section, AWG, min.		AWG 28		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 (UR)		Certificate No. (UR)	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)	10 A	Rated current (Use group D / UL 1059)	10 A
Wire cross-section, AWG, min.	AWG 28	Wire cross-section, AWG, max.	AWG 14
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Packing

Packaging	Box	VPE length	109 mm
VPE width	70 mm	VPE height	59 mm

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Technical data

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.
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Notes	• Additional variants on request • Rated current related to rated cross-section & min. No. of poles. • Max. outer diameter of the conductor: 2.9 mm • 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. • It is necessary to hold the insulating body of the one or two pole terminal when tightening the screw • Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months
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Approvals

Approvals



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

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Technical data

Downloads

Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
Engineering Data	CAD data – STEP
Engineering Data	EPLAN, WSCAD
Catalogues	Catalogues in PDF-format
Brochures	FL DRIVES EN FL ANALO.SIGN.CONV. EN MB DEVICE MANUF. EN FL DRIVES DE FL BUILDING SAFETY EN FL APPL LED LIGHTING EN FL INDUSTR.CONTROLS EN FL MACHINE SAFETY EN FL HEATING ELECTR EN FL APPL INVERTER EN FL_BASE_STATION_EN FL ELEVATOR EN FL POWER SUPPLY EN FL 72H SAMPLE SER EN PO OMNIMATE EN PO OMNIMATE EN

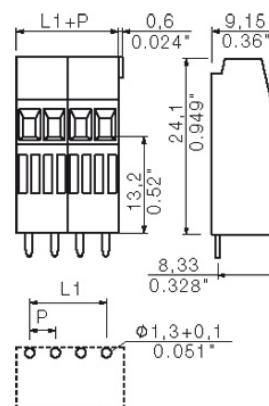
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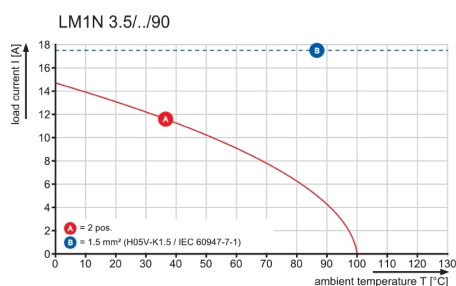
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Drawings

Dimensional drawing



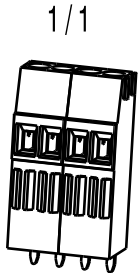
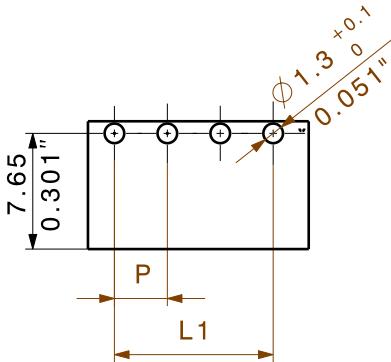
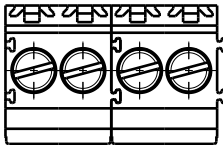
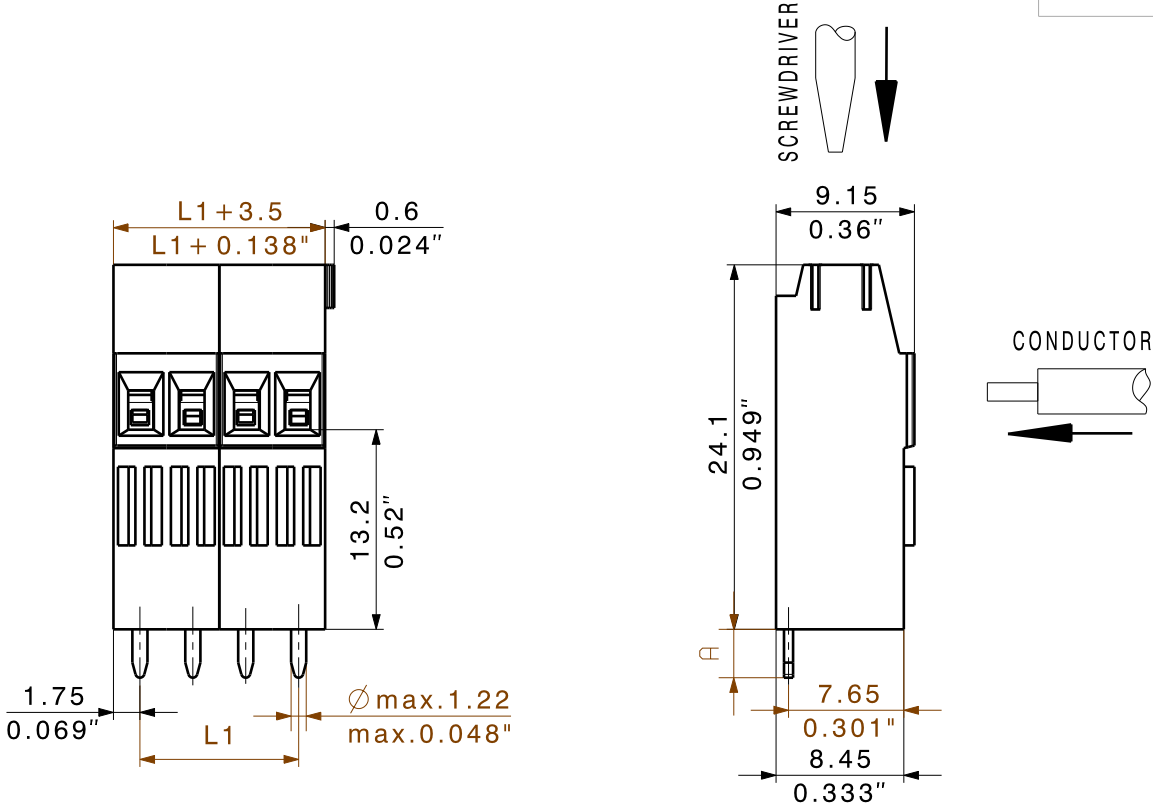
Graph



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DIE DEUTSCHE VERSION IST VERBINDLICH
THE GERMAN VERSION IS BINDING



P= RASTER/ PITCH
SHOWN: LM1N 3.50/04/90

4.5	+0.1	24	80,50	3,169
	-0.3	23	77,00	3,031
3.2	+0.1	22	73,50	2,894
	-0.3	21	70,00	2,756
STIFT- LAENGE / PIN LENGTH A	TOLERANZ/ TOLERANCES	20	66,50	2,618
		19	63,00	2,480
n	L1 [mm]	18	59,50	2,343
		17	56,00	2,205
L1 [Inch]		16	52,50	2,067
		15	49,00	1,929
		14	45,50	1,791
		13	42,00	1,654
		12	38,50	1,516
		11	35,00	1,378
		10	31,50	1,240
		9	28,00	1,102
		8	24,50	0,965
		7	21,00	0,827
		6	17,50	0,689
		5	14,00	0,551
		4	10,50	0,413
		3	7,00	0,276
		2	3,50	0,138
		n	L1 [mm]	L1 [Inch]

METRIC TOLERANCES
X. = ±0.3
X.X = ±0.1
X.XX = ±0.05

65995/0
21.09.12 HELIS_MA00

MODIFICATION

SCALE: 2/1
SUPERSEDES: .

DATE
09.10.2008

NAME
HELIS_MA

CHECKED
24.09.2012

APPROVED

NAME
KRUG_M
HERTEL_S
HECKERT_M

PRODUCT FILE: LM1N 3.5

CAT.NO.: .

Weidmüller

LM1N 3.50/././90
LEITERPLATTENANSCHLUSSKLEMME
PCB TERMINAL

DRAWING NO.
SHEET 02 OF 03 SHEETS

C 25525 07
ISSUE NO.

Recommended wave soldering profiles

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Fax: +49 5231 14-292083
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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.

Mouser Electronics

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