

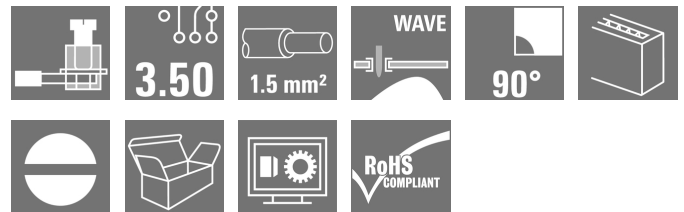
LM1N 3.50/02/90 3.2SN OR BX**Weidmüller Interface GmbH & Co. KG**

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 March 24, 2021 10:17:44 PM CET

LM1N 3.50/02/90 3.2SN OR BX

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

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	Net weight	1.71 g
Width	7.6 mm	Width (inches)	0.299 inch

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	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

Creation date March 24, 2021 10:17:44 PM CET

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

LM1N 3.50/02/90 3.2SN OR BX

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

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	58 mm
VPE width	72 mm	VPE height	113 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

Creation date March 24, 2021 10:17:44 PM CET

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

LM1N 3.50/02/90 3.2SN OR BX

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

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. • 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

Approvals

Approvals



ROHS	Conform
UL File Number Search	E60693

Downloads

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

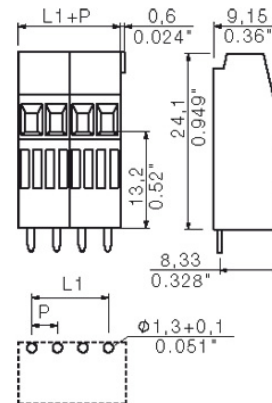
LM1N 3.50/02/90 3.2SN OR BX

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

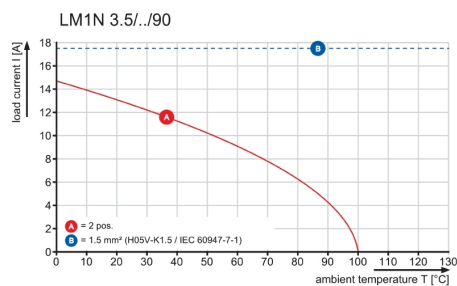
www.weidmueller.com

Drawings

Dimensional drawing



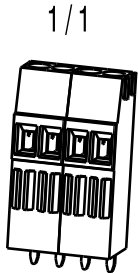
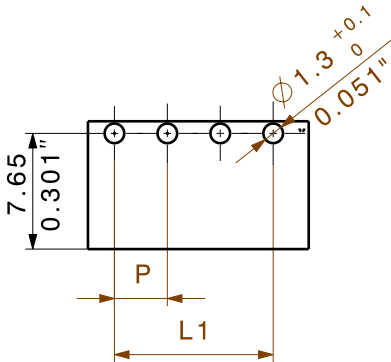
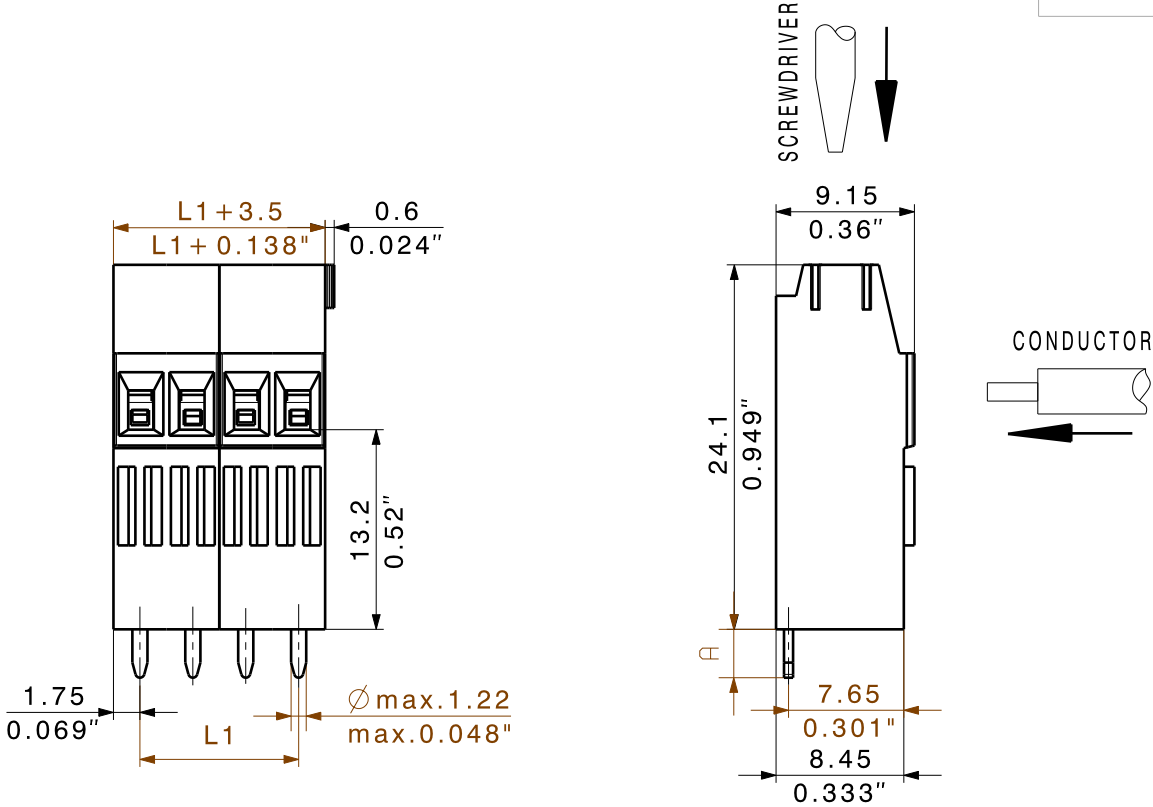
Graph



WEITERGABE SOWIE Vervielfaeltigung dieses Dokuments, Verwertung und Mitteilung seines Inhalts sind verboten, soweit nicht ausdruecklich gestattet.
Zuwendungen verpflichten zu Schadenersatz. Alle Rechte fuer den Fall der Patent-, Gebrauchsmuster- oder Geschmacksustereintragung vorbehalten.
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

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
	TOLERANCES	19	63,00	2,480
n	L1 [mm]	18	59,50	2,343
	L1 [Inch]	17	56,00	2,205
4	+0.1	16	52,50	2,067
	-0.3	15	49,00	1,929
3	+0.1	14	45,50	1,791
	-0.3	13	42,00	1,654
2	+0.1	12	38,50	1,516
	-0.3	11	35,00	1,378
n	L1 [mm]	10	31,50	1,240
	L1 [Inch]	9	28,00	1,102

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

65995/0
21.09.12 HELIS_MA

00

MODIFICATION

SCALE: 2/1

SUPERSEDES: .

DATE

NAME

DRAWN

RESPONSIBLE

CHECKED

APPROVED

09.10.2008

HELIS_MA

24.09.2012

HERTEL_S

HECKERT_M

CAT.NO.: .

C 25525

07

DRAWING NO.

SHEET 02

OF 03

ISSUE NO.

SHEETS

LM1N 3.50/././90

LEITERPLATTENANSCHLUSSKLEMME

PCB TERMINAL

PRODUCT FILE: LM1N 3.5

1111

Recommended wave soldering 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.

