

## LL 9.52/03/90 5.0SN OR BX

**Weidmüller Interface GmbH & Co. KG**

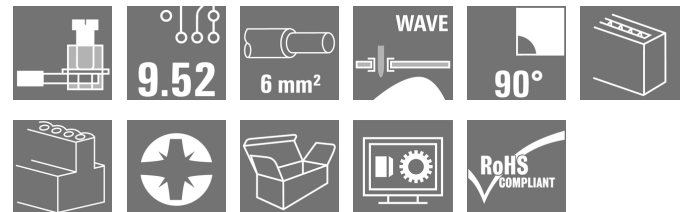
Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

### Product image



This PCB terminal provides connections for 1000 V, 6 mm<sup>2</sup> conductor cross-section and 32 A with proven clamping yoke connection at 9.52 mm pitch, conductor outlet direction in 90° design.

### General ordering data

Version	Printed circuit board terminals, 9.52 mm, Number of poles: 3, 90°, Solder pin length (l): 5 mm, tinned, orange, Clamping yoke connection, Clamping range, max. : 6 mm <sup>2</sup> , Box
Order No.	<a href="#">1724690000</a>
Type	LL 9.52/03/90 5.0SN OR BX
GTIN (EAN)	4008 190959784
Qty.	100 pc(s).
Product data	IEC: 1000 V / 32 A / 0.18 - 6 mm <sup>2</sup> UL: 300 V / 30 A / AWG 26 - AWG 10
Packaging	Box

Creation date September 16, 2022 9:36:33 AM CEST

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## Technical data

## Dimensions and weights

Depth	12.5 mm	Depth (inches)	0.492 inch
Height	26.5 mm	Height (inches)	1.043 inch
Height of lowest version	21.5 mm	Width	29.16 mm
Width (inches)	1.148 inch	Net weight	8.98 g

## System parameters

Product family	OMNIMATE Signal - series LL	Wire connection method	Clamping yoke connection
Property, clamping point	WireReady	Mounting onto the PCB	THT solder connection
Conductor outlet direction	90°	Pitch in mm (P)	9.52 mm
Pitch in inches (P)	0.375 inch	Number of poles	3
Pin series quantity	1	Fitted by customer	Yes
Max. adjacent poles per row	12	Solder pin length (l)	5 mm
Solder pin dimensions	0.5 x 1.0 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	0.8 x 4.0	Screwdriver blade standard	DIN 5264
Tightening torque, min.	0.5 Nm	Tightening torque, max.	0.6 Nm
Clamping screw	M 3	Stripping length	7 mm
L1 in mm	19.04 mm	L1 in inches	0.75 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		

## Material data

Insulating material	Wemid (PA)	Colour	orange
Colour chart (similar)	RAL 2000	Insulating material group	I
Comparative Tracking Index (CTI)	≥ 600	UL 94 flammability rating	V-0
Contact material	Copper alloy	Contact surface	tinned
Coating	4-6 µm SN	Tinning type	matt
Layer structure of solder connection	2...4 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.	0.18 mm <sup>2</sup>
Clamping range, max.	6 mm <sup>2</sup>
Wire connection cross section AWG, min.	AWG 26
Wire connection cross section AWG, max.	AWG 10
Solid, min. H05(07) V-U	0.18 mm <sup>2</sup>
Solid, max. H05(07) V-U	6 mm <sup>2</sup>
Flexible, min. H05(07) V-K	0.22 mm <sup>2</sup>
Flexible, max. H05(07) V-K	4 mm <sup>2</sup>
w. plastic collar ferrule, DIN 46228 pt 4, min.	0.5 mm <sup>2</sup>
w. plastic collar ferrule, DIN 46228 pt 4, max.	2.5 mm <sup>2</sup>
w. wire end ferrule, DIN 46228 pt 1, min.	0.5 mm <sup>2</sup>

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Catalogue status 09.09.2022 / We reserve the right to make technical changes.

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w. wire end ferrule, DIN 46228 pt 1, max. 4 mm<sup>2</sup>

Plug gauge in accordance with EN 60999 a x b; ø 3.6 mm x 3.1 mm; 2.7 mm


Clampable conductor	Cross-section for conductor connection	Type	fine-wired
		nominal	0.5 mm <sup>2</sup>
wire end ferrule	wire end ferrule	Stripping length	nominal 6 mm
		Recommended wire-end ferrule	<a href="#">H0.5/6</a>
Cross-section for conductor connection	Cross-section for conductor connection	Type	fine-wired
		nominal	1 mm <sup>2</sup>
wire end ferrule	wire end ferrule	Stripping length	nominal 6 mm
		Recommended wire-end ferrule	<a href="#">H1.0/6</a>
Cross-section for conductor connection	Cross-section for conductor connection	Type	fine-wired
		nominal	1.5 mm <sup>2</sup>
wire end ferrule	wire end ferrule	Stripping length	nominal 7 mm
		Recommended wire-end ferrule	<a href="#">H1.5/7</a>
Cross-section for conductor connection	Cross-section for conductor connection	Type	fine-wired
		nominal	2.5 mm <sup>2</sup>
wire end ferrule	wire end ferrule	Stripping length	nominal 7 mm
		Recommended wire-end ferrule	<a href="#">H2.5/7</a>
Cross-section for conductor connection	Cross-section for conductor connection	Type	fine-wired
		nominal	0.75 mm <sup>2</sup>
wire end ferrule	wire end ferrule	Stripping length	nominal 6 mm
		Recommended wire-end ferrule	<a href="#">H0.75/6</a>

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)	32 A
Rated current, max. number of poles (Tu=20°C)	32 A	Rated current, min. number of poles (Tu=40°C)	32 A
Rated current, max. number of poles (Tu=40°C)	32 A	Rated voltage for surge voltage class / pollution degree II/2	1,000 V
Rated voltage for surge voltage class / pollution degree III/2	1,000 V	Rated voltage for surge voltage class / pollution degree III/3	690 V
Rated impulse voltage for surge voltage class/ pollution degree II/2	6 kV	Rated impulse voltage for surge voltage class/ pollution degree III/2	8 kV
Rated impulse voltage for surge voltage class/ contamination degree III/3	8 kV	Short-time withstand current resistance	3 x 1s with 120 A

## Rated data acc. to CSA

Institute (CSA)		Certificate No. (CSA)	200039-1815154
Rated voltage (Use group B / CSA)	300 V	Rated voltage (Use group C / CSA)	300 V
Rated current (Use group B / CSA)	30 A	Rated current (Use group C / CSA)	35 A
Wire cross-section, AWG, min.	AWG 26	Wire cross-section, AWG, max.	AWG 10
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

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## Technical data

## 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 C / UL 1059) 300 V

Rated current (Use group B / UL 1059) 30 A

Rated current (Use group C / UL 1059) 30 A

Wire cross-section, AWG, min. AWG 26

Wire cross-section, AWG, max. AWG 10

Reference to approval values

Specifications are maximum values, details - see approval certificate.

## Packing

Packaging	Box	VPE length	332 mm
VPE width	140 mm	VPE height	52 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
- 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

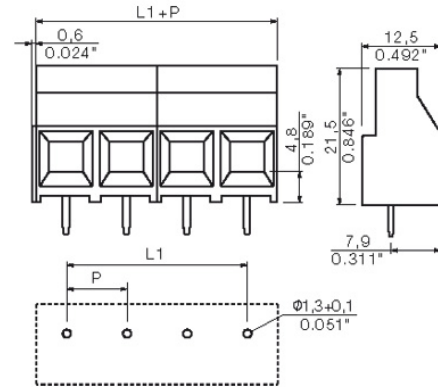


ROHS	Conform
UL File Number Search	UL Website
Certificate No. (cURus)	E60693

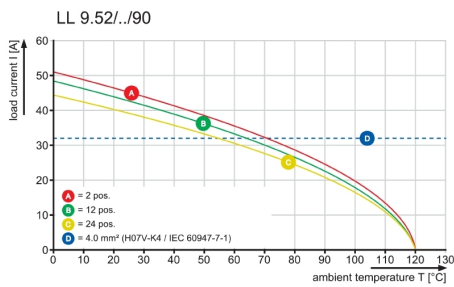
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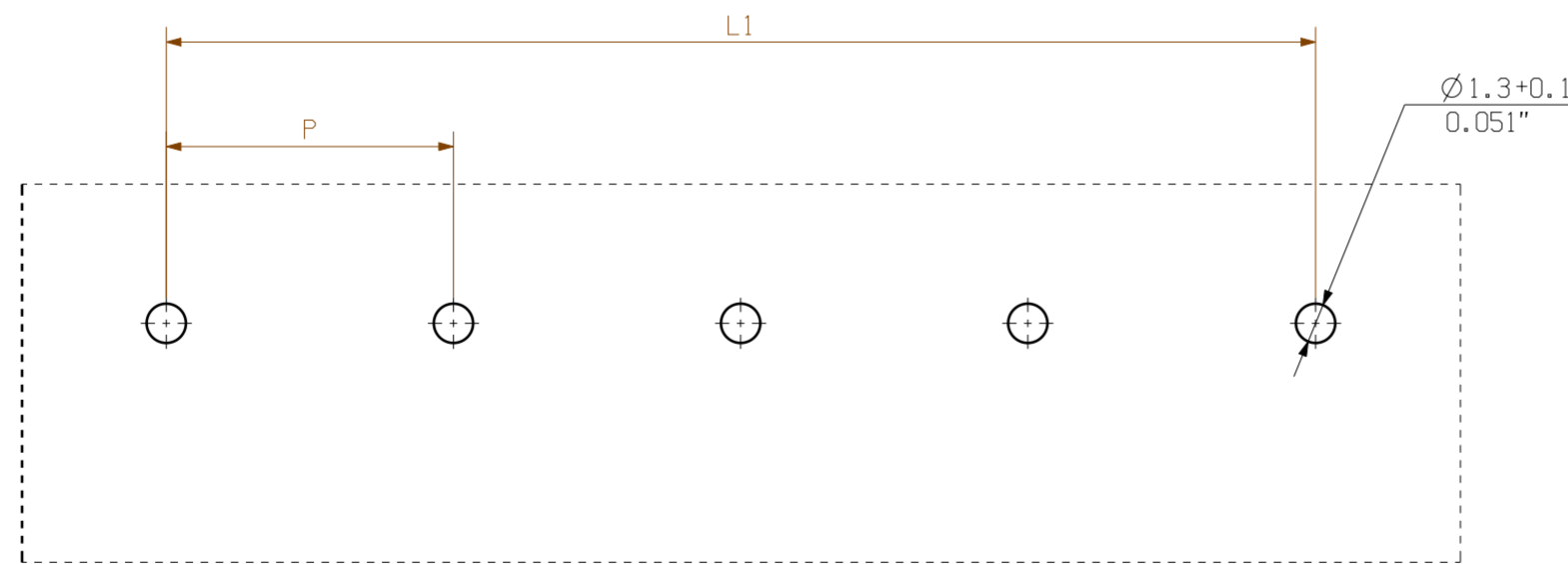
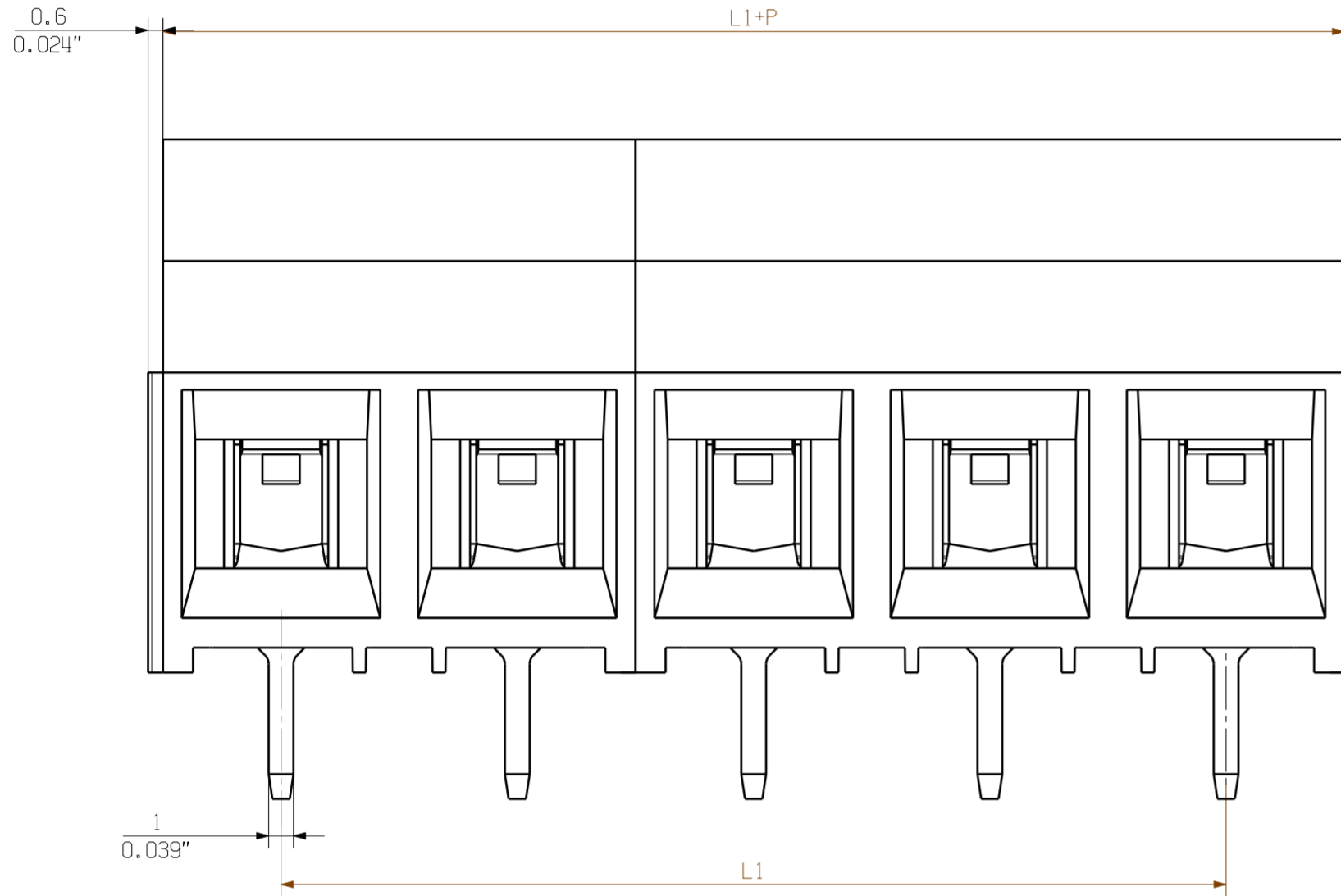
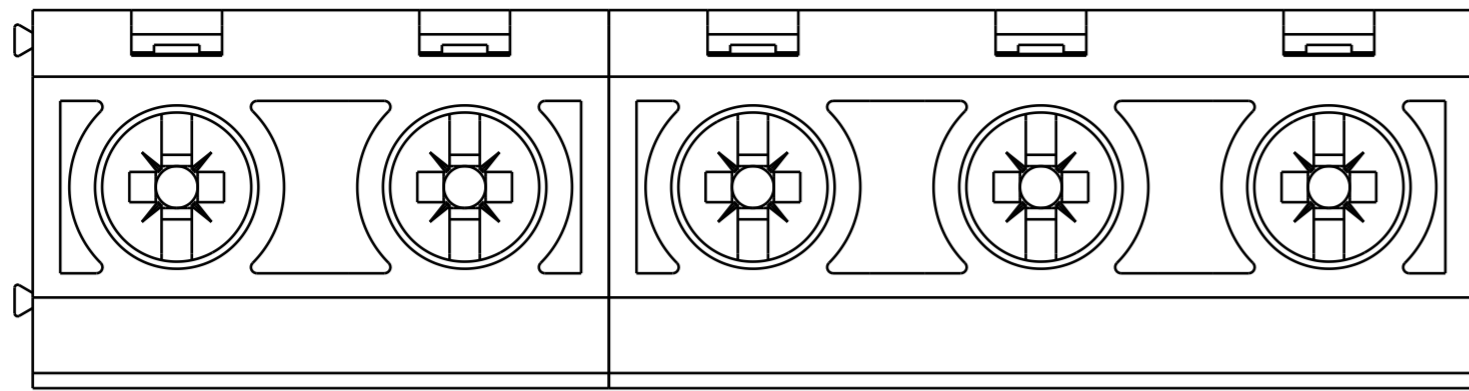
Approval/Certificate/Document of Conformity	<a href="#">Declaration of the Manufacturer</a>
Engineering Data	<a href="#">CAD data – STEP</a>
Engineering Data	<a href="#">EPLAN, WSCAD</a>
Product Change Notification	<a href="#">PCN_2016_273_PL32_Loss_of_nickle_LL_LP_Family_EN</a> <a href="#">PCN_2016_273_PL32_Wegfall_Unternickelung_LL_LP_Familie_DE</a>
User Documentation	<a href="#">QR-Code product handling video</a>
Catalogues	<a href="#">Catalogues in PDF-format</a>
Brochures	<a href="#">FL DRIVES EN</a> <a href="#">MB DEVICE MANUF. EN</a> <a href="#">FL DRIVES DE</a> <a href="#">FL APPL INVERTER EN</a> <a href="#">FL_BASE_STATION_EN</a> <a href="#">FL ELEVATOR EN</a> <a href="#">FL POWER SUPPLY EN</a> <a href="#">FL 72H SAMPLE SER EN</a> <a href="#">PO OMNIMATE EN</a> <a href="#">PO OMNIMATE EN</a>

**Dimensional drawing**



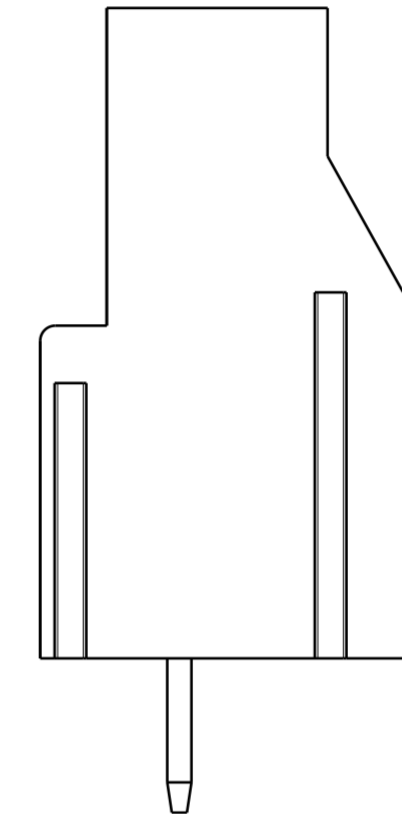
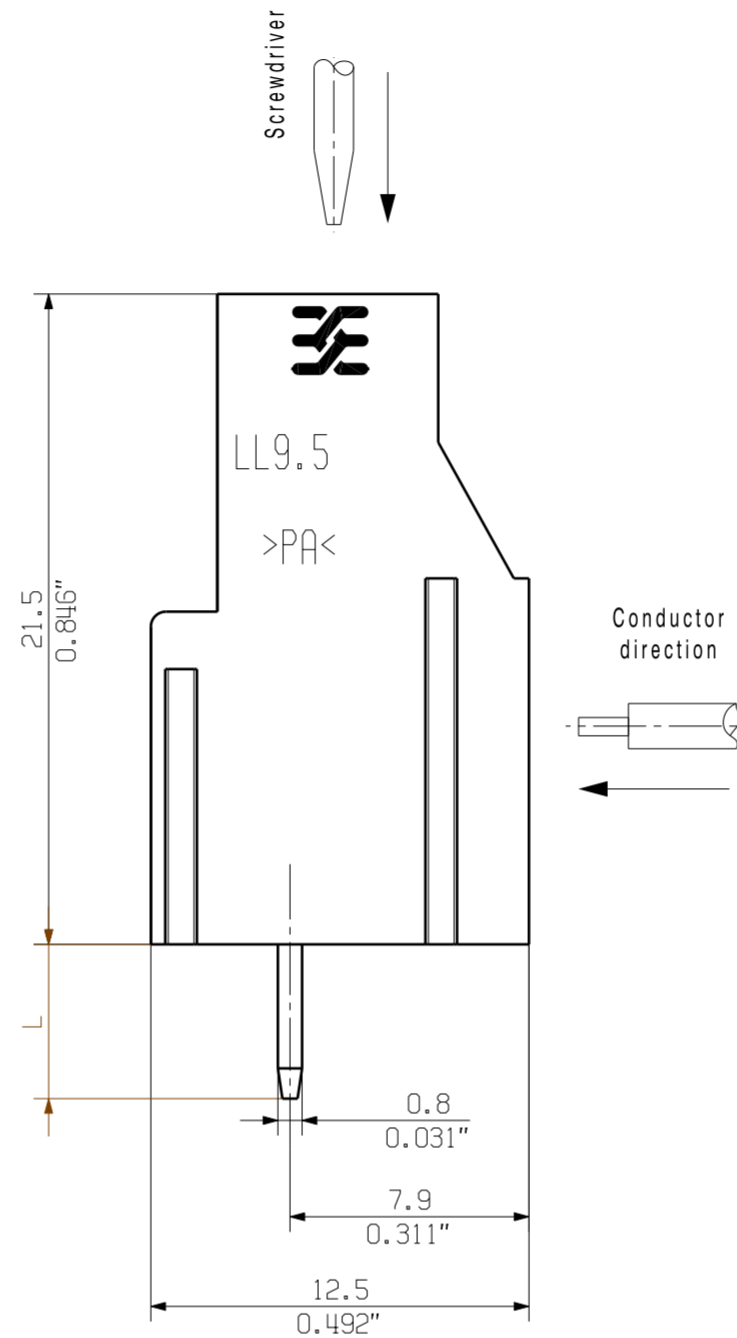
**Graph**



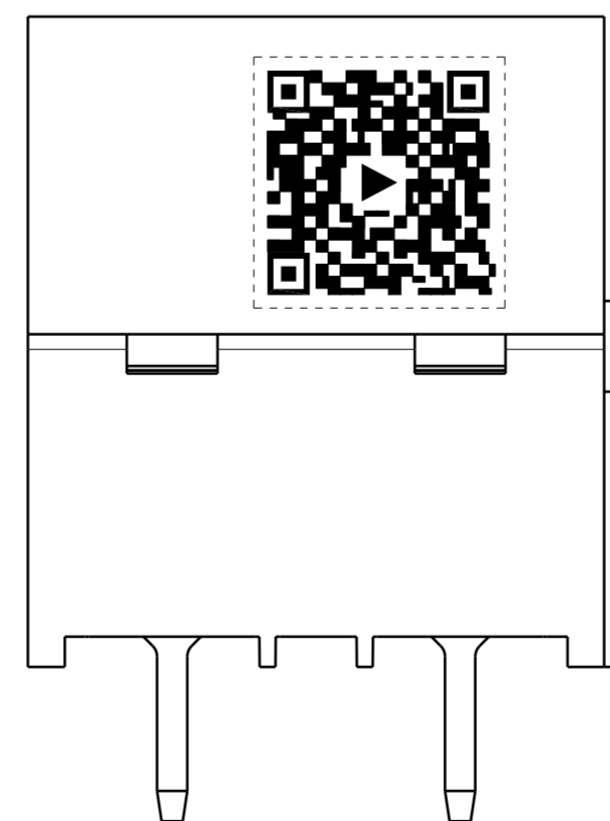


PCB LAYOUT

Customer drawing



Pin length L	Tolerance
5.0	0.10 -0.25



P = 9.52<sub>0.375</sub> inch Pitch

12	104.72	4.125
11	95.20	3.750
10	85.68	3.375
9	76.16	3.000
8	66.64	2.625
7	57.12	2.250
6	47.60	1.875
5	38.08	1.500
4	28.56	1.125
3	19.04	0.750
2	9.52	0.375
N	L1 [mm]	L1 [inch]
P	9.52 mm	0.375 inch

GENERAL TOLERANCE:  
DIN ISO 2768-m

	EC00000683	00	Prim PLM Part No.: 026319	Prim ERP Part No.: 1912970000
	First Issue Date 14.05.2018	Max. nos.	<b>41724</b>	
Modification	Modification			
	Date	Name	<b>LL 9.52/.../90 ...</b> LEITERPLATTENKLEMME PCB TERMINAL	
	Drawn	03.12.2018		
Scale: 4/1	Size: A2	Responsible	Xiang, Keqin	Drawing no. <b>41724</b> Issue no. <b>10</b> Sheet 01 of 01 sheets
Drawings Assembly	Approved	04.12.2018	Xu, Shary	
Product file: 7066 LL 9.52				

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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 to IEC 60664-1 (VDE 0113). The current-carrying capacity and pitch tolerance is to be determined according to DIN IEC 60326-3 very fine.

Weidmüller PCB components are tested to the IEC 60947-7-4 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.

## 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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