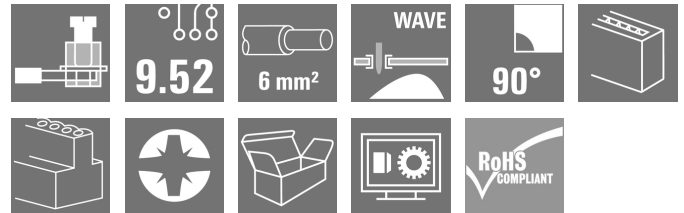


LL 9.52/02/90 5.0SN OR BX**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com**Product image**

This PCB terminal provides connections for 1000 V, 6 mm² 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: 2, 90°, Solder pin length (l): 5 mm, tinned, orange, Clamping yoke connection, Clamping range, max. : 6 mm ² , Box
Order No.	1724680000
Type	LL 9.52/02/90 5.0SN OR BX
GTIN (EAN)	4008190959777
Qty.	100 pc(s).
Product data	IEC: 1000 V / 32 A / 0.18 - 6 mm ² UL: 300 V / 30 A / AWG 26 - AWG 10
Packaging	Box

Creation date May 16, 2025 12:05:17 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	19.64 mm
Width (inches)	0.773 inch	Net weight	6.27 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 "	Number of poles	2
Pin series quantity	1	Fitted by customer	Yes
Number of rows	1	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	9.52 mm
L1 in inches	0.375 "	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	Cu-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 ²
Clamping range, max.	6 mm ²
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 ²
Solid, max. H05(07) V-U	6 mm ²
Stranded, min. H07V-R	0.22 mm ²
Flexible, min. H05(07) V-K	0.22 mm ²
Flexible, max. H05(07) V-K	4 mm ²
w. plastic collar ferrule, DIN 46228 pt 4, 0.5 mm ² min.	
w. plastic collar ferrule, DIN 46228 pt 4, 2.5 mm ² max.	

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Technical data

w. wire end ferrule, DIN 46228 pt 1, min. 0.5 mm²w. wire end ferrule, DIN 46228 pt 1, max. 4 mm²

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 ²	
	wire end ferrule	Stripping length	nominal	6 mm
		Recommended wire-end ferrule	H0.5/6	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	1 mm ²	
	wire end ferrule	Stripping length	nominal	6 mm
		Recommended wire-end ferrule	H1.0/6	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	1.5 mm ²	
	wire end ferrule	Stripping length	nominal	7 mm
		Recommended wire-end ferrule	H1.5/7	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	2.5 mm ²	
	wire end ferrule	Stripping length	nominal	7 mm
		Recommended wire-end ferrule	H2.5/7	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	0.75 mm ²	
	wire end ferrule	Stripping length	nominal	6 mm
		Recommended wire-end ferrule	H0.75/6	

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)	32 A
Rated current, max. number of poles (Tu=40°C)	32 A
Rated voltage for surge voltage class / pollution degree III/2	1,000 V
Rated impulse voltage for surge voltage class/ pollution degree II/2	6 kV
Rated impulse voltage for surge voltage class/ contamination degree III/3	8 kV

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

32 A

Rated current, min. 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/3

690 V

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

8 kV

Short-time withstand current resistance

3 x 1s with 120 A

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Technical data

Rated data acc. to CSA

Institute (CSA)



Certificate No. (CSA)

200039-1815154

Rated voltage (Use group B / CSA)	300 V
Rated current (Use group B / CSA)	30 A
Wire cross-section, AWG, min.	AWG 26
Reference to approval values	Specifications are maximum values, details - see approval certificate.

Rated voltage (Use group C / CSA)	300 V
Rated current (Use group C / CSA)	35 A
Wire cross-section, AWG, max.	AWG 10

Rated data acc. to UL 1059

Institute (cURus)



Certificate No. (cURus)

E60693

Rated voltage (Use group B / UL 1059)	300 V
Rated current (Use group B / UL 1059)	30 A
Wire cross-section, AWG, min.	AWG 26
Reference to approval values	Specifications are maximum values, details - see approval certificate.

Rated voltage (Use group C / UL 1059)	300 V
Rated current (Use group C / UL 1059)	30 A
Wire cross-section, AWG, max.	AWG 10

Packing

Packaging	Box	VPE length	333 mm
VPE width	141 mm	VPE height	51 mm

Type tests

Test: Durability of markings	Test	mark of origin, type identification, pitch, type of material, approval marking UL, approval marking CSA, durability
	Evaluation	available

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Technical data

Test: Clampable cross section	Standard	DIN EN 60999-1 section 7 and 9.1 / 12.00, DIN EN 60947-1 section 8.2.4.5.1 / 12.02
	Conductor type	Type of conductor and solid 0,18 mm ² conductor cross-section
		Type of conductor and flexible 0,22 mm ² conductor cross-section
		Type of conductor and flexible 4 mm ² conductor cross-section
		Type of conductor and solid 6 mm ² conductor cross-section
		Type of conductor and AWG 26/1 conductor cross-section
		Type of conductor and AWG 26/19 conductor cross-section
		Type of conductor and AWG 10/1 conductor cross-section
		Type of conductor and AWG 10/19 conductor cross-section
	Evaluation	passed
Test for damage to and accidental loosening of conductors	Standard	DIN EN 60999-1 section 9.4 / 12.00
	Requirement	0.2 kg
	Conductor type	Type of conductor and stranded 0.25 mm ² conductor cross-section
		Type of conductor and AWG 26/1 conductor cross-section
		Type of conductor and AWG 26/19 conductor cross-section
	Evaluation	passed
	Requirement	0.3 kg
	Conductor type	Type of conductor and solid 0.5 mm ² conductor cross-section
	Evaluation	passed
	Requirement	1.4 kg
	Conductor type	Type of conductor and solid 6 mm ² conductor cross-section
		Type of conductor and AWG 10/1 conductor cross-section
	Evaluation	passed
	Requirement	0,9 kg
	Conductor type	Type of conductor and flexible 4 mm ² conductor cross-section
	Evaluation	passed

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Technical data

Pull-out test	Standard	DIN EN 60999-1 section 9.5 / 12.00
	Requirement	≥10 N
	Conductor type	Type of conductor and AWG 26/1 conductor cross-section
		Type of conductor and AWG 26/19 conductor cross-section
	Evaluation	passed
	Requirement	≥20 N
	Conductor type	Type of conductor and H05V-K0.5 conductor cross-section
		Type of conductor and H05V-U0.5 conductor cross-section
	Evaluation	passed
	Requirement	≥60 N
	Conductor type	Type of conductor and H07V-K4 conductor cross-section
	Evaluation	passed
	Requirement	≥80 N
	Conductor type	Type of conductor and H07V-U6 conductor cross-section
		Type of conductor and AWG 10/1 conductor cross-section
	Evaluation	passed

Classifications

ETIM 6.0	EC002643	ETIM 7.0	EC002643
ETIM 8.0	EC002643	ETIM 9.0	EC002643
ETIM 10.0	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
ECLASS 13.0	27-46-01-01	ECLASS 14.0	27-46-01-01
ECLASS 15.0	27-46-01-01		

Environmental Product Compliance

RoHS Compliance Status	Compliant without exemption
REACH SVHC	No SVHC above 0.1 wt%

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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	- 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. - 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 maximum humidity 70%, 36 months

Approvals

Approvals



Approvals MAMID	https://mdcop.weidmueller.com/mediadelivery/rendition/900_319226/-T1z1mm-S800/ https://mdcop.weidmueller.com/mediadelivery/rendition/900_319230/-T1z1mm-S800/
ROHS	Conform
UL File Number Search	UL Website
Certificate No. (cURus)	E60693

Downloads

Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
Engineering Data	CAD data – STEP
Product Change Notification	PCN_2016_273_PL32_Loss_of_nickle_LL_LP_Family_EN PCN_2016_273_PL32_Wegfall_Uternickelung_LL_LP_Familie_DE Modification of the clamping yoke on product families LM 5.0x, LL 6.35, LL 9.52 and WGK 4 Optimierung des QR-Codes auf den Produkten der OMNIMATE Power Leiterplattenanschlussklemmen Optimization QR- Code on OMNIMATE POWER PCB Terminals
User Documentation	QR-Code product handling video
Catalogues	Catalogues in PDF-format
Brochures	FL DRIVES EN MB DEVICE MANUF. EN FL DRIVES DE 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

Creation date May 16, 2025 12:05:17 AM CEST

Catalogue status 10.05.2025 / We reserve the right to make technical changes.

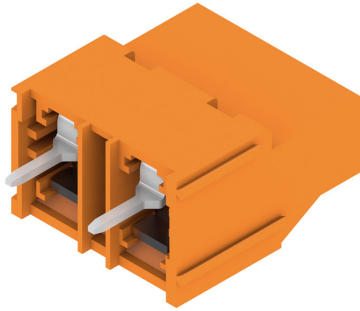
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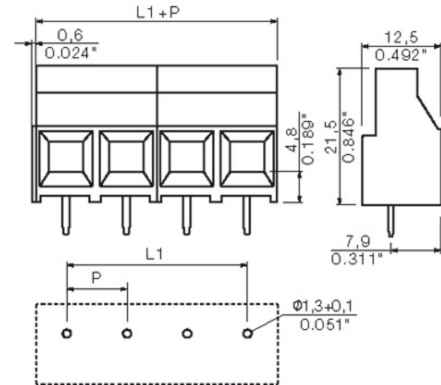
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Drawings

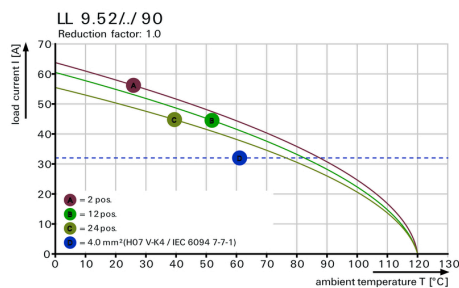
Product image

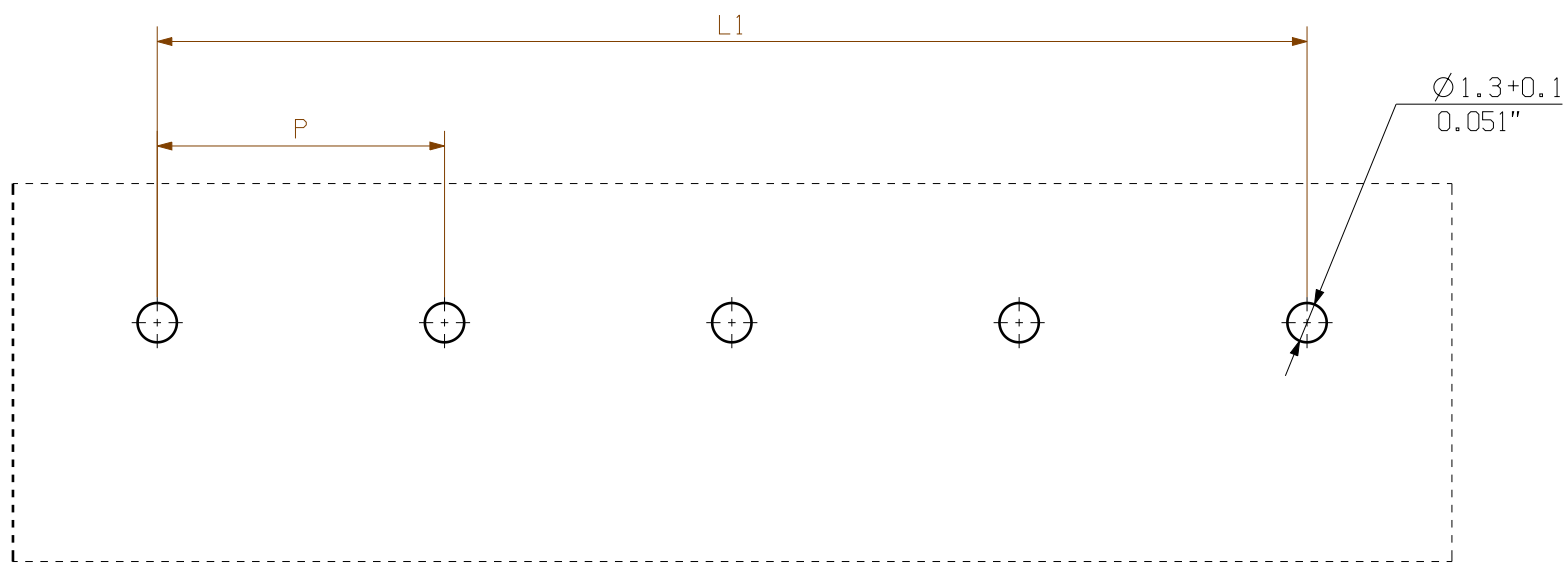
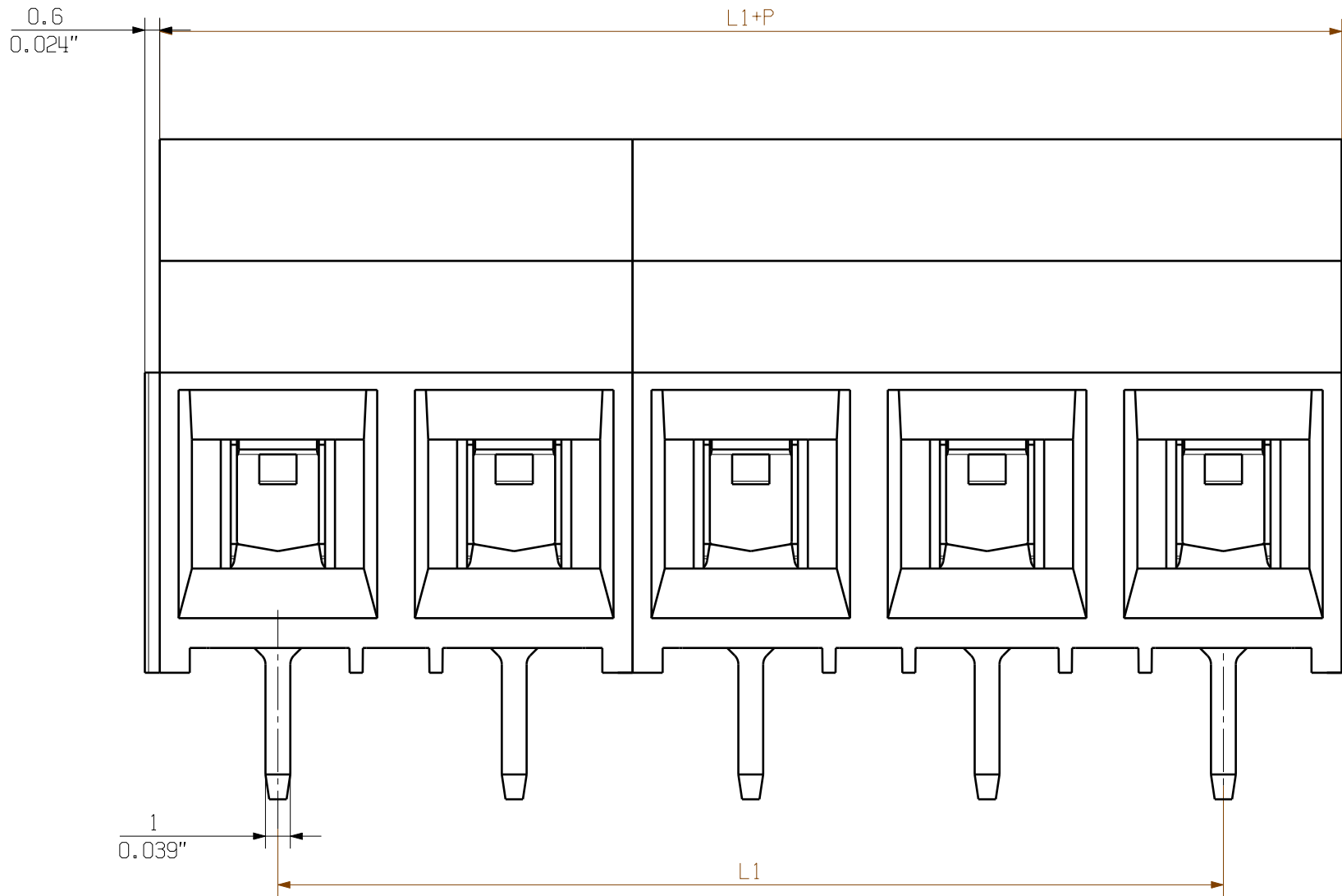
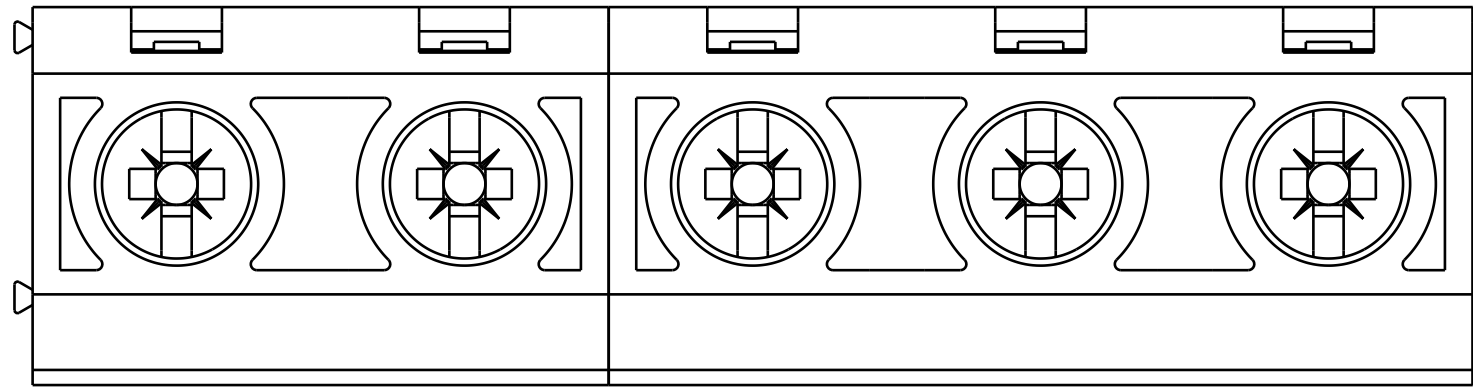


Dimensional drawing



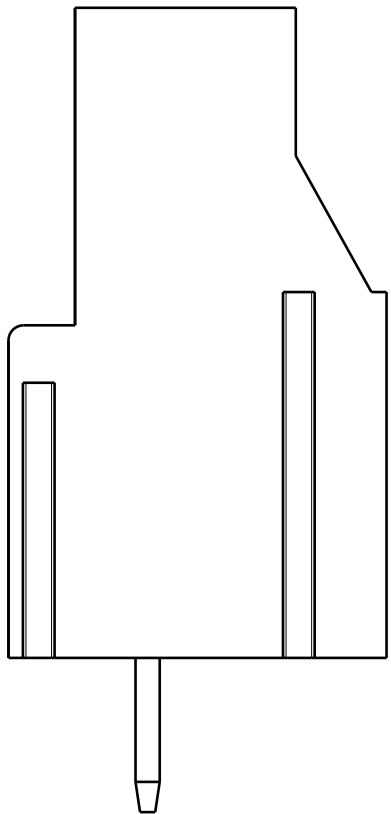
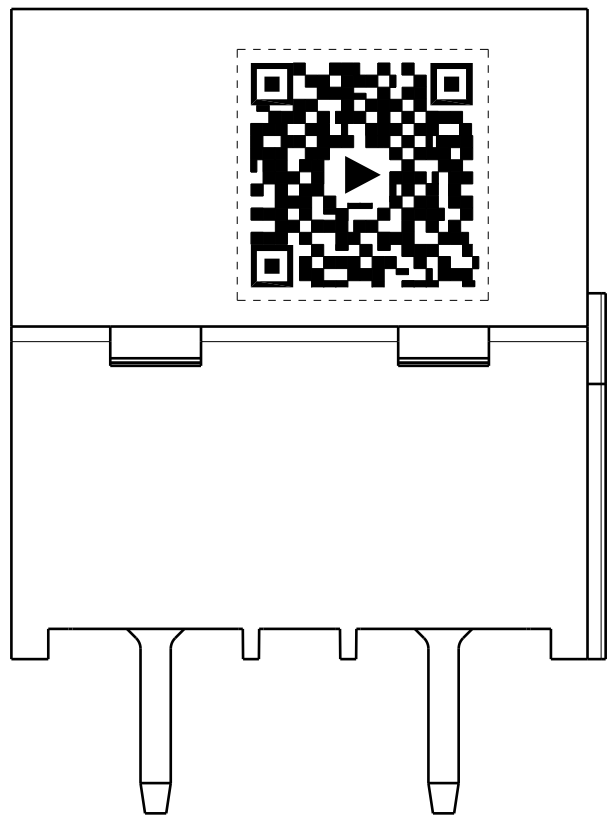
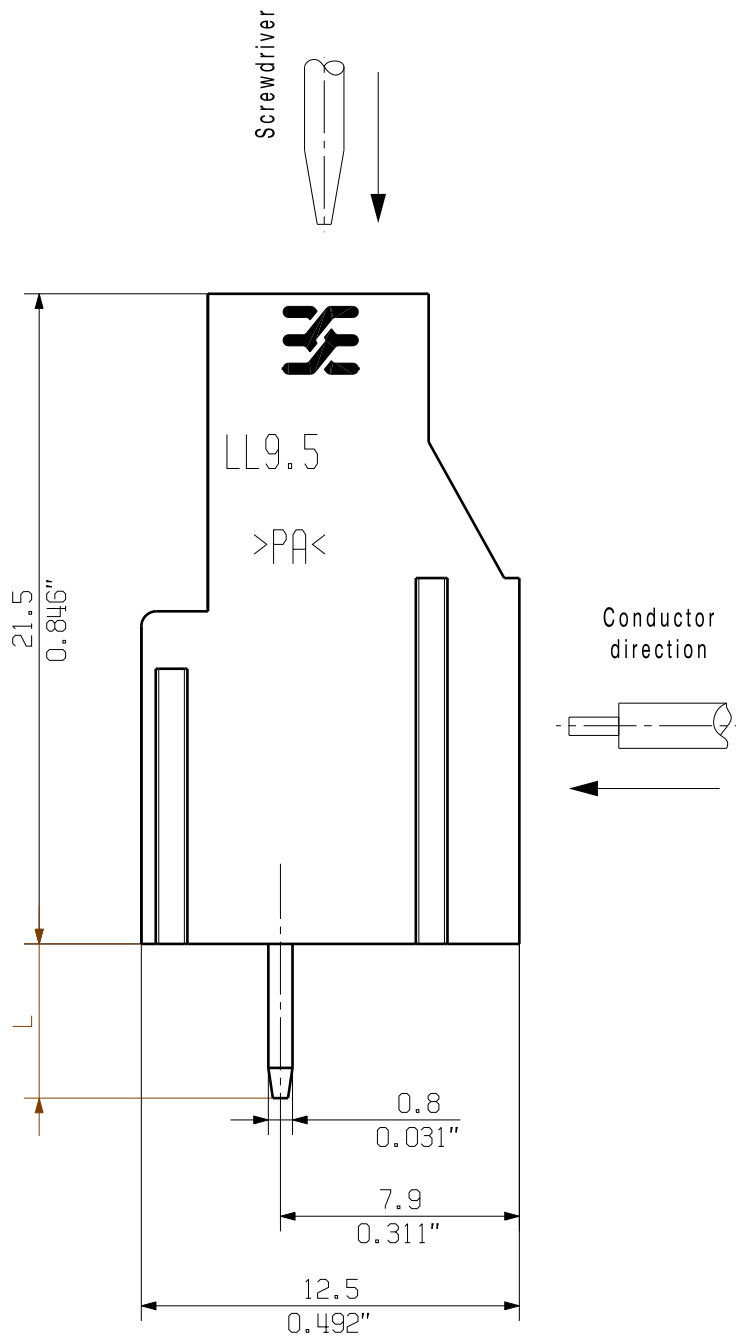
Graph





PCB LAYOUT

Customer drawing



Pin length L	Tolerance
5.0	0.10 -0.25

P= 9.52 Pitch
0.375

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

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 0110). 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.

GENERAL TOLERANCE:
DIN ISO 2768-m

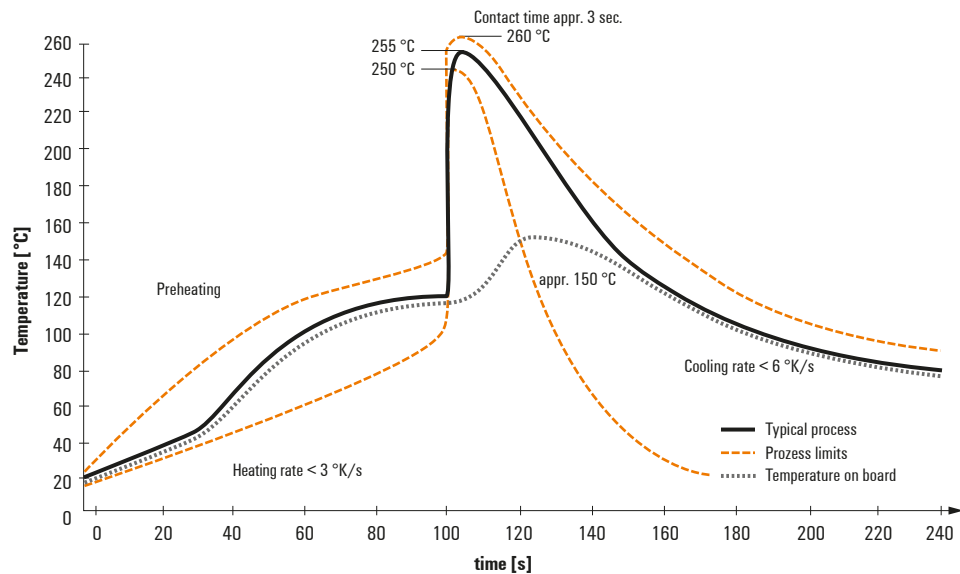
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	First Issue Date 14.05.2018	Max. nos.				41724		
	Modification	Drawing no.				Issue no.		
		Date	Name	Sheet 01 of 01 sheets				
	Drawn	03.12.2018	Xiang, Kegin	LL 9.52/.../90 ... LEITERPLATTENKLEMME PCB TERMINAL				
	Responsible		Xiang, Kegin					
	Approved	04.12.2018	Xu, Shary					
Scale: 4/1		Size: A2		Product file: 7066 LL 9.52				
Drawings Assembly								

Drawing no.	41724	Issue no.	10
Sheet	01	of	01 sheets

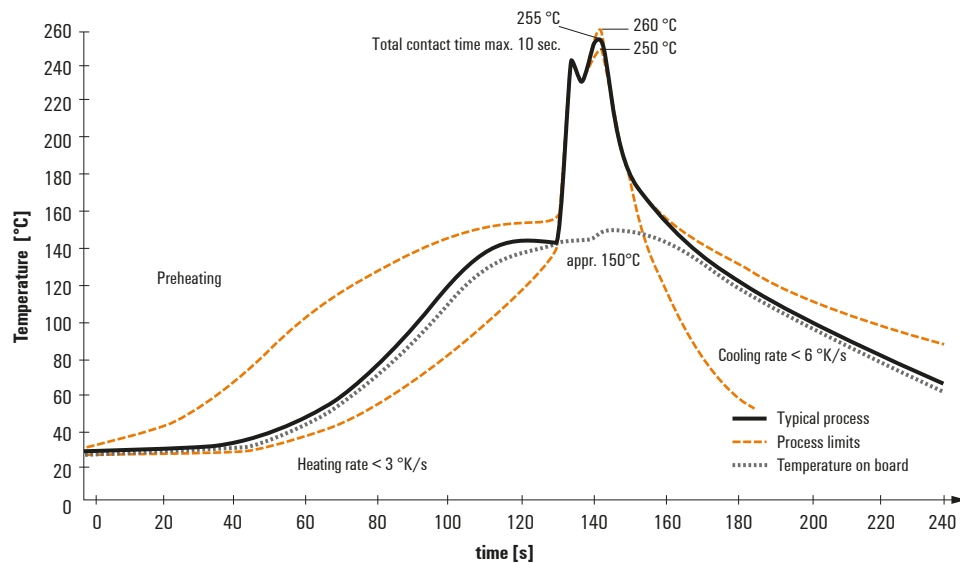
Recommended wave soldering profiles

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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.

We reserve the right to make technical changes.