

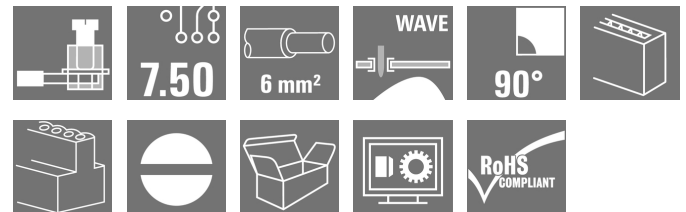
LPP 7.50/02/90 3.2SN OR BX**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Product image

Similar to illustration

Test point, 1000 V, 32 A and 6 mm² conductor cross-section are feasible with this PCB terminal with proven clamping yoke connection at 7.50 and 7.62 mm pitch, conductor outlet direction 135°.

General ordering data

Version	Printed circuit board terminals, 7.50 mm, Number of poles: 2, 90°, Solder pin length (l): 3.2 mm, tinned, orange, Clamping yoke connection, Clamping range, max. : 6 mm ² , Box
Order No.	1594440000
Type	LPP 7.50/02/90 3.2SN OR BX
GTIN (EAN)	4008190013547
Qty.	100 pc(s).
Product data	IEC: 1000 V / 32 A / 0.5 - 6 mm ² UL: 300 V / 20 A / AWG 26 - AWG 12
Packaging	Box

Creation date March 24, 2021 8:08:03 AM CET

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Technical data

Dimensions and weights

Depth	13.4 mm	Depth (inches)	0.528 inch
Height	20.2 mm	Height (inches)	0.795 inch
Height of lowest version	17 mm	Net weight	3.81 g
Width	15.6 mm	Width (inches)	0.614 inch

System parameters

Product family	OMNIMATE Signal - series LP	Wire connection method	Clamping yoke connection
Mounting onto the PCB	THT solder connection	Conductor outlet direction	90°
Pitch in mm (P)	7.5 mm	Pitch in inches (P)	0.295 inch
Number of poles	2	Pin series quantity	1
Fitted by customer	Yes	Max. adjacent poles per row	16
Solder pin length (l)	3.2 mm	Solder pin dimensions	0.75 x 0.9 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.	0.5 Nm
Tightening torque, max.	0.6 Nm	Clamping screw	M 3
Stripping length	6 mm	L1 in mm	7.5 mm
L1 in inches	0.295 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	1.20 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	4...6 µm Ni / 4...6 µm Sn	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.	0.13 mm ²
Clamping range, max.	6 mm ²
Wire connection cross section AWG, min.	AWG 26
Wire connection cross section AWG, max.	AWG 12
Solid, min. H05(07) V-U	0.5 mm ²
Solid, max. H05(07) V-U	6 mm ²
Stranded, max. H07V-R	6 mm ²
Flexible, min. H05(07) V-K	0.5 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.	
w. wire end ferrule, DIN 46228 pt 1, 0.5 mm ² min.	

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Technical data

w. wire end ferrule, DIN 46228 pt 1, max. 2.5 mm²

Plug gauge in accordance with EN 60999 a x b; ø 2.8 mm x 2.4 mm; 3.0 mm

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

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, 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)	30.5 A	Rated voltage for surge voltage class / pollution degree II/2	1,000 V
Rated voltage for surge voltage class / pollution degree III/2	500 V	Rated voltage for surge voltage class / pollution degree III/3	500 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	6 kV
Rated impulse voltage for surge voltage class/ contamination degree III/3	6 kV	Short-time withstand current resistance	3 x 1s with 120 A

Rated data acc. to CSA

Institute (CSA)		Certificate No. (CSA)	200039-1202191
Rated voltage (Use group B / CSA)	300 V	Rated voltage (Use group D / CSA)	300 V
Rated current (Use group B / CSA)	20 A	Rated current (Use group D / CSA)	10 A
Wire cross-section, AWG, min.	AWG 26	Wire cross-section, AWG, max.	AWG 12
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 (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) 20 A

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

Wire cross-section, AWG, min. AWG 26

Wire cross-section, AWG, max. AWG 12

Reference to approval values

Specifications are maximum values, details - see approval certificate.

Packing

Packaging

Box

VPE length

61 mm

VPE width

100 mm

VPE height

118 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

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.
- 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.
- The test point can only be used as potential-pickup point.
- 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

Creation date March 24, 2021 8:08:03 AM CET

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

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Technical data

Downloads

Approval/Certificate/Document of
Conformity

[Declaration of the Manufacturer](#)

Engineering Data

[STEP](#)

Engineering Data

[EPLAN, WSCAD](#)

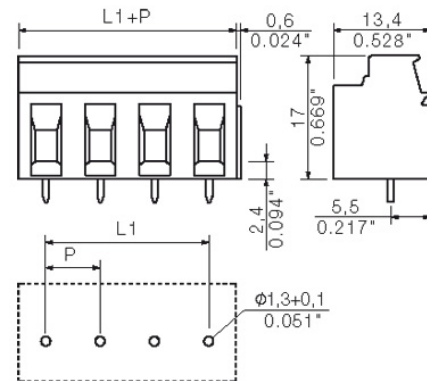
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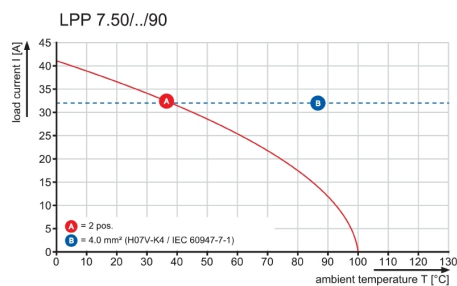
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Drawings

Dimensional drawing



Graph



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Technical Data

Rev.

Material data

Insulation material type	PA 66
Insulation material colours	orange
Insulation material flammability class	UL94 V - 2
Insulation resistance	MOhm 10 ³
Conatct base material	Cu - alloy
Contact plating	tin - plated

System characteristic values

Pitch P	mm/inch	7.50/0.295	
Number of rows		1	
Dielectric strength (r.m.s withstand voltage)	kV	3.3	
Through resistance (typical)	mOhm	0.7	
Operating temperature range	°C	-55 ... +100	1)
Degree of protection acc. to VDE 0106		finger safe	
Degree of protection acc. to DIN EN 60529		IP20	
Conductor connection method		clamping yoke	
Screw size		M3	
Screw torque max. acc. to EN 60999	Nm	0.5	
Screw driver type		SD 0.6x3.5	
Solder pin length L	mm/inch	3.2/0.126	
PCB hole diameter D (wave soldering)	mm/inch	1.3+0.1/0.051+0.004	2)
PCB hole diameter D (reflow soldering)	mm/inch	n.a.	3)
Resistance to soldering heat acc. to DIN IEC 60512-6	°C/sec	260/10	4)
Resistance to soldering heat acc. to EN 61760-1	°C/sec	n.a.	5)
Solderability classification acc. to EN 61760-1		n.a.	
Solder connection type		wave soldering	
Solder pin diameter d (max.)	mm/inch	1.27/0.05	

Application notes

Coding possibility	yes/no	no
Joinable without loss of pitch	yes/no	no
Manual assembly of modules	yes/no	yes
Max. number of poles	n	16

Conductor

Clamping range	mm ²	0.12...6.0
"e" solid H05(07) V-U	mm ²	0.12...6.0
"f" flexible H05(07) V-K	mm ²	0.12...4.0
"f" with ferrule acc. to DIN 46228/1	mm ²	0.5...2.5
... with plastic collar acc. to DIN 46228/4	mm ²	0.5...2.5
Conductor insulation stripping length	mm/inch	6/0.236
Conductor insulation diameter max.	mm/inch	n.a.
Two wire clamping range	mm ²	0.5...1.5
Gauge to EN 60999 (a x b ; Ø)	mm	2.8x2.4; 3

IEC 664-1 / VDE0110 (4.97) rated data

Rated cross section acc. to EN 60999	mm ²	4.0	
Rated current @ 20°C ambient	A	32	6)
Rated current @ 40°C ambient	A	30.5	6)

Overvoltage category / Pollution degree

Rated voltage	V	500	500	1000
Rated impulse voltage	kV	6	6	6

UL 1059 rated data



File No.: E60693

Rated voltage	B	C	D
	300		300
Rated current	20		10
AWG wire range (field wiring / factory wiring)	26...12		

CSA C22.2 rated data



File No.: 154685

Rated voltage	B	C	D
	300		300
Rated current	20		10
AWG wire range (field wiring / factory wiring)	26...12		

Packaging

carton

Downloads

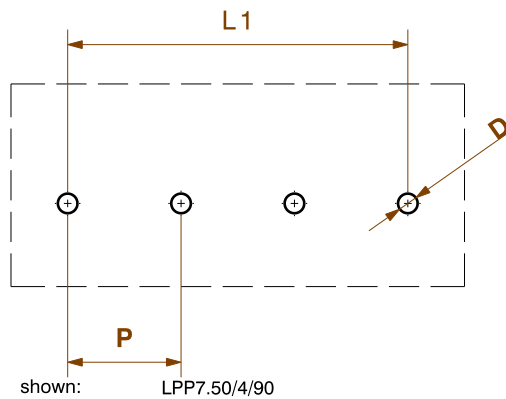
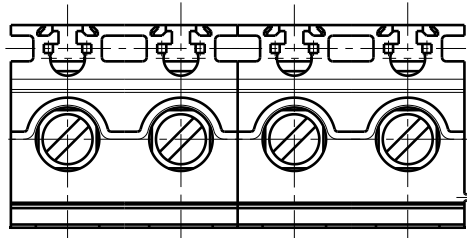
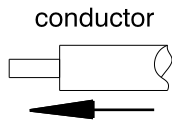
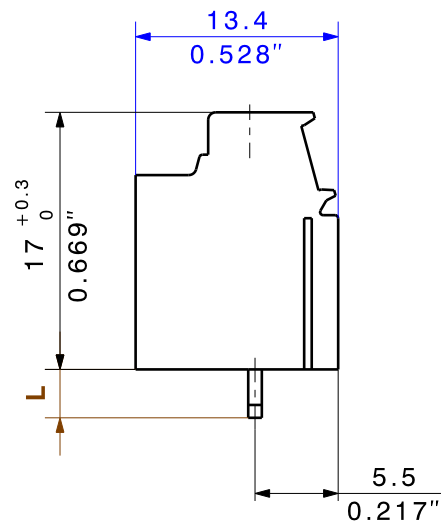
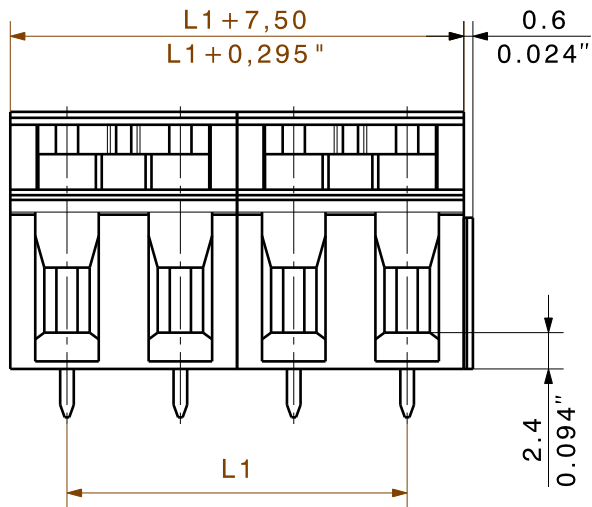
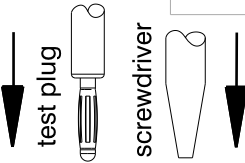
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- 1) Sum of ambient temperature and temperature rise
- 2) Recommendation for manual assembly
- 3) Recommendation for automatic assembly
- 4) Recommendation for wave soldering
- 5) Recommendation for reflow soldering
- 6) Referred to rated cross section and minimum pole number

n.a. = not applicable

Subject to technical changes

DIE DEUTSCHE VERSION IST VERBINDLICH
THE GERMAN VERSION IS BINDING



shown: LPP7.50/4/90

Layout finished holes

16	112,50	4,429
15	105,00	4,134
14	97,50	3,839
13	90,00	3,543
12	82,50	3,248
11	75,00	2,953
10	67,50	2,657
9	60,00	2,362
8	52,50	2,067
7	45,00	1,772
6	37,50	1,476
5	30,00	1,181
4	22,50	0,886
3	15,00	0,591
2	7,50	0,295
n	L1 [mm]	L1 [Inch]

For the mounting of PCBs, it should be noted that the rated data stated here 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 664 / VDE 0110.
The current-carrying capacity and pitch tolerance is to be determined according to DIN IEC 326 part 3 very fine.

Weidmüller PCB components are tested to the DIN EN 61984 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.

METRIC TOLERANCES X. = ±0.3 X.X = ±0.1 X.XX = ±0.05	35722/5 30.08.06 KRUG_M 00	CAT.NO.: 4 22737 06
MODIFICATION	DATE 13.11.2002	NAME KAMP
METRIC/INCH DIMENSIONS	DRAWN	RESPONSIBLE KRUG_M
SCALE: 2:1	CHECKED	HECKERT_M
SUPERSEDES:	APPROVED	GUENTHER_W
SUPERSEDED BY:.	PRODUCT FILE: LPP7.50	TWG

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.