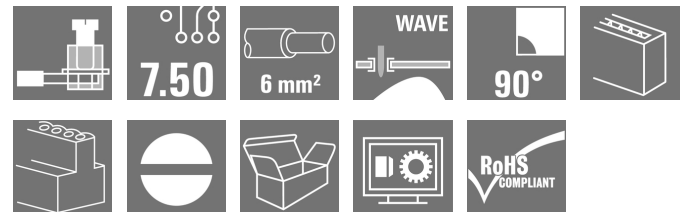


LPP 7.50/02/90 3.2SN OR BX

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)	4008 190013547
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 February 28, 2023 10:42:44 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	Width	15.6 mm
Width (inches)	0.614 inch	Net weight	3.81 g

Temperatures

Operating temperature, min.	-50 °C	Operating temperature, max.	100 °C
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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	Number of rows	1
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
Protection degree	IP20	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.

Creation date February 28, 2023 10:42:44 AM CET

Catalogue status 18.02.2023 / We reserve the right to make technical changes.

2

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Technical data

w. plastic collar ferrule, DIN 46228 pt 4, 2.5 mm² max.

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

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

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	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	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	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		Rated current, min. number of poles (Tu=20°C)	
	IEC 60664-1, IEC 61984		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

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

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Germany

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Technical data**Rated data acc. to CSA**

Institute (CSA)



Certificate No. (CSA)

200039-1202191

Rated voltage (Use group B / CSA)	300 V
Rated current (Use group B / CSA)	20 A
Wire cross-section, AWG, min.	AWG 26

Rated voltage (Use group D / CSA)	300 V
Rated current (Use group D / CSA)	10 A
Wire cross-section, AWG, max.	AWG 12

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 current (Use group B / UL 1059)	20 A
Wire cross-section, AWG, min.	AWG 26

Rated voltage (Use group D / UL 1059)	300 V
Rated current (Use group D / UL 1059)	10 A
Wire cross-section, AWG, max.	AWG 12

Reference to approval values
Specifications are maximum values, details - see approval certificate.

Packing

Packaging	Box	VPE length	117 mm
VPE width	103 mm	VPE height	69 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

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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	<ul style="list-style-type: none"> • Additional variants 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	UL Website
Certificate No. (UR)	E60693

Downloads

Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
Engineering Data	CAD data – STEP
Engineering Data	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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Catalogue status 18.02.2023 / We reserve the right to make technical changes.

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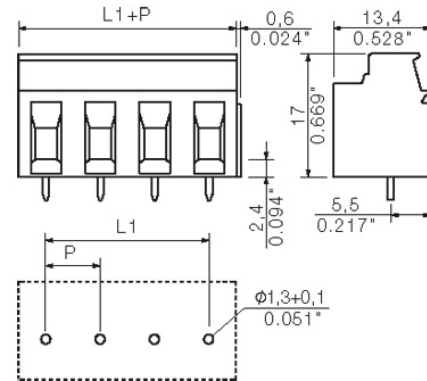
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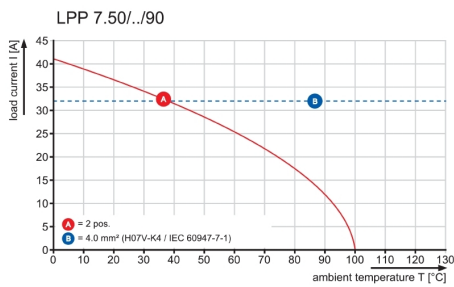
www.weidmueller.com

Drawings

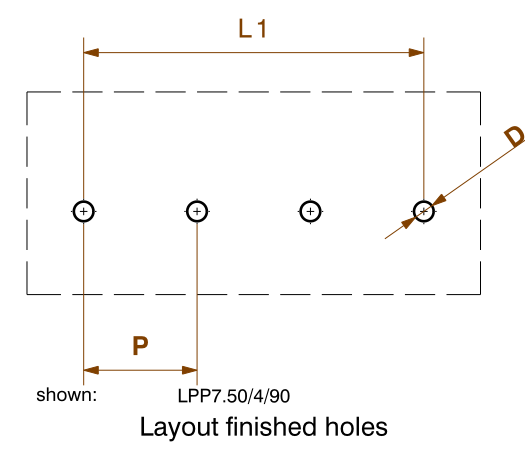
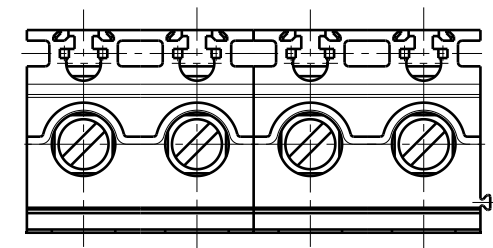
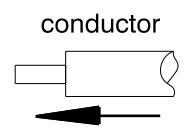
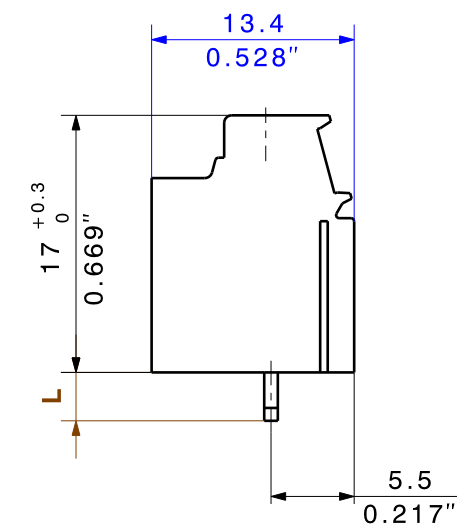
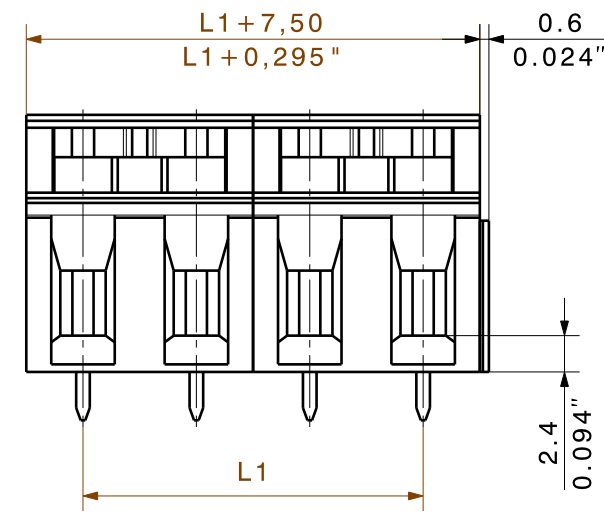
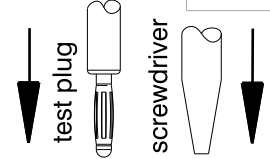
Dimensional drawing



Graph



DIE DEUTSCHE VERSION IST VERBINDLICH
THE GERMAN VERSION IS BINDING



shown: LPP7.50/4/90

Layout finished holes

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

CSA C22.2 rated data		File No.: 154685	B	C	D
Rated voltage	300		300		300
Rated current	20		10		10
AWG wire range (field wiring / factory wiring)	26...12				

Packaging	carton
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Downloads	www.weidmueller.de
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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

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.

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]

METRIC TOLERANCES		CAT.NO.:	
X.	= ±0.3	4 22737 06	
X.X	= ±0.1	DRAWING NO. SHEET 3 OF 4 SHEETS	
X.XX	= ±0.05	ISSUE NO.	
MODIFICATION			
METRIC/INCH DIMENSIONS	DATE	NAME	LPP7.50/90
DRAWN	13.11.2002	KAMP	
RESPONSIBLE		KRUG_M	
CHECKED	31.08.2006	HECKERT_M	
SUPERSEDES:	APPROVED	GUENTHER_W	PRODUCT FILE: LPP7.50
SUPERSEDED BY: .			TWG

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Recommended wave soldering profiles

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 Germany
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 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.