

OMNIMATE Signal - series LP
LP 5.00/05/90 3.2SN OR BX
Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 16

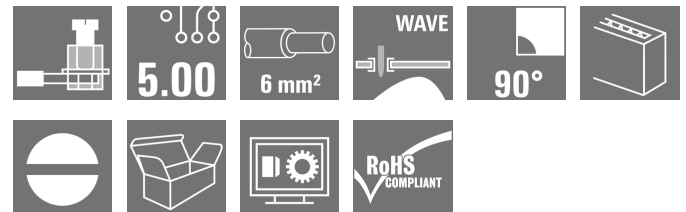
D-32758 Detmold

Germany

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www.weidmueller.com



This PCB terminal provides connections for 32 A and 6 mm² conductor cross-section with proven clamping yoke connection at 5.00 and 5.08 mm pitch, conductor outlet direction in 90°, 135° and 180° design, with extensive auxiliary functions.

- 0.20 - 6.0mm² (IEC) / 26 - 12 AWG (UL)
- 500 V (IEC) / 300 V (UL)
- 32 A (IEC) / 20 A (UL)

General ordering data

Delivery status	This article will no longer be available in the future.
Available until	2018-12-31
Type	LP 5.00/05/90 3.2SN OR BX
Order No.	1759100000
Version	PCB terminal, 5.00 mm, No. of poles: 5, 90°, Solder pin length (l): 3.2 mm, tinned, Orange, Clamping yoke connection, Clamping range, max. : 6 mm ² , Box
GTIN (EAN)	4032248022434
Qty.	50 pc(s).
Product data	IEC: 500 V / 32 A / 0.5 - 6 mm ² UL: 300 V / 20 A / AWG 26 - AWG 12
Packaging	Box
Alternative product	1001730000

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Technical data**Dimensions and weights**

Net weight	7.6 g
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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)	5 mm	Pitch in inches (P)	0.197 inch
No. of poles	5	Fitted by customer	Yes
Max. adjacent poles per row	24	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	20 mm	L1 in inches	0.787 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
CTI	≥ 600	Insulation resistance	≥ 10 ⁸ Ω
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.	-25 °C	Storage temperature, max.	55 °C
Max. relative humidity during storage	80 %	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
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, min.	0.5 mm ²	w. plastic collar ferrule, DIN 46228 pt 4, max.	2.5 mm ²
w. wire end ferrule, DIN 46228 pt 1, min.	0.5 mm ²	w. wire end ferrule, DIN 46228 pt 1, max.	2.5 mm ²
Plug gauge acc. to EN 60999 a x b; Ø	2.8 mm x 2.4 mm; 3.0 mm		

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Rated data acc. to IEC

tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. no. of poles (Ta = 20°C)	32 A
Rated current, max. no. of poles (Ta = 20°C)	30.5 A	Rated current, min. no. of poles (Ta = 40°C)	32 A
Rated current, max. no. of poles (Ta = 40°C)	25 A	Rated voltage for surge voltage class / pollution degree II/2	500 V
Rated voltage for surge voltage class / pollution degree III/2	250 V	Rated voltage for surge voltage class / pollution degree III/3	250 V
Rated impulse voltage for surge voltage class/ pollution degree II/2	4 kV	Rated impulse voltage for surge voltage class/ pollution degree III/2	4 kV
Rated impulse voltage for surge voltage class/ contamination degree III/3	4 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)	300 V	Rated voltage (use group D)	300 V
Rated current (use group B)	20 A	Rated current (use group D)	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.		

Rated data acc. to UL 1059

Institute (UR)		Certificate No. (UR)	E60693
Rated voltage (use group B)	300 V	Rated voltage (use group D)	300 V
Rated current (use group B)	20 A	Rated current (use group D)	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.		

Classifications

ETIM 3.0	EC001284	ETIM 4.0	EC002643
ETIM 5.0	EC002643	ETIM 6.0	EC002643
UNSPSC	30-21-18-01	eClass 6.2	27-26-11-01
eClass 7.1	27-44-04-01	eClass 8.1	27-44-04-01
eClass 9.0	27-44-04-01	eClass 9.1	27-44-04-01

Data sheet

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Technical data

Notes

Notes	<ul style="list-style-type: none"> • 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.
IPC conformity	The products are developed, manufactured and delivered according to the internationally recognised IPC-A-610 standard, category "permissible". More extensive demands on the products can be evaluated on request.

Approvals

Approvals



ROHS

Conform

Downloads

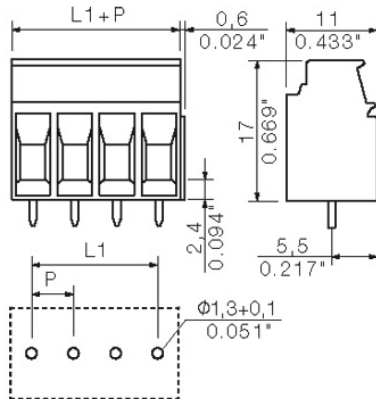
Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
Brochure/Catalogue	FL DRIVES EN FL ANALO.SIGN.CONV. EN MB DEVICE MANUF. EN FL DRIVES DE FL BUILDING SAFETY EN FL APPL LED LIGHTING EN FLIndustr.CONTROLS EN FL MACHINE SAFETY EN FL HEATING ELECTR EN FL APPL INVERTER EN FL_BASE_STATION_EN FL ELEVATOR EN FL POWER SUPPLY EN FL 72H SAMPLE SER EN PO OMNIMATE EN
Engineering Data	EPLAN_WSCAD

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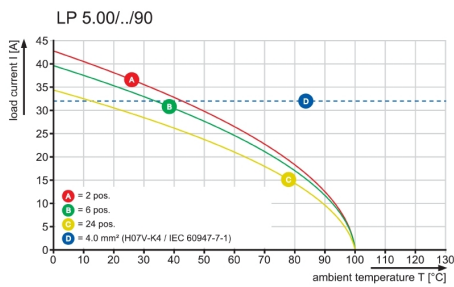
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Drawings

Dimensional drawing



Graph



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Accessories
Isolating elements

Efficient isolation - safe inspections:

The isolating element isolates the current circuits directly at the clamping point and is easy to retrofit - one of the most versatile and efficient terminal printing systems with 5mm pitch: the LP-series by Weidmüller.

Suitable for direct installation on the back of terminals.

- Enclosed safe from finger touch
- 2 in 1 - marking holder for labelling circuit numbers and fuses
- Attachment profile for Dekafix markers

Clear assignment of isolating elements to the correct conductor outlet enables thorough maintenance and inspections.

Safety in compact form - for the service technician and application components.

General ordering data

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
LPA TR STI4.5 OR	1495560000	PCB terminal, Accessories, Disconnection element, Orange, No. of poles: 1	4008190156732	100 pc(s).	IEC: 500 V / 13 A UL:	Box
LPA TR STI3.2 OR	1495460000	PCB terminal, Accessories, Disconnection element, Orange, No. of poles: 1	4008190044688	100 pc(s).	IEC: 500 V / 13 A UL:	Box

Mounting blocks

Minor component, major effect:

Clip-on attachment elements increase the mechanical resilience of the circuit board terminals.

Clip-on or pre-assembled - always the right solution:

- Hard-wearing, precise fitting dovetail joint
- Hard-wearing metal threaded inserts
- Suitable for all outlet directions

Maximum stability, minimum effort:

- Extremely resilient for frequent fastening operations
- Complete set for easy selection

The result: soldering points, contacts and overall module are more resilient against mechanical stress such as vibrations and tensile loads.

General ordering data

Delivery status	Available until	Type	Order No.	Version	GTIN (EAN)	Qty.
Discontinued	2014-05-20T00:00:00+02:00	LPBB MU SW	1747550000	PCB terminal, Accessories, Mounting block, Black, No. of poles: 1	4008190992231	100 pc(s).

Data sheet

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Accessories

LPBB MU OR 1747530000	PCB terminal, Accessories, 4008190992217 100 pc(s). Mounting block, Orange, No. of poles: 1	UL:	Box
LPBB OR 1747540000	PCB terminal, Accessories, 4008190992224 100 pc(s). Mounting block, Orange, No. of poles: 1	UL:	Box
Discontinued 2010-05-12T00:00:00+02:00	LPBB SW 1747560000	PCB terminal, 4008190992248 Accessories, Mounting block, Black, No. of poles: 1	100 pc(s).

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.