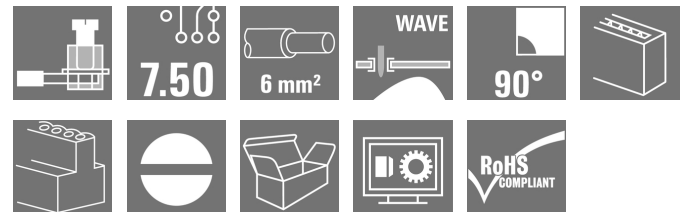


LP 7.50/02/90 3.2SN OR BX

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany

www.weidmueller.com

Product image



Similar to illustration

This PCB terminal provides connections for 1000 V, 6 mm² conductor cross-section and 32 A with proven clamping yoke connection at 7.50 mm and 7.62 mm pitch, conductor outlet direction in 90° and 180° design.

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. | 1594420000 |
| Type | LP 7.50/02/90 3.2SN OR BX |
| GTIN (EAN) | 4008 190023683 |
| 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 |

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Technical data

Dimensions and weights

| | | | |
|--------------------------|------------|-----------------|------------|
| Depth | 19 mm | Depth (inches) | 0.748 inch |
| Height | 14.2 mm | Height (inches) | 0.559 inch |
| Height of lowest version | 11 mm | Width | 15.6 mm |
| Width (inches) | 0.614 inch | Net weight | 3.51 g |

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 | 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, 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 |

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Technical data

| | | | | |
|---|--|------------------------------|----------------------------|------|
| w. wire end ferrule, DIN 46228 pt 1, max. | 2.5 mm ² | | | |
| 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 | 117 mm |
| VPE width | 102 mm | VPE height | 65 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 | | |

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 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. • 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 January 26, 2022 11:28:33 AM CET

Catalogue status 14.01.2022 / 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 | CAD data – STEP |
| Engineering Data | EPLAN, 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 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 PO OMNIMATE EN |

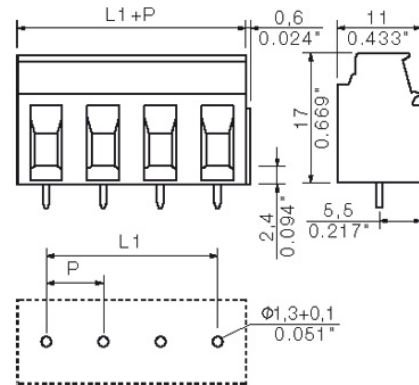
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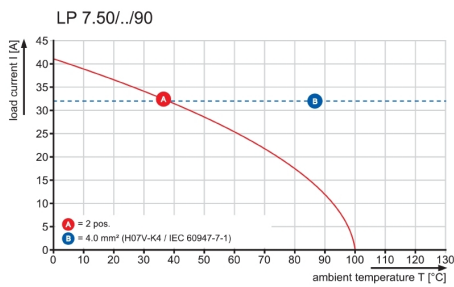
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Drawings

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 | LPA TR STI3.2 OR | Version | Product data | Packaging |
|------------|----------------------------|--|--------------------------|-----------|
| Order No. | 1495460000 | Printed circuit board terminals, Accessories, Spacer, orange, Number of poles: 1 | IEC: 500 V / 13 A UL: | Box |
| GTIN (EAN) | 4008190044688 | | | |
| Qty. | 100 pc(s). | | | |
| Type | LPA TR STI4.5 OR | Version | Product data | Packaging |
| Order No. | 1495560000 | Printed circuit board terminals, Accessories, Spacer, orange, Number of poles: 1 | IEC: 500 V / 13 A UL: | Box |
| GTIN (EAN) | 4008190156732 | | | |
| Qty. | 100 pc(s). | | | |

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

| Type | LPBB OR | Version | Product data | Packaging |
|------------|----------------------------|--|--------------|-----------|
| Order No. | 1747540000 | Printed circuit board terminals, Accessories, Mounting block, orange, Number of poles: 1 | | Box |
| GTIN (EAN) | 4008190992224 | | | |
| Qty. | 100 pc(s). | | | |

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Accessories

| Type | LPBB SW | Version | Product data | Packaging |
|------------|----------------------------|---|--------------|-----------|
| Order No. | 1747560000 | Printed circuit board terminals, Accessories, Mounting block, black, | | Box |
| GTIN (EAN) | 4008190992248 | Number of poles: 1 | | |
| Qty. | 100 pc(s). | | | |
| Type | LPBB MU SW | Version | Product data | Packaging |
| Order No. | 1747550000 | Printed circuit board terminals, Accessories, Mounting block, black, | | Box |
| GTIN (EAN) | 4008190992231 | Number of poles: 1 | | |
| Qty. | 100 pc(s). | | | |
| Type | LPBB MU OR | Version | Product data | Packaging |
| Order No. | 1747530000 | Printed circuit board terminals, Accessories, Mounting block, orange, | | Box |
| GTIN (EAN) | 4008190992217 | Number of poles: 1 | | |
| Qty. | 100 pc(s). | | | |

Recommended wave soldering profiles

Weidmüller Interface GmbH & Co. KG
 Klängenbergstraße 16
 D-32758 Detmold
 Germany
 Fon: +49 5231 14-0
 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.

Mouser Electronics

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