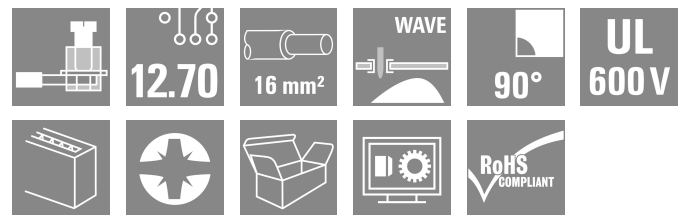
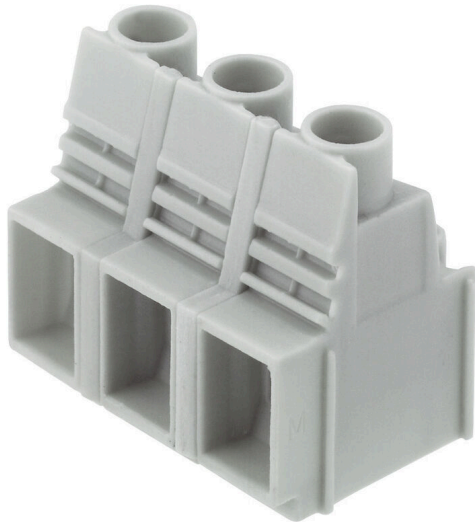


LUP 12.70/03/90 3.2SN GY BX

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

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This PCB terminal provides connections for 1000 V, 76 A and 16 mm² conductor cross-section with proven clamping yoke connection at 12.7 mm pitch, conductor outlet direction in 90° design.

General ordering data

| | |
|--------------|---|
| Version | Printed circuit board terminals, 12.70 mm, Number of poles: 3, 90°, Solder pin length (l): 3.2 mm, tinned, Pebble grey, Clamping yoke connection, Clamping range, max. : 16 mm ² , Box |
| Order No. | 1839190000 |
| Type | LUP 12.70/03/90 3.2SN GY BX |
| GTIN (EAN) | 4032248349296 |
| Qty. | 20 items |
| Product data | IEC: 1000 V / 76 A / 0.5 - 16 mm ² UL: 600 V / 65 A / AWG 22 - AWG 6 |
| Packaging | Box |

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Technical data

Approvals

Approvals



| | |
|-------------------------|----------------------------|
| ROHS | Conform |
| UL File Number Search | UL Website |
| Certificate No. (cURus) | E60693 |

Dimensions and weights

| | | | |
|--------------------------|-------------|-----------------|-------------|
| Depth | 25.1 mm | Depth (inches) | 0.9882 inch |
| Height | 34.7 mm | Height (inches) | 1.3661 inch |
| Height of lowest version | 31.5 mm | Width | 36.36 mm |
| Width (inches) | 1.4315 inch | Net weight | 31.9 g |

Environmental Product Compliance

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

System parameters

| | | | |
|--|------------------------------|--|--------------------------|
| Product family | OMNIMATE Power - series LUP | Wire connection method | Clamping yoke connection |
| Mounting onto the PCB | THT solder connection | Conductor outlet direction | 90° |
| Pitch in mm (P) | 12.70 mm | Pitch in inches (P) | 0.500 " |
| Number of poles | 3 | Pin series quantity | 1 |
| Fitted by customer | Yes | Number of rows | 1 |
| Max. adjacent poles per row | 12 | Solder pin length (l) | 3.2 mm |
| Solder pin dimensions | 1.2 x 1.2 mm | Solder eyelet hole diameter (D) | 1.6 mm |
| Solder eyelet hole diameter tolerance (D)+ | 0,1 mm | Number of solder pins per pole | 2 |
| Screwdriver blade | 1.0 x 5.5, PZ 2 | Screwdriver blade standard | DIN 5264 |
| Tightening torque, min. | 1.2 Nm | Tightening torque, max. | 1.5 Nm |
| Clamping screw | M 4 | Stripping length | 12 mm |
| L1 in mm | 25.40 mm | L1 in inches | 1.000 " |
| Touch-safe protection acc. to DIN VDE 0470 | IP20 plugged/ IP10 unplugged | Touch-safe protection acc. to DIN VDE 57 106 | Safe from finger touch |
| Protection degree | IP20 | Volume resistance | 0.50 mΩ |

Material data

| | | | |
|---------------------------------------|------------|---------------------------------------|----------------------------------|
| Insulating material | Wemid (PA) | Colour | Pebble grey |
| Colour chart (similar) | RAL 7032 | Insulating material group | I |
| Comparative Tracking Index (CTI) | ≥ 600 | Moisture Level (MSL) | |
| UL 94 flammability rating | V-0 | Contact material | Cu-alloy |
| Contact surface | tinned | Layer structure of solder connection | 1.5...3 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. | 0.13 mm ² |
| Clamping range, max. | 16 mm ² |

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Technical data

| | | | | |
|---|--|------------------------------|-----------------------------|-------|
| Wire connection cross section AWG, min. | AWG 22 | | | |
| Wire connection cross section AWG, max. | AWG 6 | | | |
| Solid, min. H05(07) V-U | 0.5 mm ² | | | |
| Solid, max. H05(07) V-U | 16 mm ² | | | |
| Stranded, min. H07V-R | 6 mm ² | | | |
| Stranded, max. H07V-R | 16 mm ² | | | |
| Flexible, min. H05(07) V-K | 0.5 mm ² | | | |
| Flexible, max. H05(07) V-K | 16 mm ² | | | |
| w. plastic collar ferrule, DIN 46228 pt 4, min. | 2.5 mm ² | | | |
| w. plastic collar ferrule, DIN 46228 pt 4, max. | 10 mm ² | | | |
| w. wire end ferrule, DIN 46228 pt 1, min. | 2.5 mm ² | | | |
| w. wire end ferrule, DIN 46228 pt 1, max. | 10 mm ² | | | |
| Plug gauge in accordance with EN 60999 a x b; ø | 5.4 mm x 5.1 mm; 5.3 mm | | | |
| Clampable conductor | Cross-section for conductor connection | Type | fine-wired | |
| | | nominal | 2.5 mm ² | |
| | wire end ferrule | Stripping length | nominal | 12 mm |
| | | Recommended wire-end ferrule | H2.5/12 | |
| | | Stripping length | nominal | 14 mm |
| | | Recommended wire-end ferrule | H2.5/19D BL | |
| | Cross-section for conductor connection | Type | fine-wired | |
| | | nominal | 4 mm ² | |
| | wire end ferrule | Stripping length | nominal | 12 mm |
| | | Recommended wire-end ferrule | H4.0/12 | |
| | | Stripping length | nominal | 14 mm |
| | | Recommended wire-end ferrule | H4.0/20D GR | |
| | Cross-section for conductor connection | Type | fine-wired | |
| | | nominal | 6 mm ² | |
| | wire end ferrule | Stripping length | nominal | 12 mm |
| | | Recommended wire-end ferrule | H6.0/12 | |
| | | Stripping length | nominal | 14 mm |
| | | Recommended wire-end ferrule | H6.0/20 SW | |
| | Cross-section for conductor connection | Type | fine-wired | |
| | | nominal | 10 mm ² | |
| | wire end ferrule | Stripping length | nominal | 15 mm |
| | | Recommended wire-end ferrule | H10.0/22 EB | |
| | | Stripping length | nominal | 12 mm |
| | | Recommended wire-end ferrule | H10.0/12 | |

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) | 76 A |
| Rated current, max. number of poles (Tu=20°C) | 74 A | Rated current, min. number of poles (Tu=40°C) | 76 A |

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Technical data

| | | | |
|---|--------|---|-------------------|
| Rated current, max. number of poles (Tu=40°C) | 64 A | Rated voltage for surge voltage class / pollution degree II/2 | 1000 V |
| Rated voltage for surge voltage class / pollution degree III/2 | 1000 V | Rated voltage for surge voltage class / pollution degree III/3 | 1000 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 | 8 kV |
| Rated impulse voltage for surge voltage class/ contamination degree III/3 | 8 kV | Short-time withstand current resistance | 1 x 1s with 700 A |

Rated data acc. to CSA

| | | | |
|-----------------------------------|--|-----------------------------------|----------------|
| Institute (CSA) | CSA | Certificate No. (CSA) | 200039-1198743 |
| Rated voltage (Use group B / CSA) | 600 V | Rated voltage (Use group C / CSA) | 600 V |
| Rated current (Use group B / CSA) | 65 A | Rated current (Use group C / CSA) | 65 A |
| Wire cross-section, AWG, min. | AWG 22 | Wire cross-section, AWG, max. | AWG 6 |
| Reference to approval values | Specifications are maximum values, details - see approval certificate. | | |

Rated data acc. to UL 1059

| | | | |
|---------------------------------------|--|---------------------------------------|--------|
| Institute (cURus) | CURUS | Certificate No. (cURus) | E60693 |
| Rated voltage (Use group B / UL 1059) | 600 V | Rated voltage (Use group C / UL 1059) | 600 V |
| Rated current (Use group B / UL 1059) | 65 A | Rated current (Use group C / UL 1059) | 65 A |
| Wire cross-section, AWG, min. | AWG 22 | Wire cross-section, AWG, max. | AWG 6 |
| Reference to approval values | Specifications are maximum values, details - see approval certificate. | | |

Packing

| | | | |
|-----------|-----------|------------|-----------|
| Packaging | Box | VPE length | 226.00 mm |
| VPE width | 110.00 mm | VPE height | 45.00 mm |

Type tests

| | | | |
|-------------------------------|----------------|--|------------------------------|
| Test: Durability of markings | Standard | DIN EN 61984 section 7.3.2 / 09.02 taking pattern from DIN EN 60068-2-70 / 07.96 | |
| | Test | mark of origin, type identification, type of material, approval marking UL, durability | |
| | Evaluation | available | |
| | Standard | DIN EN 61984 section 7.3.2 / 09.02 taking pattern from DIN EN 60068-2-70 / 07.96 | |
| | Test | approval marking CSA, approval marking SEV | |
| 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 conductor cross-section | solid 0.5 mm ² |
| | | Type of conductor and conductor cross-section | stranded 0.5 mm ² |
| | | Type of conductor and conductor cross-section | solid 16 mm ² |
| | | Type of conductor and conductor cross-section | stranded 16 mm ² |
| | | Type of conductor and conductor cross-section | AWG 22/1 |

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| | | | |
|---|---|---|------------------------------|
| Test for damage to and accidental loosening of conductors | | Type of conductor and conductor cross-section | AWG 22/19 |
| | | Type of conductor and conductor cross-section | AWG 6/1 |
| | | Type of conductor and conductor cross-section | AWG 6/19 |
| | Evaluation | passed | |
| | Standard | DIN EN 60999-1 section 9.4 / 12.00 | |
| | Requirement | 0.2 kg | |
| | Conductor type | Type of conductor and conductor cross-section | AWG 22/1 |
| | | Type of conductor and conductor cross-section | AWG 22/19 |
| | Evaluation | passed | |
| | Requirement | 0.3 kg | |
| | Conductor type | Type of conductor and conductor cross-section | solid 0.5 mm ² |
| | | Type of conductor and conductor cross-section | stranded 0.5 mm ² |
| Evaluation | passed | | |
| Requirement | 2.9 kg | | |
| Conductor type | Type of conductor and conductor cross-section | solid 16 mm ² | |
| | Type of conductor and conductor cross-section | stranded 16 mm ² | |
| | Type of conductor and conductor cross-section | AWG 6/7 | |
| Evaluation | passed | | |
| Standard | DIN EN 60999-1 section 9.5 / 12.00 | | |
| Requirement | ≥15 N | | |
| Conductor type | Type of conductor and conductor cross-section | AWG 22/1 | |
| | Type of conductor and conductor cross-section | AWG 22/19 | |
| Evaluation | passed | | |
| Requirement | ≥20 N | | |
| Conductor type | Type of conductor and conductor cross-section | H05V-U0.5 | |
| | Type of conductor and conductor cross-section | H05V-K0.5 | |
| Evaluation | passed | | |
| Requirement | ≥100 N | | |
| Conductor type | Type of conductor and conductor cross-section | H07V-K16 | |
| | Type of conductor and conductor cross-section | H07V-U16 | |

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Technical data

| | | |
|------------|---|---------|
| | Type of conductor and conductor cross-section | AWG 6/7 |
| Evaluation | passed | |

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 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
 - The data given under CSA relates to a cUL approval - E60693
 - 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.
 - Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months

Classifications

| | | | |
|-------------|-------------|-------------|-------------|
| ETIM 8.0 | EC002643 | ETIM 9.0 | EC002643 |
| ETIM 10.0 | EC002643 | ECLASS 14.0 | 27-46-01-01 |
| ECLASS 15.0 | 27-46-01-01 | | |

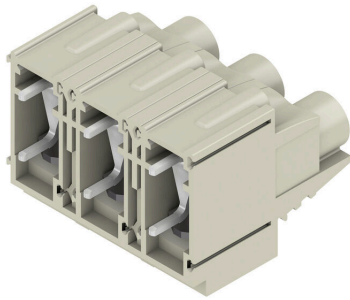
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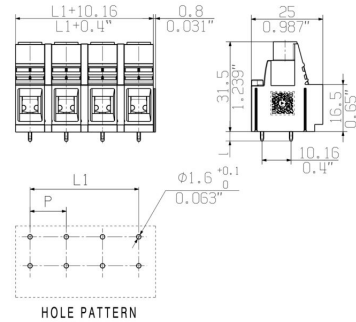
www.weidmueller.com

Drawings

Product image



Dimensional drawing



Graph



Graph



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Accessories

Additional accessories



No task is too small when creating the perfect solution. Connections form just one part of the overall process. Small details are often the key to the perfect solution in applications where potentials are tested, grouped or even isolated.

A system is not a system without small but essential details:

- Test plugs ensure reliable pick-up from diagnostic sockets

In tandem with the manufacturing process and application.

General ordering data

| | | | |
|------------|---------------------------|--|--|
| Type | PS 2.0 MC | Version | |
| Order No. | 031000000 | PCB plug-in connector, Accessories, Test plug, red, Number of poles: | |
| GTIN (EAN) | 4008190000059 | 1 | |
| Qty. | 20 ST | | |

Intermediate plates



The maximum voltage is based on the minimum distance. Intermediate plates increase the creepage and clearance distances between different potentials and permit higher rated voltages or a clear separation, e.g. between mains and low voltages or different protection zones.

The dovetail joint enables easy installation and guarantees a secure fit. Other characteristics include:

- Pitch extended by 1.27 or 2.54mm - all other combinations possible
- Colour coding ensures visual differentiation
- Different geometries for standard designs.

Incomplete individual assemblies avoided because separate terminal blocks combine to form a single holistic unit. Ready-assembled on request.

The advantages: efficient processing, increased stability, improved reliability.

General ordering data

| | | | |
|------------|---------------------------|---|--|
| Type | LUP ZP 2.54 GY | Version | |
| Order No. | 183758000 | Printed circuit board terminals, Accessories, Intermediate plate, | |
| GTIN (EAN) | 4032248347315 | Pebble grey, Number of poles: 1 | |
| Qty. | 50 ST | | |