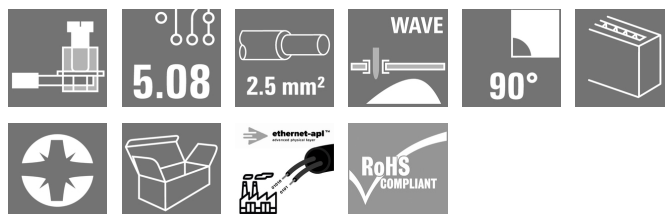


LM APL 5.08/03/90 3.5SN OR BX**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com**Features and benefits:**

- Ethernet-APL compliant
- Space and weight saving design
- Cost-effective alternative to RJ45 and M12 connections
- Available with PUSH IN, SNAP IN, clamping yoke or tension spring connection
- Suitable for THT and THR soldering processes
- 10 Mbit/s communication for long ranges (1000m) according to IEEE 802.3cg-2019
- PoDL remote power supply according to IEEE 802.3bu
- Ethernet-APL is suitable for all IIoT devices and tailored for the process industry

General ordering data

| | |
|--------------|---|
| Version | Printed circuit board terminals, 5.08 mm, Number of poles: 3, 90°, Solder pin length (l): 3.5 mm, tinned, orange, Clamping yoke connection, Clamping range, max. : 2.5 mm², Box |
| Order No. | 2873500000 |
| Type | LM APL 5.08/03/90 3.5SN OR BX |
| GTIN (EAN) | 4064675644538 |
| Qty. | 500 pc(s). |
| Product data | IEC: 630 V / 17.5 A / 0.2 - 2.5 mm² UL: 300 V / 15 A / AWG 24 - AWG 14 |
| Packaging | Box |

Creation date July 1, 2024 2:35:56 AM CEST

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Technical data**Dimensions and weights**

| | | | |
|--------------------------|------------|-----------------|------------|
| Depth | 10 mm | Depth (inches) | 0.394 inch |
| Height | 17.3 mm | Height (inches) | 0.681 inch |
| Height of lowest version | 13.8 mm | Width | 15.79 mm |
| Width (inches) | 0.622 inch | Net weight | 3.62 g |

System specifications

| | | | |
|---------------------------------|----------------------------------|--|-----------------------------|
| Mounting onto the PCB | THT solder connection | Number of poles | 3 |
| Number of solder pins per pole | 1 | Pitch in inches (P) | 0.2 " |
| Pitch in mm (P) | 5.08 mm | Product family | OMNIMATE Signal - series LM |
| Protection degree | IP20 | Side termination, characteristic | closed side |
| Solder eyelet hole diameter (D) | 1.3 mm | Solder eyelet hole diameter tolerance (D)+ | 0,1 mm |
| Solder pin dimensions | 0.95 x 0.8 mm | Solder pin length (l) | 3.5 mm |
| Soldering process | Manual soldering, Wave soldering | Tolerance of solder pin position | ± 0.1 mm |

Electrical properties

| | |
|-------------------|---------|
| Volume resistance | 1.20 mΩ |
|-------------------|---------|

Material data

| | | | |
|--------------------------------------|--------------------------------|-----------------------------|--------|
| Insulating material | Wemid (PA) | Colour | orange |
| Colour chart (similar) | RAL 2000 | Insulating material group | I |
| Comparative Tracking Index (CTI) | ≥ 600 | UL 94 flammability rating | V-0 |
| Contact material | Cu-alloy | Contact surface | tinned |
| Coating | 1-3 µm Ni, 4-6 µm SN | Tinning type | matt |
| Layer structure of solder connection | 1...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 | | |

Packing

| | | | |
|-----------|--------|------------|--------|
| Packaging | Box | VPE length | 247 mm |
| VPE width | 173 mm | VPE height | 84 mm |

Type tests

| | | |
|------------------------------|------------|---|
| Test: Durability of markings | Test | mark of origin, type identification, pitch, type of material, approval marking UL, approval marking CSA, durability |
| | Evaluation | available |

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Technical data

| | | |
|---|----------------|--|
| 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 solid 0.2 mm ² conductor cross-section |
| | | Type of conductor and stranded 0.2 mm ² conductor cross-section |
| | | Type of conductor and stranded 1.5 mm ² conductor cross-section |
| | | Type of conductor and solid 2.5 mm ² conductor cross-section |
| | | Type of conductor and AWG 24/1 conductor cross-section |
| | | Type of conductor and AWG 24/19 conductor cross-section |
| | | Type of conductor and AWG 14/1 conductor cross-section |
| | | Type of conductor and AWG 14/19 conductor cross-section |
| | Evaluation | passed |
| Test for damage to and accidental loosening of conductors | Standard | DIN EN 60999-1 section 9.4 / 12.00 |
| | Requirement | 0.2 kg |
| | Conductor type | Type of conductor and stranded 0.25 mm ² conductor cross-section |
| | | Type of conductor and AWG 24/1 conductor cross-section |
| | | Type of conductor and AWG 24/19 conductor cross-section |
| | Evaluation | passed |
| | Requirement | 0.3 kg |
| | Conductor type | Type of conductor and solid 0.5 mm ² conductor cross-section |
| | | |
| | Evaluation | passed |
| | Requirement | 0.4 kg |
| | Conductor type | Type of conductor and stranded 1.5 mm ² conductor cross-section |
| | | |
| | Evaluation | passed |
| | Requirement | 0.7 kg |
| | Conductor type | Type of conductor and solid 2.5 mm ² conductor cross-section |
| | | Type of conductor and AWG 14/1 conductor cross-section |
| | | Type of conductor and AWG 14/19 conductor cross-section |
| | Evaluation | passed |

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Technical data

| | | |
|---------------|----------------|---|
| Pull-out test | Standard | DIN EN 60999-1 section 9.5 / 12.00 |
| | Requirement | ≥10 N |
| | Conductor type | Type of conductor and stranded 0.25 mm ² conductor cross-section |
| | | Type of conductor and AWG 24/1 conductor cross-section |
| | | Type of conductor and AWG 24/19 conductor cross-section |
| | Evaluation | passed |
| | Requirement | ≥20 N |
| | Conductor type | Type of conductor and H05V-U0.5 conductor cross-section |
| | | |
| | Evaluation | passed |
| | Requirement | ≥40 N |
| | Conductor type | Type of conductor and H07V-K1.5 conductor cross-section |
| | | |
| | Evaluation | passed |
| | Requirement | ≥50 N |
| | Conductor type | Type of conductor and H07V-U2.5 conductor cross-section |
| | | Type of conductor and AWG 14/1 conductor cross-section |
| | | Type of conductor and AWG 14/19 conductor cross-section |
| | Evaluation | passed |

Classifications

| | | | |
|-------------|-------------|-------------|-------------|
| ETIM 6.0 | EC002643 | ETIM 7.0 | EC002643 |
| ETIM 8.0 | EC002643 | ETIM 9.0 | 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 | ECLASS 13.0 | 27-46-01-01 |

Environmental Product Compliance

REACH SVHC /

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"> Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months |

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Technical data

Approvals

Approvals



| | |
|------|---------|
| ROHS | Conform |
|------|---------|

| | |
|-----------------------|------------|
| UL File Number Search | UL Website |
|-----------------------|------------|

| | |
|-------------------------|--------|
| Certificate No. (cULus) | E60693 |
|-------------------------|--------|

Downloads

| | |
|------------------|---------------------------------|
| Engineering Data | CAD data – STEP |
|------------------|---------------------------------|

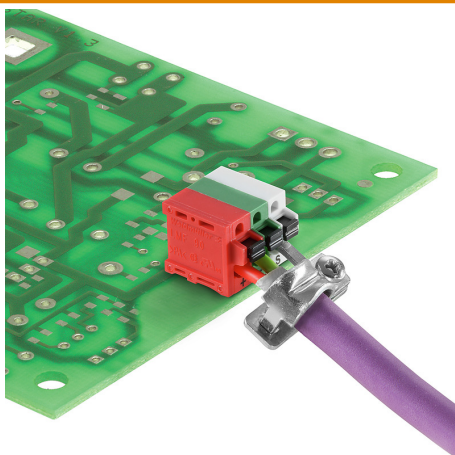
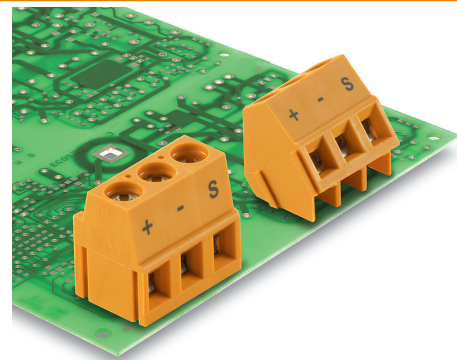
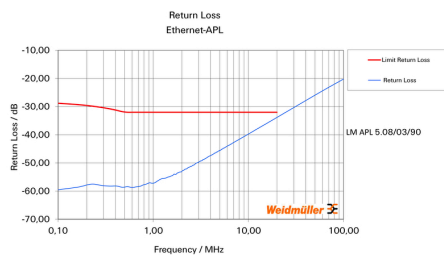
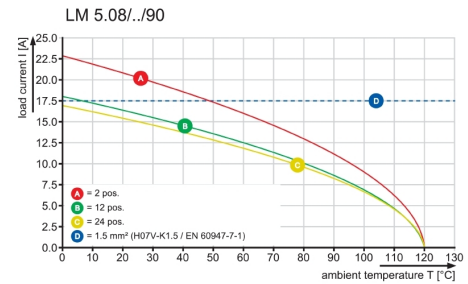
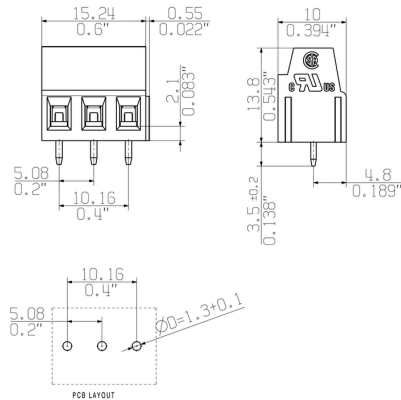
| | |
|------------|--|
| Catalogues | Catalogues in PDF-format |
|------------|--|

LM APL 5.08/03/90 3.5SN OR BX

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Drawings



LM APL 5.08/03/90 3.5SN OR BX

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

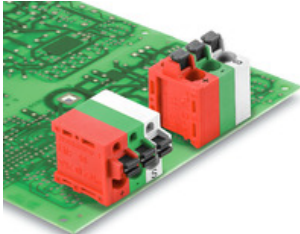
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Accessories

Ethernet-APL



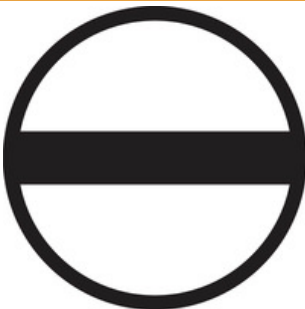
Features and benefits:

- Ethernet-APL compliant
- Space and weight saving design
- Cost-effective alternative to RJ45 and M12 connections
- Available with PUSH IN, SNAP IN, clamping yoke or tension spring connection
- Suitable for THT and THR soldering processes
- 10 Mbit/s communication for long ranges (1000m) according to IEEE 802.3cg-2019
- PoDL remote power supply according to IEEE 802.3bu
- Ethernet-APL is suitable for all IIoT devices and tailored for the process industry

General ordering data

| Type | SH ETH U | Version | Packaging |
|------------|----------------------------|--|-----------|
| Order No. | 2903230000 | Shield clamp, Accessories, Screw flange, Number of poles: 1, zinc plated, Silver grey, Box | Box |
| GTIN (EAN) | 4099986575172 | | |
| Qty. | 25 pc(s). | | |

Slotted screwdriver



VDE insulated slot-head screwdriver, SDI DIN 7437, ISO 2380/2, drive output acc. to DIN 5264, ISO 2380/1. SoftFinish grip

General ordering data

| Type | SDIS 0.6X3.5X100 | Version |
|------------|----------------------------|---|
| Order No. | 2749810000 | Screwdriver, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade thickness (A): 0.6 mm |
| GTIN (EAN) | 4050118897012 | |
| Qty. | 1 pc(s). | |

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www.weidmueller.com**Accessories****Crosshead screwdriver Phillips**

Crosshead screwdriver, Phillips, SDK PH DIN 5262, ISO 8764/2-PH, output to ISO 8764-PH, ChromTop tip, SoftFinish grip

General ordering data

| | | |
|------------|----------------------------|---|
| Type | SDK PH0 X 60 | Version |
| Order No. | 2749400000 | Screwdriver, Blade width (B): 60 mm, Blade thickness (A): |
| GTIN (EAN) | 4050118895629 | |
| Qty. | 1 pc(s). | |

Slotted screwdriver

Slotted screwdriver with rounded blade SD DIN 5265, ISO 2380/2, output to DIN 5264, ISO 2380/1. ChromTop tip, SoftFinish grip

General ordering data

| | | |
|------------|----------------------------|---|
| Type | SDS 0.6X3.5X100 | Version |
| Order No. | 2749340000 | Screwdriver, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade |
| GTIN (EAN) | 4050118895568 | thickness (A): 0.6 mm |
| Qty. | 1 pc(s). | |

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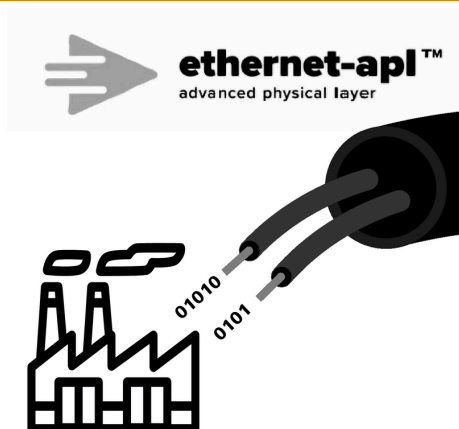
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Drawings



Recommended wave soldering profiles

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 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.

We reserve the right to make technical changes.