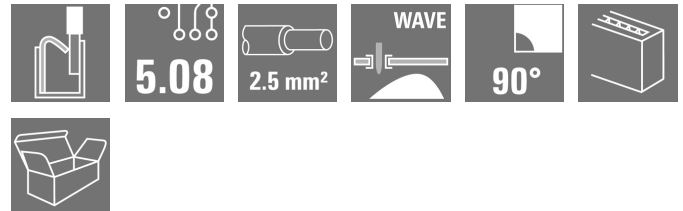


LMF 5.08/04/90PN 3.5SN BX**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com**Your special benefits**

- Cost-effective alternative to RJ45 and M12 connections
- Ethernet-compliant data transmission e.g. for PROFINET applications (Cat. 5, up to 100 Mbps)
- Proven PUSH IN wire connection
- Suitable for THT (LMF) and THR (LSF-SMT)soldering process
- Suitable for data transmission according to ISO / IEC 11801-1; DIN EN 50173-1 (VDE 0800-173-1) and ANSI/TIA-568-B.2-10
- Wide range of applications for all IIoT devices

General ordering data

| | |
|--------------|--|
| Version | Printed circuit board terminals, 5.08 mm, Number of poles: 4, 90°, Solder pin length (l): 3.5 mm, tinned, coloured, PUSH IN with actuator, Clamping range, max. : 2.5 mm², Box |
| Order No. | 2672960000 |
| Type | LMF 5.08/04/90PN 3.5SN BX |
| GTIN (EAN) | 4050118697902 |
| Qty. | 70 pc(s). |
| Product data | IEC: 400 V / 24 A / 0.5 - 2.5 mm² UL: 300 V / 20 A / AWG 24 - AWG 12 |
| Packaging | Box |

Creation date June 4, 2024 7:54:29 AM CEST

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Technical data

Dimensions and weights

| | | | |
|--------------------------|------------|-----------------|------------|
| Depth | 19.2 mm | Depth (inches) | 0.756 inch |
| Height | 14.8 mm | Height (inches) | 0.583 inch |
| Height of lowest version | 14.8 mm | Width | 22.94 mm |
| Width (inches) | 0.903 inch | Net weight | 7.157 g |

System specifications

| | | | |
|---------------------------------|----------------------------------|--|------------------------------|
| Category | Cat. 5 | Mounting onto the PCB | THT solder connection |
| Number of poles | 4 | Number of solder pins per pole | 2 |
| Performance-Category | Cat. 5 | Pitch in inches (P) | 0.2 " |
| Pitch in mm (P) | 5.08 mm | Product family | OMNIMATE Signal - series LMF |
| Protection degree | IP20 | Side termination, characteristic | closed side |
| Solder eyelet hole diameter (D) | 1.1 mm | Solder eyelet hole diameter tolerance (D)+ | 0,1 mm |
| Solder pin dimensions | d = 0.8 mm, 0.6 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 |

Material data

| | | | |
|---------------------------------------|------------|---------------------------------------|-------------------------|
| Insulating material | Wemid (PA) | Colour | coloured |
| Colour chart (similar) | - | Comparative Tracking Index (CTI) | ≥ 600 |
| UL 94 flammability rating | V-0 | Contact material | Cu-alloy |
| Contact surface | tinned | Coating | 4-6 µm SN |
| Tinning type | matt | Layer structure of solder connection | 4...6 undefined 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. | 0.12 mm ² |
| Clamping range, max. | 2.5 mm ² |
| Wire connection cross section AWG, min. | AWG 24 |
| Wire connection cross section AWG, max. | AWG 12 |
| Solid, min. H05(07) V-U | 0.5 mm ² |
| Solid, max. H05(07) V-U | 2.5 mm ² |
| Stranded, min. H07V-R | 0.5 mm ² |
| Stranded, max. H07V-R | 2.5 mm ² |
| Flexible, min. H05(07) V-K | 0.25 mm ² |
| Flexible, max. H05(07) V-K | 2.5 mm ² |
| w. plastic collar ferrule, DIN 46228 pt 4, 0.25 mm ² min. | |
| w. plastic collar ferrule, DIN 46228 pt 4, 2.5 mm ² max. | |
| w. wire end ferrule, DIN 46228 pt 1, min. | 0.25 mm ² |
| w. wire end ferrule, DIN 46228 pt 1, max. | 2.5 mm ² |
| Plug gauge in accordance with EN 60999 a x b; ø | 2.4 mm x 1.5 mm |

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Technical data

| | | | |
|---------------------|--|------------------------------|----------------------------|
| Clampable conductor | Cross-section for conductor connection | Type | fine-wired |
| | | nominal | 0.5 mm ² |
| | wire end ferrule | Stripping length | nominal 12 mm |
| | | Recommended wire-end ferrule | H0.5/16 OR |
| | | Stripping length | nominal 10 mm |
| | | Recommended wire-end ferrule | H0.5/10 |
| | Cross-section for conductor connection | Type | fine-wired |
| | | nominal | 0.75 mm ² |
| | wire end ferrule | Stripping length | nominal 12 mm |
| | | Recommended wire-end ferrule | H0.75/16 W |
| | | Stripping length | nominal 10 mm |
| | | Recommended wire-end ferrule | H0.75/10 |
| | Cross-section for conductor connection | Type | fine-wired |
| | | nominal | 1 mm ² |
| | wire end ferrule | Stripping length | nominal 12 mm |
| | | Recommended wire-end ferrule | H1.0/16D R |
| | | Stripping length | nominal 10 mm |
| | | Recommended wire-end ferrule | H1.0/10 |
| | Cross-section for conductor connection | Type | fine-wired |
| | | nominal | 1.5 mm ² |
| | wire end ferrule | Stripping length | nominal 10 mm |
| | | Recommended wire-end ferrule | H1.5/10 |
| | | Stripping length | nominal 12 mm |
| | | Recommended wire-end ferrule | H1.5/16 R |
| | Cross-section for conductor connection | Type | fine-wired |
| | | nominal | 2.5 mm ² |
| | wire end ferrule | Stripping length | nominal 10 mm |
| | | Recommended wire-end ferrule | H2.5/10 |
| 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) | 24 A |
| Rated current, max. number of poles (Tu=20°C) | 24 A | Rated current, min. number of poles (Tu=40°C) | 24 A |
| Rated current, max. number of poles (Tu=40°C) | 24 A | Rated voltage for surge voltage class / pollution degree II/2 | 400 V |
| Rated voltage for surge voltage class / pollution degree III/2 | 320 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

| | | | |
|-----------------------------------|--------|-----------------------------------|--------|
| 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 24 | Wire cross-section, AWG, max. | AWG 12 |

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Technical data

Rated data acc. to UL 1059

Institute (cURus)



Certificate No. (cURus)

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 24

Wire cross-section, AWG, max. AWG 12

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

Packing

| | | | |
|-----------|--------|------------|--------|
| Packaging | Box | VPE length | 351 mm |
| VPE width | 139 mm | VPE height | 33 mm |

Type tests

| | | |
|-------------------------------|----------------|---|
| Test: Durability of markings | Standard | IEC 61984 section 6.2 and 7.3.2 / 10.11 |
| | Test | mark of origin, type identification, type of material, approval marking UL, approval marking CSA, durability, pitch, date clock |
| | Evaluation | available |
| Test: Clampable cross section | Standard | IEC 60999-1 section 7 and 9.1 / 11.99, IEC 60947-1 section 8.2.4.5.1 / 03.11 |
| | Conductor type | Type of conductor and solid 0.14 mm ² conductor cross-section |
| | | Type of conductor and stranded 0.14 mm ² conductor cross-section |
| | | Type of conductor and solid 2.5 mm ² conductor cross-section |
| | | Type of conductor and stranded 2.5 mm ² conductor cross-section |
| | | Type of conductor and AWG 26/1 conductor cross-section |
| | | Type of conductor and AWG 26/19 conductor cross-section |
| | | Type of conductor and AWG 14/1 conductor cross-section |
| | | Type of conductor and AWG 12/19 conductor cross-section |
| | Evaluation | passed |

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Test for damage to and accidental loosening of conductors

| | |
|----------------|---|
| Standard | IEC 60999-1 section 9.4 / 11.99 |
| Requirement | 0.2 kg |
| Conductor type | Type of conductor and stranded 0.25 mm ² conductor cross-section |
| | Type of conductor and AWG 26/1 conductor cross-section |
| | Type of conductor and AWG26/19 conductor cross-section |
| Evaluation | passed |
| Requirement | 0.3 kg |
| Conductor type | Type of conductor and H05V-U0.5 conductor cross-section |
| | Type of conductor and H05V-K0.5 conductor cross-section |
| Evaluation | passed |
| Requirement | 0.7 kg |
| Conductor type | Type of conductor and H07V-U2.5 conductor cross-section |
| | Type of conductor and H07V-K2.5 conductor cross-section |
| | Type of conductor and AWG 14/1 conductor cross-section |
| Evaluation | passed |
| Requirement | 0.9 kg |
| Conductor type | Type of conductor and AWG 12/19 conductor cross-section |
| Evaluation | passed |

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Technical data

| | | |
|---------------|----------------|---|
| Pull-out test | Standard | IEC 60999-1 section 9.5 / 11.99 |
| | Requirement | ≥10 N |
| | Conductor type | Type of conductor and AWG 26/1 conductor cross-section |
| | | Type of conductor and AWG 26/19 conductor cross-section |
| | Evaluation | passed |
| | Requirement | ≥15 N |
| | Conductor type | Type of conductor and stranded 0.25 mm ² conductor cross-section |
| | | |
| | Evaluation | passed |
| | Requirement | ≥20 N |
| | Conductor type | Type of conductor and H05V-U0.5 conductor cross-section |
| | | Type of conductor and H05V-K0.5 conductor cross-section |
| | Evaluation | passed |
| | Requirement | ≥50 N |
| | Conductor type | Type of conductor and H07V-U2.5 conductor cross-section |
| | | Type of conductor and H07V-K2.5 conductor cross-section |
| | | Type of conductor and AWG 14/1 conductor cross-section |
| | Evaluation | passed |
| | Requirement | ≥60 N |
| | Conductor type | Type of conductor and AWG 12/19 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 |

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www.weidmueller.com**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.• Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months |

Approvals

Approvals



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

Downloads

| | |
|------------------|--|
| Engineering Data | CAD data – STEP |
| Catalogues | Catalogues in PDF-format |

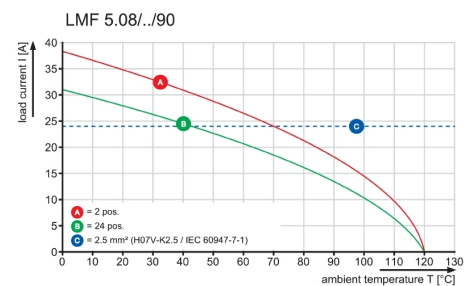
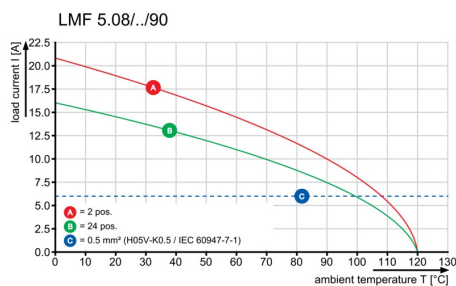
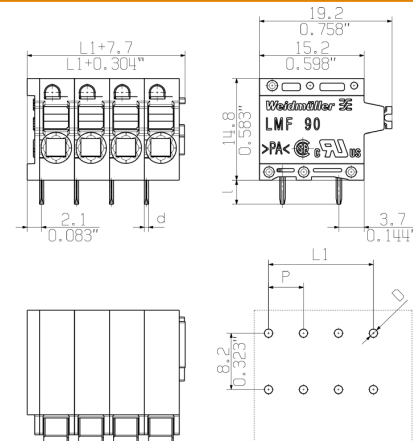
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Drawings

Dimensioned drawing



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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 | Product data | Packaging |
|------------|----------------------------|--|--------------|-----------|
| Order No. | 0310000000 | PCB plug-in connector, Accessories, Test plug, red, Number of poles: 1 | | Box |
| GTIN (EAN) | 4008190000059 | | | |
| Qty. | 20 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. | 9008390000 | Screwdriver, Screwdriver |
| GTIN (EAN) | 4032248056354 | |
| Qty. | 1 pc(s). | |

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.