

## Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold Germany

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## 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, 5.00 mm, Number of poles: 3, 90°, Solder pin length (I): 3.5 mm, tinned, orange, coloured, PUSH IN with push button, Clamping range, max.: 2.5 mm², Box |
|--------------|--|
| Order No.    | <u>2873480000</u>  |
| Туре         | LMF APL 5.00/03/90 3.5SN BX  |
| GTIN (EAN)   | 4064675644514  |
| Qty.         | 90 items   |
| Product data | IEC: 400 V / 24 A / 0.5 - 2.5 mm <sup>2</sup><br>UL: 300 V / 20 A / AWG 24 - AWG 12  |
| Packaging    | Вох  |





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# **Technical data**

| Approvals  | c <b>Al</b> aus  |   |                                  |
|--|--|---|----------------------------------|
| ROHS   | Conform  |   |                                  |
| UL File Number Search                                  | <u>UL Website</u>  |   |                                  |
| Certificate No. (cURus)                                | E60693   |   |                                  |
| Dimensions and weights                                 |  |   |                                  |
| Depth  | 19.2 mm  | Depth (inches)  | 0.7559 inch                      |
| Height   | 18.3 mm  | Height (inches)   | 0.7205 inch                      |
| Height of lowest version                               | 14.8 mm  | Width   | 17.7 mm                          |
| Width (inches)   | 0.6968 inch  | Net weight  | 4.64 g                           |
| Environmental Product Comp                             | oliance  |   |                                  |
| RoHS Compliance Status                                 | Compliant without exemption  | nn  |                                  |
| REACH SVHC   | No SVHC above 0.1 wt%  |   |                                  |
| System specifications                                  |  |   |                                  |
| Number of males  | 2  | Caldan nin lan ath (I)  | 2.5                              |
| Number of poles  | THT solder connection  | Solder pin length (I)   | 3.5 mm                           |
| Mounting onto the PCB Side termination, characteristic | closed side  | Pitch in inches (P)   | 0.197 "                          |
| Transmission rate                                      | 10 / 100 Mbps  | Solder eyelet hole diameter tolerance (D)+ 0,1 mm  Number of solder pins per pole 2 |                                  |
| Solder eyelet hole diameter (D)                        | 1.1 mm   | Product family  | OMNIMATE Signal - serie          |
|  |  | <u> </u>  | LMF                              |
| Pitch in mm (P)  | 5.00 mm  | Protection degree   | IP20                             |
| Performance-Category                                   | 10 / 100 Mbps  | Soldering process   | Manual soldering, Wave soldering |
| Solder pin dimensions                                  | d = 0.8 mm, 0.6 x 0.8 mm   | Tolerance of solder pin position  | ± 0.1 mm                         |
| Material data  |  |   |                                  |
| Insulating material                                    | Wemid (PA)   | Colour  | orange, coloured                 |
| Colour chart (similar)                                 | RAL 2000, -  | Comparative Tracking Index (CTI)  | ≥ 600                            |
| Moisture Level (MSL)                                   | · · · · · · · · · · · · · · · · · · ·  | 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                   | 46 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  | Вох  | VPE length  | 349.00 mm                        |
| VPE width  | 140.00 mm  | VPE height  | 33.00 mm                         |
| Type tests   |  |   |                                  |
| Test: Durahility of markings                           | Cton double  |   | 1 / 01 03                        |
| Test: Durability of markings                           | Standard DIN EN 60512-1-1 / 01.03  Test mark of origin, type identification, pitch, approval |   |                                  |
|  | 1031   | marking UL, durak   |                                  |
|  | Evaluation   |   |                                  |

Catalogue status / Drawings 2

available

Evaluation





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| Test: Clampable cross section    | Standard          | Standard DIN EN 60999-1 section 7 and 9.1 / 12.0 EN 60947-1 section 8.2.4.5.1 / 12.02 |    |  |
|----------------------------------|-------------------|---|----|--|
|                                  | Conductor type    | Type of conductor solid 0.14 mm <sup>2</sup> and conductor cross-section              |    |  |
|                                  |                   | Type of conductor stranded 0.14 mr and conductor cross-section                        | n² |  |
|                                  |                   | Type of conductor solid 1.5 mm <sup>2</sup> and conductor cross-section               |    |  |
|                                  |                   | Type of conductor stranded 1.5 mm and conductor cross-section                         | 2  |  |
|                                  |                   | Type of conductor AWG 24/1 and conductor cross-section                                |    |  |
|                                  |                   | Type of conductor AWG 24/19 and conductor cross-section                               |    |  |
|                                  |                   | Type of conductor AWG 16/1 and conductor cross-section                                |    |  |
|                                  |                   | Type of conductor AWG 16/19 and conductor cross-section                               |    |  |
|                                  | Evaluation        | passed  |    |  |
| est for damage to and accidental | Standard          | DIN EN 60999-1 section 9.4 / 12.00  |    |  |
| osening of conductors            | Requirement       | 0.2 kg  |    |  |
|                                  | Conductor type    | Type of conductor AWG 24/1 and conductor cross-section                                |    |  |
|                                  |                   | Type of conductor AWG 24/19 and conductor cross-section                               |    |  |
|                                  | Evaluation passed |   |    |  |
|                                  | Requirement       | 0.3 kg  |    |  |
|                                  | Conductor type    | Type of conductor stranded 0.25 mr<br>and conductor cross-<br>section                 | n² |  |
|                                  |                   | Type of conductor solid 0.5 mm <sup>2</sup> and conductor cross-section               |    |  |
|                                  | Evaluation        | passed  |    |  |
|                                  | Requirement       | 0.4 kg  |    |  |
|                                  | Conductor type    | Type of conductor solid 1.5 mm <sup>2</sup> and conductor cross-section               |    |  |
|                                  |                   | Type of conductor stranded 1.5 mm and conductor cross-section                         | 2  |  |
|                                  |                   | Type of conductor AWG 16/1 and conductor cross-section                                |    |  |
|                                  |                   | Type of conductor AWG 16/19 and conductor cross-section                               |    |  |
|                                  | Evaluation        | passed  |    |  |
| Pull-out test                    | Standard          | DIN EN 60999-1 section 9.5 / 12.00  |    |  |
|                                  | Requirement       | ≥10 N   |    |  |
|                                  | Conductor type    | Type of conductor AWG 24/1 and conductor cross- section                               |    |  |





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|                | Type of conductor and conductor cross-section | AWG 24/19                     |  |
|----------------|---|-------------------------------|--|
| Evaluation     | passed  |                               |  |
| Requirement    | ≥20 N   |                               |  |
| Conductor type | Type of conductor and conductor cross-section | stranded 0.25 mm <sup>2</sup> |  |
|                | Type of conductor and conductor cross-section | H05V-K0.5                     |  |
| Evaluation     | passed  |                               |  |
| Requirement    | ≥40 N   |                               |  |
| Conductor type | Type of conductor and conductor cross-section | H07V-U1.5                     |  |
|                | Type of conductor and conductor cross-section | H07V-K1.5                     |  |
|                | Type of conductor and conductor cross-section | AWG 16/1                      |  |
|                | Type of conductor and conductor cross-section | AWG 16/19                     |  |
| 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
- 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.
- $\bullet$  Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months

### Classifications

| ETIM 6.0    | EC002643    | ETIM 7.0    | EC002643    |
|-------------|-------------|-------------|-------------|
| ETIM 8.0    | EC002643    | ETIM 9.0    | EC002643    |
| ETIM 10.0   | 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 | ECLASS 14.0 | 27-46-01-01 |
| ECLASS 15.0 | 27-46-01-01 | <del></del> |             |

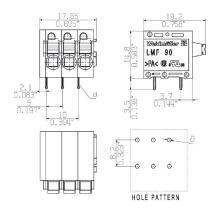


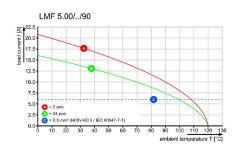
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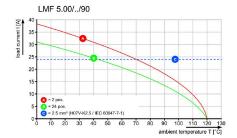
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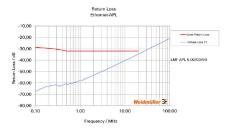
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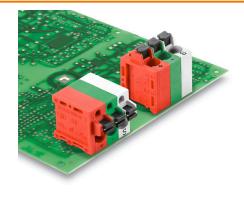
# **Drawings**

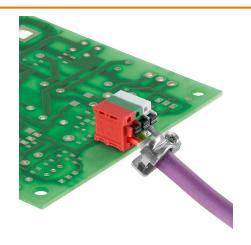














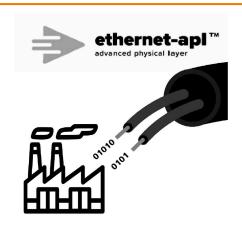
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# **Drawings**







#### Weidmüller Interface GmbH & Co. KG

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## Accessories

#### 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
Order No. 9008390000
GTIN (EAN) 4032248056354

Qty. 1 ST

Version

Screwdriver, Screwdriver

#### **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
Order No. 0310000000
GTIN (EAN) 4008190000059
Oty. 20 ST

Version

PCB plug-in connector, Accessories, Test plug, red, Number of poles:

1

## **Ethernet-APL**



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# **Accessories**

## **General ordering data**

25 ST

Qty.

Type SH ETH U Version

Order No. 2903230000 Shield clamp, Accessories, Screw flange, Number of poles: 1, zinc GTIN (EAN) 4099986575172 plated, Silver grey, Box