

## OMNIMATE Signal - series LMF

### LMF 5.00/04/90 3.5SN OR BX

**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 16

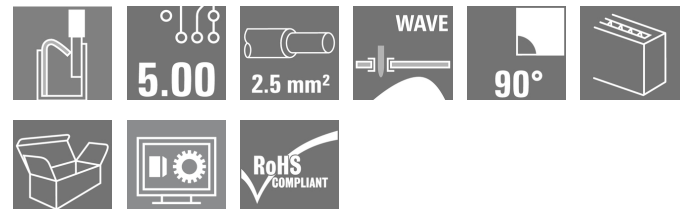
D-32758 Detmold

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The new LMF allows us to meet the current market requirements for a PCB terminal with PUSH IN connection system for wire cross-sections up to 2.5 mm<sup>2</sup>

- PUSH IN connection system
- LMF with pusher for opening the terminal point
- LMFS without pusher, the terminal point is opened with a screwdriver
- Integrated test point
- 90° and 180° wire outlet direction

#### General ordering data

|              |                                                                                                                                                                        |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Type         | LMF 5.00/04/90 3.5SN OR BX                                                                                                                                             |
| Order No.    | <a href="#">1331720000</a>                                                                                                                                             |
| Version      | PCB terminal, 5.00 mm, No. of poles: 4, 90°, Solder pin length (l): 3.5 mm, tinned, Orange, PUSH IN, Clamping range, rated connection, max.: 2.5 mm <sup>2</sup> , Box |
| GTIN (EAN)   | 4050118135626                                                                                                                                                          |
| Qty.         | 70 pc(s).                                                                                                                                                              |
| Product data | IEC: 400 V / 24 A / 0.2 - 2.5 mm <sup>2</sup><br>UL: 300 V / 10 A / AWG 26 - AWG 12                                                                                    |
| Packaging    | Box                                                                                                                                                                    |

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## Technical data

### Dimensions and weights

|            |        |
|------------|--------|
| Net weight | 7.74 g |
|------------|--------|

### System parameters

|                                                    |                              |                                            |            |
|----------------------------------------------------|------------------------------|--------------------------------------------|------------|
| Product family                                     | OMNIMATE Signal - series LMF | Wire connection method                     | PUSH IN    |
| Mounting onto the PCB                              | THT solder connection        | Conductor outlet direction                 | 90°        |
| Pitch in mm (P)                                    | 5 mm                         | Pitch in inches (P)                        | 0.197 inch |
| No. of poles                                       | 4                            | Fitted by customer                         | No         |
| Max. adjacent poles per row                        | 24                           | Solder pin length (l)                      | 3.5 mm     |
| Solder pin dimensions                              | d = 0.8 mm                   | Solder eyelet hole diameter (D)            | 1.1 mm     |
| Solder eyelet hole diameter tolerance (D) + 0,1 mm |                              | Number of solder pins per pole             | 2          |
| Screwdriver blade                                  | 0.6 x 3.5                    | Screwdriver blade standard                 | DIN 5264   |
| Stripping length                                   | 10 mm                        | L1 in mm                                   | 15 mm      |
| L1 in inches                                       | 0.591 inch                   | Touch-safe protection acc. to DIN VDE 0470 | IP 20      |
| Touch-safe protection acc. to DIN VDE 57 106       | Safe from finger touch       |                                            |            |

### Material data

|                                       |                     |                                       |        |
|---------------------------------------|---------------------|---------------------------------------|--------|
| Insulating material                   | Wemid (PA)          | Colour                                | Orange |
| Colour chart (similar)                | RAL 2000            | CTI                                   | ≥ 600  |
| Insulation resistance                 | ≥ 10 <sup>8</sup> Ω | UL 94 flammability rating             | V-0    |
| Contact material                      | CuSn                | Contact surface                       | tinned |
| Coating                               | 4-6 µm SN           | Tinning type                          | matt   |
| Layer structure of solder connection  | 4-6 µm Sn matt      | Storage temperature, min.             | -25 °C |
| Storage temperature, max.             | 55 °C               | Max. relative humidity during storage | 80 %   |
| 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, rated connection, min.          | 0.12 mm <sup>2</sup> | Clamping range, rated connection, max.          | 2.5 mm <sup>2</sup> |
| Wire connection cross section AWG, min.         | AWG 26               | Wire connection cross section AWG, max.         | AWG 12              |
| Solid, min. H05(07) V-U                         | 0.2 mm <sup>2</sup>  | Solid, max. H05(07) V-U                         | 2.5 mm <sup>2</sup> |
| Flexible, min. H05(07) V-K                      | 0.2 mm <sup>2</sup>  | Flexible, max. H05(07) V-K                      | 2.5 mm <sup>2</sup> |
| w. plastic collar ferrule, DIN 46228 pt 4, min. | 0.25 mm <sup>2</sup> | w. plastic collar ferrule, DIN 46228 pt 4, max. | 2.5 mm <sup>2</sup> |
| w. wire end ferrule, DIN 46228 pt 1, min.       | 0.25 mm <sup>2</sup> | w. wire end ferrule, DIN 46228 pt 1, max.       | 2.5 mm <sup>2</sup> |
| Plug gauge acc. to EN 60999 a x b; Ø            | 2.4 mm x 1.5 mm      |                                                 |                     |

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## Technical data

### Rated data acc. to IEC

|                                                                           |                        |                                                                       |                   |
|---------------------------------------------------------------------------|------------------------|-----------------------------------------------------------------------|-------------------|
| tested acc. to standard                                                   | IEC 60664-1, IEC 61984 | Rated current, min. no. of poles (Ta = 20°C)                          | 24 A              |
| Rated current, max. no. of poles (Ta = 20°C)                              | 24 A                   | Rated current, min. no. of poles (Ta = 40°C)                          | 24 A              |
| Rated current, max. no. of poles (Ta = 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

|                               |                                                                                   |                               |               |
|-------------------------------|-----------------------------------------------------------------------------------|-------------------------------|---------------|
| Institute (CSA)               |  | Certificate No. (CSA)         | 20039-1815154 |
| Rated voltage (Use group B)   | 300 V                                                                             | Rated voltage (Use group C)   | 50 V          |
| Rated voltage (use group D)   | 300 V                                                                             | Rated current (use group B)   | 10 A          |
| Rated current (use group C)   | 10 A                                                                              | Rated current (use group D)   | 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.            |                               |               |

### Rated data acc. to UL 1059

|                               |                                                                                     |                               |        |
|-------------------------------|-------------------------------------------------------------------------------------|-------------------------------|--------|
| Institute (cURus)             |  | Certificate No. (cURus)       | E60693 |
| Rated voltage (use group B)   | 300 V                                                                               | Rated voltage (use group C)   | 50 V   |
| Rated voltage (use group D)   | 300 V                                                                               | Rated current (use group B)   | 10 A   |
| Rated current (use group C)   | 10 A                                                                                | Rated current (use group D)   | 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.              |                               |        |

### Classifications

|            |             |            |             |
|------------|-------------|------------|-------------|
| ETIM 3.0   | EC001284    | ETIM 4.0   | EC002643    |
| ETIM 5.0   | EC002643    | ETIM 6.0   | EC002643    |
| eClass 6.2 | 27-26-11-01 | eClass 7.1 | 27-44-04-01 |
| eClass 8.1 | 27-44-04-01 | eClass 9.0 | 27-44-04-01 |
| eClass 9.1 | 27-44-04-01 |            |             |

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## Technical data

### Notes

#### Notes

- 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.
- The test point can only be used as potential-pickup point.

#### IPC conformity

The products are developed, manufactured and delivered according to the internationally recognised IPC-A-610 standard, category "permissible". More extensive demands on the products can be evaluated on request.

### Approvals

#### Approvals



#### ROHS

Conform

### Downloads

#### Approval/Certificate/Document of Conformity

[Declaration of the Manufacturer](#)

#### Brochure/Catalogue

[FL DRIVES EN](#)  
[FL ANALO.SIGN.CONV. EN](#)  
[MB DEVICE MANUF. EN](#)  
[FL DRIVES DE](#)  
[CAT 2 PORTFOLIOGUIDE EN](#)  
[FL BUILDING SAFETY EN](#)  
[FL APPL LED LIGHTING EN](#)  
[FL INDUSTR.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](#)

#### Engineering Data

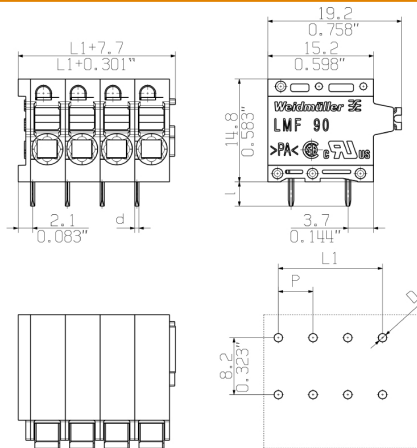
[EPLAN, WSCAD](#)

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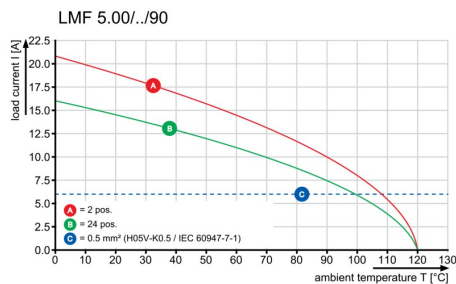
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## Drawings

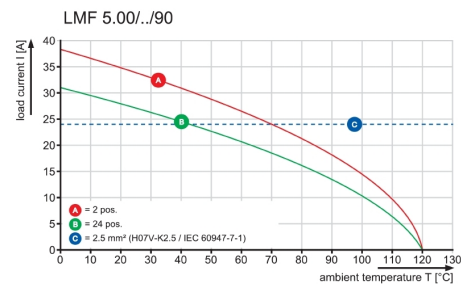
### Dimensional drawing



### Graph



### Graph



## Recommended wave soldering profiles

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### 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.