

## LMF 5.08/03/90 3.5SN BK BX

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

www.weidmueller.com

### Product image



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

|              |  |
|--------------|--|
| Version      | Printed circuit board terminals, 5.08 mm, Number of poles: 3, 90°, Solder pin length (l): 3.5 mm, tinned, black, PUSH IN with actuator, Clamping range, max. : 2.5 mm <sup>2</sup> , Box |
| Order No.    | <a href="#">1425820000</a>   |
| Type         | LMF 5.08/03/90 3.5SN BK BX   |
| GTIN (EAN)   | 4050118229813  |
| 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    | Box  |

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## Technical data

## Approvals

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

## 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           | 17.86 mm    |
| Width (inches)           | 0.7031 inch | Net weight      | 4.64 g      |

## Environmental Product Compliance

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

## System parameters

|  |                              |  |                       |
|--|------------------------------|--|-----------------------|
| Product family                               | OMNIMATE Signal - series LMF | Wire connection method                     | PUSH IN with actuator |
| Mounting onto the PCB                        | THT solder connection        | Conductor outlet direction                 | 90°                   |
| Pitch in mm (P)                              | 5.08 mm                      | Pitch in inches (P)                        | 0.200 "               |
| Number of poles                              | 3                            | Pin series quantity                        | 2                     |
| Fitted by customer                           | No                           | Number of rows                             | 1                     |
| Max. adjacent poles per row                  | 24                           | Solder pin length (l)                      | 3.5 mm                |
| Solder pin dimensions                        | d = 0.8 mm, 0.6 x 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                                   | 10.16 mm              |
| L1 in inches                                 | 0.400 "                      | Touch-safe protection acc. to DIN VDE 0470 | IP 20                 |
| Touch-safe protection acc. to DIN VDE 57 106 | Safe from finger touch       | Protection degree                          | IP20                  |

## Material data

|                                       |            |                                       |                         |
|---------------------------------------|------------|---------------------------------------|-------------------------|
| Insulating material                   | Wemid (PA) | Colour                                | black                   |
| Colour of operational elements        | orange     | Colour chart (similar)                | RAL 9011                |
| 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  | 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 <sup>2</sup> |
| Clamping range, max.                    | 2.5 mm <sup>2</sup>  |
| 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 <sup>2</sup>  |
| Solid, max. H05(07) V-U                 | 2.5 mm <sup>2</sup>  |
| Flexible, min. H05(07) V-K              | 0.25 mm <sup>2</sup> |
| Flexible, max. H05(07) V-K              | 2.5 mm <sup>2</sup>  |

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w. plastic collar ferrule, DIN 46228 pt 4, 0.25 mm<sup>2</sup>  
 min.

w. plastic collar ferrule, DIN 46228 pt 4, 2.5 mm<sup>2</sup>  
 max.

w. wire end ferrule, DIN 46228 pt 1, 0.25 mm<sup>2</sup>  
 min.

w. wire end ferrule, DIN 46228 pt 1, 2.5 mm<sup>2</sup>  
 max.

Plug gauge in accordance with EN 60999 a x b; ø 2.4 mm x 1.5 mm

|  |  |                              |                            |
|--|--|------------------------------|----------------------------|
| Clampable conductor                    | Cross-section for conductor connection | Type                         | fine-wired                 |
|  |  | nominal                      | 0.5 mm <sup>2</sup>        |
| wire end ferrule                       | wire end ferrule                       | Stripping length             | nominal 12 mm              |
|  |  | Recommended wire-end ferrule | <a href="#">H0.5/16 OR</a> |
|  |  | Stripping length             | nominal 10 mm              |
|  |  | Recommended wire-end ferrule | <a href="#">H0.5/10</a>    |
| Cross-section for conductor connection | Cross-section for conductor connection | Type                         | fine-wired                 |
|  |  | nominal                      | 0.75 mm <sup>2</sup>       |
| wire end ferrule                       | wire end ferrule                       | Stripping length             | nominal 12 mm              |
|  |  | Recommended wire-end ferrule | <a href="#">H0.75/16 W</a> |
|  |  | Stripping length             | nominal 10 mm              |
|  |  | Recommended wire-end ferrule | <a href="#">H0.75/10</a>   |
| Cross-section for conductor connection | Cross-section for conductor connection | Type                         | fine-wired                 |
|  |  | nominal                      | 1 mm <sup>2</sup>          |
| wire end ferrule                       | wire end ferrule                       | Stripping length             | nominal 12 mm              |
|  |  | Recommended wire-end ferrule | <a href="#">H1.0/16D R</a> |
|  |  | Stripping length             | nominal 10 mm              |
|  |  | Recommended wire-end ferrule | <a href="#">H1.0/10</a>    |
| Cross-section for conductor connection | Cross-section for conductor connection | Type                         | fine-wired                 |
|  |  | nominal                      | 1.5 mm <sup>2</sup>        |
| wire end ferrule                       | wire end ferrule                       | Stripping length             | nominal 10 mm              |
|  |  | Recommended wire-end ferrule | <a href="#">H1.5/10</a>    |
|  |  | Stripping length             | nominal 12 mm              |
|  |  | Recommended wire-end ferrule | <a href="#">H1.5/16 R</a>  |
| Cross-section for conductor connection | Cross-section for conductor connection | Type                         | fine-wired                 |
|  |  | nominal                      | 2.5 mm <sup>2</sup>        |
| wire end ferrule                       | wire end ferrule                       | Stripping length             | nominal 10 mm              |
|  |  | Recommended wire-end ferrule | <a href="#">H2.5/10</a>    |

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 |

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**Technical data**

Rated impulse voltage for surge voltage class/ pollution degree II/2 4 kV  
 Rated impulse voltage for surge voltage class/ contamination degree III/3 4 kV

Rated impulse voltage for surge voltage class/ pollution degree III/2 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 |

**Rated data acc. to UL 1059**

|                                       |        |                                       |        |
|---------------------------------------|--------|---------------------------------------|--------|
| 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 |

**Packing**

|           |           |            |           |
|-----------|-----------|------------|-----------|
| Packaging | Box       | VPE length | 350.00 mm |
| VPE width | 144.00 mm | VPE height | 33.00 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 conductor cross-section   | solid 0,12 mm <sup>2</sup>    |  |
|   |                | Type of conductor and conductor cross-section   | flexible 0,12 mm <sup>2</sup> |  |
|   |                | Type of conductor and conductor cross-section   | solid 2.5 mm <sup>2</sup>     |  |
|   |                | Type of conductor and conductor cross-section   | stranded 2.5 mm <sup>2</sup>  |  |
|   |                | Type of conductor and conductor cross-section   | AWG 26/1                      |  |
|   |                | Type of conductor and conductor cross-section   | AWG 26/19                     |  |
|   |                | Type of conductor and conductor cross-section   | AWG 14/1                      |  |
|   |                | Type of conductor and conductor cross-section   | AWG 12/19                     |  |
|   | Evaluation     | passed  |                               |  |
| 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 conductor cross-section   | stranded 0.25 mm <sup>2</sup> |  |

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|                |   |                               |
|----------------|---|-------------------------------|
|                | Type of conductor and conductor cross-section | AWG 26/1                      |
|                | Type of conductor and conductor cross-section | AWG26/19                      |
| Evaluation     | passed  |                               |
| Requirement    | 0.3 kg  |                               |
| 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    | 0.7 kg  |                               |
| Conductor type | Type of conductor and conductor cross-section | H07V-U2.5                     |
|                | Type of conductor and conductor cross-section | H07V-K2.5                     |
|                | Type of conductor and conductor cross-section | AWG 14/1                      |
| Evaluation     | passed  |                               |
| Requirement    | 0.9 kg  |                               |
| Conductor type | Type of conductor and conductor cross-section | AWG 12/19                     |
|                |   |                               |
| Evaluation     | passed  |                               |
| Standard       | IEC 60999-1 section 9.5 / 11.99               |                               |
| Requirement    | ≥10 N   |                               |
| Conductor type | Type of conductor and conductor cross-section | AWG 26/1                      |
|                | Type of conductor and conductor cross-section | AWG 26/19                     |
| Evaluation     | passed  |                               |
| Requirement    | ≥15 N   |                               |
| Conductor type | Type of conductor and conductor cross-section | stranded 0.25 mm <sup>2</sup> |
| 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    | ≥50 N   |                               |
| Conductor type | Type of conductor and conductor cross-section | H07V-U2.5                     |
|                | Type of conductor and conductor cross-section | H07V-K2.5                     |
|                | Type of conductor and conductor cross-section | AWG 14/1                      |

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|                |   |
|----------------|---|
| Evaluation     | passed  |
| Requirement    | ≥60 N   |
| Conductor type | Type of conductor and conductor cross-section AWG 12/19 |
| 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          | <ul style="list-style-type: none"> <li>• Additional variants on request</li> <li>• Rated current related to rated cross-section &amp; min. No. of poles.</li> <li>• Wire end ferrule without plastic collar to DIN 46228/1</li> <li>• Wire end ferrule with plastic collar to DIN 46228/4</li> <li>• P on drawing = pitch</li> <li>• 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.</li> <li>• The test point can only be used as potential-pickup point.</li> <li>• Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months</li> </ul> |

### 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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Drawings

Product image



Dimensional drawing



Graph



Graph



**Drawings**

**Product benefits**



Optional conductor outlet  
directionStable mechanical design

**Product benefits**



High reliability of the current capacity

**Product benefits**



Direct conductor entryCross section up to 2.5 mm<sup>2</sup>

**Product benefits**



Maintenance through test point