

## LMF 7.50/03/90 3.5SN OR BX

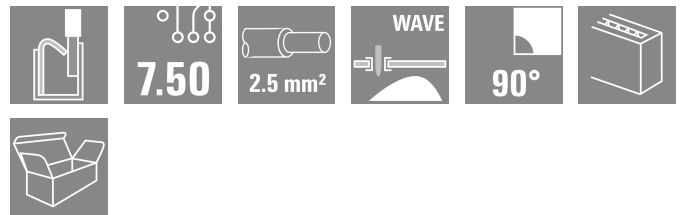
Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com



The innovative quick connector - simple, safe and economical:

PCB terminals with spring connection and direct PUSH IN technology. A milestone in connection technology.

Amazingly simple and simply amazing in practice:

- Connect and easily detach solid wires or wires with wire-end ferrules without using tools
- Processed automatically in the reflow or vapour phase
- Potentials and clamping points marked clearly by coloured push buttons

World-class design-in and processing phases, and suitable for a vast range of applications.

### General ordering data

|              |  |
|--------------|--|
| Version      | Printed circuit board terminals, 7.50 mm, Number of poles: 3, 90°, Solder pin length (l): 3.5 mm, tinned, orange, PUSH IN with push button, Clamping range, max. : 2.5 mm <sup>2</sup> , Box |
| Order No.    | <a href="#">2667920000</a>   |
| Type         | LMF 7.50/03/90 3.5SN OR BX   |
| GTIN (EAN)   | 4050118804539  |
| Qty.         | 65 items   |
| Product data | IEC: 1000 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

Approvals



|                         |                            |
|-------------------------|----------------------------|
| ROHS                    | Conform                    |
| UL File Number Search   | <a href="#">UL Website</a> |
| 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           | 22.7 mm     |
| Width (inches)           | 0.8937 inch | Net weight      | 5.27 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 push button |
| Mounting onto the PCB                      | THT solder connection        | Conductor outlet direction                   | 90°                      |
| Pitch in mm (P)                            | 7.50 mm                      | Pitch in inches (P)                          | 0.295 "                  |
| Number of poles                            | 3                            | Pin series quantity                          | 1                        |
| Number of rows                             | 1                            | 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                                     | 15.00 mm                 |
| 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                                | orange    |
| Colour of operational elements        | black      | 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                          | mat        | 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.       |
| 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 60947-7-4 | 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         | 1000 V            |
| Rated voltage for surge voltage class / pollution degree III/2            | 600 V                      | Rated voltage for surge voltage class / pollution degree III/3        | 500 V             |
| Rated impulse voltage for surge voltage class/ pollution degree II/2      | 6 kV                       | Rated impulse voltage for surge voltage class/ pollution degree III/2 | 6 kV              |
| Rated impulse voltage for surge voltage class/ contamination degree III/3 | 6 kV                       | Short-time withstand current resistance                               | 3 x 1s with 120 A |

### Rated data acc. to CSA

|                                   |  |                                   |                |
|-----------------------------------|--|-----------------------------------|----------------|
| Institute (CSA)                   | CSA  | Certificate No. (CSA)             | 200039-1815154 |
| 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         |
| Reference to approval values      | Specifications are maximum values, details - see approval certificate. |                                   |                |

### Rated data acc. to UL 1059

|                                       |  |                                       |        |
|---------------------------------------|--|---------------------------------------|--------|
| Institute (cURus)                     | 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 | 350.00 mm |
| VPE width | 139.00 mm | VPE height | 34.00 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, approval marking UL, approval marking CSA, durability |                           |
|                               | Evaluation     | available  |                           |
| Test: Clampable cross section | Conductor type | Type of conductor and conductor cross-section  | solid 0.2 mm <sup>2</sup> |

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**Technical data**

|   |   |   |   |
|---|---|---|---|
|   |   | Type of conductor and conductor cross-section | solid 2.5 mm <sup>2</sup>                     |
|   |   | Type of conductor and conductor cross-section | stranded 0.2 mm <sup>2</sup>                  |
|   |   | Type of conductor and conductor cross-section | flexible 4 mm <sup>2</sup>                    |
|   |   | Type of conductor and conductor cross-section | AWG 12/7                                      |
|   |   | Type of conductor and conductor cross-section | AWG 24/11                                     |
|   | 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 | solid 0.2 mm <sup>2</sup>                     |
|   |   | Type of conductor and conductor cross-section | stranded 0.2 mm <sup>2</sup>                  |
|   | Evaluation                                    | passed  |   |
|   | Requirement                                   | 0.7 kg  |   |
|   | Conductor type                                | Type of conductor and conductor cross-section | solid 2.5 mm <sup>2</sup>                     |
|   |   | Evaluation                                    | passed  |
|   | Requirement                                   | 0,9 kg  |   |
|   | Pull-out test                                 | Conductor type                                | Type of conductor and conductor cross-section |
| Evaluation  |   |   | passed  |
| Standard  |   | IEC 60999-1 section 9.5 / 11.99               |   |
| Requirement   |   | ≥10 N   |   |
| Conductor type  |   | Type of conductor and conductor cross-section | solid 0.2 mm <sup>2</sup>                     |
|   |   | Type of conductor and conductor cross-section | stranded 0.2 mm <sup>2</sup>                  |
| Evaluation  |   | passed  |   |
| Requirement   |   | ≥50 N   |   |
| Conductor type  |   | Type of conductor and conductor cross-section | solid 2.5 mm <sup>2</sup>                     |
|   |   | Evaluation                                    | passed  |
| Requirement   | ≥ 60 N  |   |   |
| Conductor type  | Type of conductor and conductor cross-section | flexible 4 mm <sup>2</sup>                    |   |
|   | 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.

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- 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

### 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 |             |             |

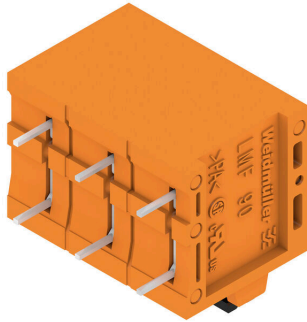
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Drawings

Product image



Dimensional drawing



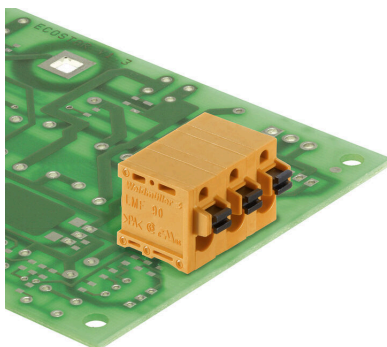
Derating curve



Derating curve



Product benefits



Product benefits



**Product benefits**



**Product benefits**



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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           | Version                  |  |
| Order No.  | <a href="#">9008390000</a> | Screwdriver, Screwdriver |  |
| GTIN (EAN) | 4032248056354              |                          |  |
| Qty.       | 1 ST                       |                          |  |

## 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  |   |
| Order No.  | <a href="#">0310000000</a> | PCB plug-in connector, Accessories, Test plug, red, Number of poles: |   |
| GTIN (EAN) | 4008190000059              |  |   |
| Qty.       | 20 ST                      |  | 1 |