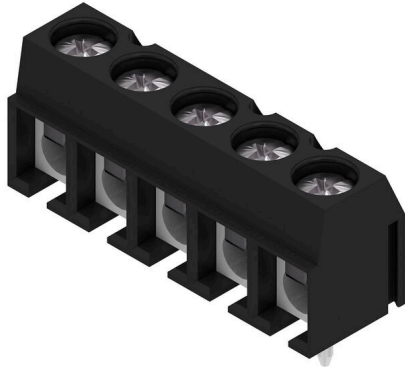


## PM 5.00/05/90 3.5SN BK BX

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

www.weidmueller.com

### Product image



PCB terminal with leaf spring connection at 5.00 and 5.08 mm pitch. Conductor outlet direction 90°. Suitable for conductor cross-sections up to 2.5 mm<sup>2</sup>.

### General ordering data

|              |  |
|--------------|--|
| Version      | Printed circuit board terminals, 5.00 mm, Number of poles: 5, 90° conductor outlet direction, Solder pin length (l): 3.5 mm, tinned, Clamping range, max.: 2.5 mm <sup>2</sup> , Box |
| Order No.    | <a href="#">2681790000</a>   |
| Type         | PM 5.00/05/90 3.5SN BK BX  |
| GTIN (EAN)   | 4050118697230  |
| Qty.         | 100 items  |
| Product data | IEC: 600 V / 24 A / 0.13 - 2.5 mm <sup>2</sup><br>UL: 300 V / 15 A / AWG 26 - AWG 14   |
| Packaging    | Box  |

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## Technical data

## Approvals

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

## Dimensions and weights

|                          |         |                 |             |
|--------------------------|---------|-----------------|-------------|
| Depth                    | 8 mm    | Depth (inches)  | 0.315 inch  |
| Height                   | 13.5 mm | Height (inches) | 0.5315 inch |
| Height of lowest version | 10 mm   | Net weight      | 4.15 g      |

## Temperatures

|                                  |        |
|----------------------------------|--------|
| Continuous operating temp., max. | 120 °C |
|----------------------------------|--------|

## Environmental Product Compliance

|                                      |                                      |
|--------------------------------------|--------------------------------------|
| RoHS Compliance Status               | Compliant with exemption             |
| RoHS Exemption (if applicable/known) | 6c                                   |
| REACH SVHC                           | Lead 7439-92-1                       |
| SCIP                                 | c2abd024-c370-41bc-90fc-5ba34b090103 |

## System parameters

|  |                             |  |  |
|--|-----------------------------|--|--|
| Product family                               | OMNIMATE Signal - series PM | Mounting onto the PCB                      | THT solder connection                          |
| Conductor outlet direction                   | 90\u00b0                    | Pitch in mm (P)                            | 5.00 mm  |
| Pitch in inches (P)                          | 0.197 "                     | Number of poles                            | 5  |
| Pin series quantity                          | 1                           | Fitted by customer                         | Yes  |
| Max. adjacent poles per row                  | 24                          | Solder pin length (l)                      | 3.5 mm   |
| Solder pin dimensions                        | 0.75 x 0.9 mm, 0.8 x 1.0 mm | Solder eyelet hole diameter (D)            | 1.3 mm   |
| Solder eyelet hole diameter tolerance (D)    | + 0,1 mm                    | Number of solder pins per pole             | 1  |
| Screwdriver blade                            | 0.6 x 3.5                   | Screwdriver blade standard                 | DIN 5264                                       |
| Tightening torque, min.                      | 0.4 Nm                      | Tightening torque, max.                    | 0.5 Nm   |
| Clamping screw                               | M 2.5                       | Touch-safe protection acc. to DIN VDE 0470 | IP 20, above the PCB; with conductor connected |
| Touch-safe protection acc. to DIN VDE 57 106 | Safe from finger touch      |  |  |

## Material data

|                             |          |                                      |                                    |
|-----------------------------|----------|--------------------------------------|------------------------------------|
| Insulating material group   | I        | Comparative Tracking Index (CTI)     | ≥ 600                              |
| Contact material            | Cu-alloy | Contact surface                      | tinned                             |
| Tinning type                | matt     | Layer structure of solder connection | 1.5...3.5 µm Ni / 4...6 µm Sn matt |
| Storage temperature, min.   | -40 °C   | Storage temperature, max.            | 70 °C                              |
| Operating temperature, min. | -50 °C   | Operating temperature, max.          | 120 °C                             |

## Conductors suitable for connection

|  |                           |
|--|---------------------------|
| Clamping range, min.                       | 0.13 mm <sup>2</sup>      |
| Clamping range, max.                       | 2.5 mm <sup>2</sup>       |
| Solid, min. H05(07) V-U                    | 0.13 mm <sup>2</sup>      |
| Solid, max. H05(07) V-U                    | 2.5 mm <sup>2</sup>       |
| Flexible, min. H05(07) V-K                 | 0.13 mm <sup>2</sup>      |
| Flexible, max. H05(07) V-K                 | 2.5 mm <sup>2</sup>       |
| w. plastic collar ferrule, DIN 46228 pt 4, | 0.25 mm <sup>2</sup> min. |

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**Technical data**

w. plastic collar ferrule, DIN 46228 pt 4, 1.5 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, 1.5 mm<sup>2</sup> max.

|  |  |                              |                              |
|--|--|------------------------------|------------------------------|
| Clampable conductor                    | Cross-section for conductor connection | Type                         | fine-wired                   |
|  |  | nominal                      | 0.5 mm <sup>2</sup>          |
| wire end ferrule                       | Stripping length                       | nominal                      | 8 mm                         |
|  |  | Recommended wire-end ferrule | <a href="#">H0.5/12 OR</a>   |
|  | Stripping length                       | nominal                      | 6 mm                         |
|  |  | Recommended wire-end ferrule | <a href="#">H0.5/6</a>       |
| Cross-section for conductor connection | Type                                   | fine-wired                   |                              |
|  | nominal                                | 0.75 mm <sup>2</sup>         |                              |
| wire end ferrule                       | Stripping length                       | nominal                      | 8 mm                         |
|  |  | Recommended wire-end ferrule | <a href="#">H0.75/12 W</a>   |
|  | Stripping length                       | nominal                      | 6 mm                         |
|  |  | Recommended wire-end ferrule | <a href="#">H0.75/6</a>      |
| Cross-section for conductor connection | Type                                   | fine-wired                   |                              |
|  | nominal                                | 1 mm <sup>2</sup>            |                              |
| wire end ferrule                       | Stripping length                       | nominal                      | 8 mm                         |
|  |  | Recommended wire-end ferrule | <a href="#">H1.0/12 GE</a>   |
|  | Stripping length                       | nominal                      | 6 mm                         |
|  |  | Recommended wire-end ferrule | <a href="#">H1.0/6</a>       |
| Cross-section for conductor connection | Type                                   | fine-wired                   |                              |
|  | nominal                                | 0.25 mm <sup>2</sup>         |                              |
| wire end ferrule                       | Stripping length                       | nominal                      | 8 mm                         |
|  |  | Recommended wire-end ferrule | <a href="#">H0.25/10 HBL</a> |
|  | Stripping length                       | nominal                      | 5 mm                         |
|  |  | Recommended wire-end ferrule | <a href="#">H0.25/5</a>      |
| Cross-section for conductor connection | Type                                   | fine-wired                   |                              |
|  | nominal                                | 0.34 mm <sup>2</sup>         |                              |
| wire end ferrule                       | Stripping length                       | nominal                      | 8 mm                         |
|  | Recommended wire-end ferrule           | <a href="#">H0.34/10 TK</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         | 600 V             |
| Rated voltage for surge voltage class / pollution degree III/2            | 250 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 |

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**Technical data**

**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) | 15 A   | Rated current (Use group D / CSA) | 10 A   |
| Wire cross-section, AWG, min.     | AWG 26 | Wire cross-section, AWG, max.     | AWG 14 |

**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) | 15 A   | Rated current (Use group D / UL 1059) | 10 A   |
| Wire cross-section, AWG, min.         | AWG 26 | Wire cross-section, AWG, max.         | AWG 14 |

**Packing**

|           |          |            |           |
|-----------|----------|------------|-----------|
| Packaging | Box      | VPE length | 152.00 mm |
| VPE width | 92.00 mm | VPE height | 53.00 mm  |

**Type tests**

|   |                |   |                               |  |
|---|----------------|---|-------------------------------|--|
| Test: Durability of markings                              | Test           | mark of origin, type identification, pitch, type of material, approval marking UL, approval marking CSA, durability |                               |  |
|   | Evaluation     | available   |                               |  |
| Test: Clampable cross section                             | Standard       | DIN EN 60999-1 section 7 and 9.1 / 12.00, DIN EN 60947-1 section 8.2.4.5.1 / 12.02                                  |                               |  |
|   | Conductor type | Type of conductor and conductor cross-section   | solid 0.14 mm <sup>2</sup>    |  |
|   |                | Type of conductor and conductor cross-section   | stranded 0.14 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 14/19                     |  |
|   | Evaluation     | passed  |                               |  |
| Test for damage to and accidental loosening of conductors | Standard       | DIN EN 60999-1 section 9.4 / 12.00  |                               |  |
|   | Requirement    | 0.2 kg  |                               |  |
|   | Conductor type | Type of conductor and conductor cross-section   | stranded 0.25 mm <sup>2</sup> |  |
|   |                | Type of conductor and conductor cross-section   | AWG 26/1                      |  |
| Type of conductor and conductor cross-section             |                | AWG 26/19   |                               |  |

Technical data

|               |                |   |
|---------------|----------------|---|
|               | Evaluation     | passed  |
|               | Requirement    | 0.3 kg  |
|               | Conductor type | Type of conductor and conductor cross-section solid 0.5 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>     |
|               |                | Type of conductor and conductor cross-section stranded 2.5 mm <sup>2</sup>  |
|               |                | Type of conductor and conductor cross-section AWG 14/1                      |
|               |                | Type of conductor and conductor cross-section AWG 14/19                     |
|               | Evaluation     | passed  |
| Pull-out test | Standard       | DIN EN 60999-1 section 9.5 / 12.00  |
|               | Requirement    | ≥10 N   |
|               | Conductor type | Type of conductor and conductor cross-section stranded 0.25 mm <sup>2</sup> |
|               |                | Type of conductor and conductor cross-section AWG 26/1                      |
|               |                | Type of conductor and conductor cross-section AWG 26/19                     |
|               | Evaluation     | passed  |
|               | Requirement    | ≥20 N   |
|               | Conductor type | 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                      |
|               |                | Type of conductor and conductor cross-section AWG 14/19                     |
|               | 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
- 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
  - The data given under CSA relates to a cUL approval - E60693
  - P on drawing = pitch

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## Technical data

- 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.
- 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 |             |             |

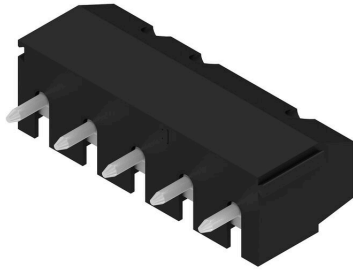
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Drawings

Product image



Dimensional drawing



Graph



Graph

