

**PS 3.50/15/90 3.5SN OR BX****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

**Product image**

Very small and compact PCB terminal with leaf spring connection at 3.5 mm pitch, conductor outlet direction 90°. Suitable for conductor cross-sections up to 1.5 mm<sup>2</sup>.

**General ordering data**

|              |                                                                                                                                                                                                |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Version      | Printed circuit board terminals, 3.50 mm, Number of poles: 15, 90°, Solder pin length (l): 3.5 mm, tinned, orange, Pressure clamp connection, Clamping range, max. : 1.5 mm <sup>2</sup> , Box |
| Order No.    | <a href="#">2428200000</a>                                                                                                                                                                     |
| Type         | PS 3.50/15/90 3.5SN OR BX                                                                                                                                                                      |
| GTIN (EAN)   | 4050118437515                                                                                                                                                                                  |
| Qty.         | 100 pc(s).                                                                                                                                                                                     |
| Product data | IEC: 320 V / 17.5 A / 0.2 - 1.5 mm <sup>2</sup><br>UL: 300 V / 10 A / AWG 28 - AWG 16                                                                                                          |
| Packaging    | Box                                                                                                                                                                                            |

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## Technical data

## Dimensions and weights

|                          |          |                 |            |
|--------------------------|----------|-----------------|------------|
| Depth                    | 6.8 mm   | Depth (inches)  | 0.268 inch |
| Height                   | 11.9 mm  | Height (inches) | 0.469 inch |
| Height of lowest version | 8.4 mm   | Net weight      | 4 g        |
| Width                    | 52.96 mm | Width (inches)  | 2.085 inch |

## Environmental Product Compliance

|            |                |
|------------|----------------|
| REACH SVHC | Lead 7439-92-1 |
|------------|----------------|

## System parameters

|                                              |                        |                                            |                           |
|----------------------------------------------|------------------------|--------------------------------------------|---------------------------|
| Product family                               | PS                     | Wire connection method                     | Pressure clamp connection |
| Mounting onto the PCB                        | THT solder connection  | Conductor outlet direction                 | 90°                       |
| Pitch in mm (P)                              | 3.5 mm                 | Pitch in inches (P)                        | 0.138 inch                |
| Number of poles                              | 15                     | Pin series quantity                        | 1                         |
| Fitted by customer                           | Yes                    | 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)              | 1.3 mm                 | Solder eyelet hole diameter tolerance (D)+ | 0.1 mm                    |
| Number of solder pins per pole               | 1                      | Screwdriver blade                          | 0.4 x 2.5                 |
| Screwdriver blade standard                   | DIN 5264               | Tightening torque, min.                    | 0.2 Nm                    |
| Tightening torque, max.                      | 0.25 Nm                | Clamping screw                             | M 2                       |
| Stripping length                             | 4 mm                   | L1 in mm                                   | 49 mm                     |
| L1 in inches                                 | 1.932 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             | Insulating material group             | I                           |
| Comparative Tracking Index (CTI)      | ≥ 600                | UL 94 flammability rating             | V-0                         |
| Contact material                      | Copper alloy         | Contact surface                       | tinned                      |
| Coating                               | 1-3 µm Ni, 4-6 µm SN | Layer structure of solder connection  | 1.5...3 µm Ni / 4...6 µm Sn |
| 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.                            | 0.08 mm <sup>2</sup>                                                                                                                                                   | Clamping range, max.                            | 1.5 mm <sup>2</sup>  |
| Wire connection cross section AWG, min.         | AWG 28                                                                                                                                                                 | Wire connection cross section AWG, max.         | AWG 16               |
| Solid, min. H05(07) V-U                         | 0.2 mm <sup>2</sup>                                                                                                                                                    | Solid, max. H05(07) V-U                         | 1.5 mm <sup>2</sup>  |
| Flexible, min. H05(07) V-K                      | 0.2 mm <sup>2</sup>                                                                                                                                                    | Flexible, max. H05(07) V-K                      | 1.5 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. | 0.75 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.       | 0.75 mm <sup>2</sup> |
| 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) |                                                 |                      |

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## Rated data acc. to IEC

|                                                                           |                        |                                                                       |        |
|---------------------------------------------------------------------------|------------------------|-----------------------------------------------------------------------|--------|
| tested acc. to standard                                                   | IEC 60664-1, IEC 61984 | Rated current, min. number of poles (Tu=20°C)                         | 17.5 A |
| Rated current, max. number of poles (Tu=20°C)                             | 17.5 A                 | Rated current, min. number of poles (Tu=40°C)                         | 17.5 A |
| Rated current, max. number of poles (Tu=40°C)                             | 17.5 A                 | Rated voltage for surge voltage class / pollution degree II/2         | 320 V  |
| Rated voltage for surge voltage class / pollution degree III/2            | 160 V                  | Rated voltage for surge voltage class / pollution degree III/3        | 160 V  |
| Rated impulse voltage for surge voltage class/ pollution degree II/2      | 2.5 kV                 | Rated impulse voltage for surge voltage class/ pollution degree III/2 | 2.5 kV |
| Rated impulse voltage for surge voltage class/ contamination degree III/3 | 2.5 kV                 |                                                                       |        |

## Rated data acc. to CSA

|                                   |        |                                   |        |
|-----------------------------------|--------|-----------------------------------|--------|
| Rated voltage (Use group B / CSA) | 300 V  | Rated current (Use group B / CSA) | 10 A   |
| Wire cross-section, AWG, min.     | AWG 28 | Wire cross-section, AWG, max.     | AWG 16 |

## 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) | 10 A   | Rated current (Use group D / UL 1059) | 10 A   |
| Wire cross-section, AWG, min.         | AWG 28 | Wire cross-section, AWG, max.         | AWG 16 |

## Packing

|           |     |            |   |
|-----------|-----|------------|---|
| Packaging | Box | VPE length | 0 |
| VPE width | 0   | VPE height | 0 |

## Classifications

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 6.0    | EC002643    | ETIM 7.0    | 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 |

## 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>Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months</li> </ul>                                                                                                                                                                   |

## Approvals

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

## Downloads

|                  |                       |
|------------------|-----------------------|
| Engineering Data | <a href="#">EPLAN</a> |
|------------------|-----------------------|

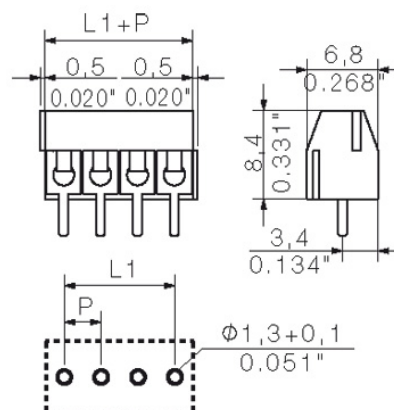
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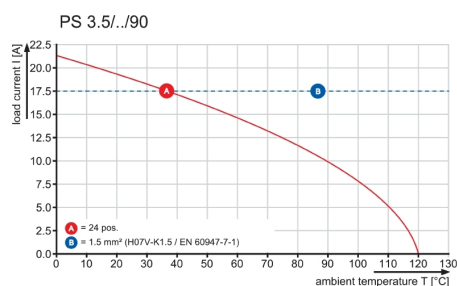
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# Drawings

## Dimensional drawing



## 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.