

**OMNIMATE basic – Series CH
CH 3.81/02/90G 3.5SN GN BX**

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany
Fon: +49 5231 14-0
Fax: +49 5231 14-292083
www.weidmueller.com

**General ordering data**

| | |
|--------------|-------------------------------------|
| Type | CH 3.81/02/90G 3.5SN GN BX |
| Order No. | 2643420000 |
| GTIN (EAN) | 4050118643558 |
| Qty. | 700 pc(s). |
| Product data | IEC: 320 V / 8 A UL: 300 V / 8 A |
| Packaging | Box |

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Technical data
Dimensions and weights

Net weight 0.56 g

System specifications

| Product family | OMNIMATE basic – Series CH | Type of connection | Board connection |
|-----------------------|----------------------------|----------------------------------|------------------|
| Mounting onto the PCB | THT solder connection | Pitch in mm (P) | 3.81 mm |
| Pitch in inches (P) | 0.15 inch | Outgoing elbow | 90° |
| Number of poles | 2 | Number of solder pins per pole | 1 |
| Solder pin length (l) | 3.5 mm | Tolerance of solder pin position | ± 0.1 mm |
| Solder pin dimensions | 0.8 x 0.8 mm | Solder eyelet hole diameter (D) | 1.3 mm |
| L1 in mm | 3.81 mm | L1 in inches | 0.15 inch |
| Number of rows | 1 | Pin series quantity | 1 |
| Plugging cycles | 150 | | |

System Parameters

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|---------------------|----------------------------|---------------------|------------------|
| Pitch in mm (P) | 3.81 mm | Pitch in inches (P) | 0.15 inch |
| Number of poles | 2 | L1 in mm | 3.81 mm |
| L1 in inches | 0.15 inch | Number of rows | 1 |
| Pin series quantity | 1 | Plugging cycles | 150 |

Material data

| | | | |
|-----------------------------|--------------|-----------------------------|--------------|
| Insulating material | PA GF | Colour | Pale green |
| Colour chart (similar) | RAL 6021 | Insulating material group | I |
| Insulation strength | 500 MΩ | UL 94 flammability rating | V-0 |
| Contact base material | Copper alloy | Contact material | Copper alloy |
| Contact surface | tinned | Tinning type | matt |
| Operating temperature, min. | -40 °C | Operating temperature, max. | 105 °C |

Rated data acc. to IEC

| | | | |
|---|--------|---|--------|
| Rated current, min. number of poles (Tu=20°C) | 8 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) | 8 A |
|-----------------------------------|-------|-----------------------------------|-----|

Data sheet

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Technical data

Rated data acc. to UL 1059

| | | | |
|---------------------------------------|---|---------------------------------------|--------|
| Institute (cURus) |  | Certificate No. (cURus) | E60693 |
| Rated voltage (Use group B / UL 1059) | 300 V | Rated current (Use group B / UL 1059) | 8 A |
| Reference to approval values | Specifications are maximum values, details - see approval certificate. | | |

Packing

| | | | |
|-----------|--------|------------|--------|
| Packaging | Box | VPE length | 170 mm |
| VPE width | 130 mm | VPE height | 50 mm |

Classifications

| | | | |
|-------------|-------------|------------|-------------|
| ETIM 6.0 | EC002637 | ETIM 7.0 | EC002637 |
| eClass 9.0 | 27-44-04-02 | eClass 9.1 | 27-44-04-02 |
| eClass 10.0 | 27-44-04-02 | | |

Notes

- Notes
- Only compatible with OMNIMATE basic products
 - P on drawing = pitch
 - Rated current related to rated cross-section & min. No. of poles.
 - 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.

Approvals

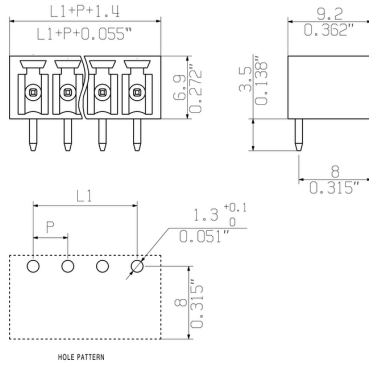
| | |
|-----------|---|
| Approvals |  |
| ROHS | Conform |

Data sheet

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Drawings



Recommended wave soldering profiles

Weidmüller Interface GmbH & Co. KG
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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.