

CH 3.81/12/90G 3.5SN GN BX

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

www.weidmueller.com

**General ordering data**

| | |
|--------------|-------------------------------------|
| Order No. | 2643520000 |
| Type | CH 3.81/12/90G 3.5SN GN BX |
| GTIN (EAN) | 4050118643459 |
| Qty. | 234 pc(s). |
| Product data | IEC: 320 V / 8 A UL: 300 V / 8 A |
| Packaging | Box |

Creation date April 16, 2021 6:16:59 AM CEST

Catalogue status 09.04.2021 / We reserve the right to make technical changes.

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Technical data

Dimensions and weights

| | |
|------------|--------|
| Net weight | 3.36 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 | 12 | Number of solder pins per pole | 1 |
| Solder pin length (l) | 3.5 mm | Solder pin dimensions | 0.8 x 0.8 mm |
| Solder eyelet hole diameter (D) | 1.3 mm | L1 in mm | 41.91 mm |
| L1 in inches | 1.65 inch | Number of rows | 1 |
| Pin series quantity | 1 | | |

Material data

| | | | |
|-----------------------------|--------------|-----------------------------|--------------|
| Insulating material | PA GF | Colour | Pale green |
| Colour chart (similar) | RAL 6021 | Insulating material group | I |
| UL 94 flammability rating | V-0 | Contact base material | Copper alloy |
| Contact material | Copper alloy | Contact surface | tinned |
| Tinning type | matt | Storage temperature, min. | -40 °C |
| Storage temperature, max. | 70 °C | 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 |
|-----------------------------------|-------|-----------------------------------|-----|

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 | 0 |
| VPE width | 0 | VPE height | 0 |

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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 | ECLASS 11.0 | 27-46-02-01 |

Important note

- 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.
 - Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months

Approvals

Approvals



| | |
|-----------------------|---------|
| ROHS | Conform |
| UL File Number Search | E60693 |

Downloads

Brochure/Catalogue [Catalogues in PDF-format](#)

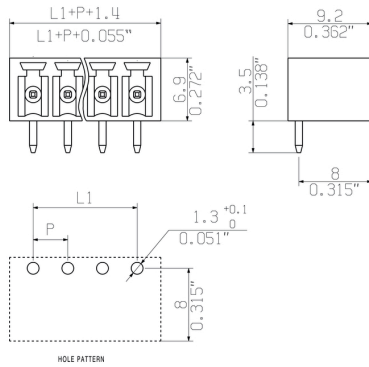
Data sheet

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Drawings



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.