

**CH 3.81/13/180F 3.5SN GN BX****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)**General ordering data**

|              |                                     |
|--------------|-------------------------------------|
| Order No.    | <a href="#">2643340000</a>          |
| Type         | CH 3.81/13/180F 3.5SN GN BX         |
| GTIN (EAN)   | 4050118643633                       |
| Qty.         | 192 pc(s).                          |
| Product data | IEC: 320 V / 8 A<br>UL: 300 V / 8 A |
| Packaging    | Box                                 |

Creation date April 16, 2021 6:15:34 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 | 4.44 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                 | 180°             |
| Number of poles                 | 13                         | 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                       | 45.72 mm         |
| L1 in inches                    | 1.8 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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|             |             |             |             |
|-------------|-------------|-------------|-------------|
| 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**

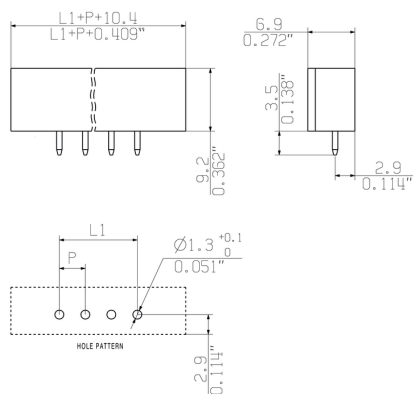
|                    |                                          |
|--------------------|------------------------------------------|
| Brochure/Catalogue | <a href="#">Catalogues in PDF-format</a> |
|--------------------|------------------------------------------|

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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.

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