

**CH 3.81/12/180F 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="#">2643330000</a>          |
| Type         | CH 3.81/12/180F 3.5SN GN BX         |
| GTIN (EAN)   | 4050118643640                       |
| Qty.         | 192 pc(s).                          |
| Product data | IEC: 320 V / 8 A<br>UL: 300 V / 8 A |
| Packaging    | Box                                 |

## CH 3.81/12/180F 3.5SN GN BX

Weidmüller Interface GmbH &amp; Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

## Technical data

## Dimensions and weights

|            |        |
|------------|--------|
| Net weight | 4.16 g |
|------------|--------|

## System specifications

|                                 |                                     |                                |                  |
|---------------------------------|-------------------------------------|--------------------------------|------------------|
| Product family                  | OMNIMATE Signal - series BL/SL 5.08 | 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 "                              | Outgoing elbow                 | 180°             |
| 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 "                              | 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       | Cu-alloy   |
| Contact material            | Cu-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 mm |
| VPE width | 0 mm | VPE height | 0 mm |

Creation date May 11, 2025 9:47:54 PM CEST

## CH 3.81/12/180F 3.5SN GN BX

Weidmüller Interface GmbH &amp; Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

## Technical data

## Classifications

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 6.0    | EC002637    | ETIM 7.0    | EC002637    |
| ETIM 8.0    | EC002637    | ETIM 9.0    | EC002637    |
| ETIM 10.0   | 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 | ECLASS 12.0 | 27-46-02-01 |
| ECLASS 13.0 | 27-46-02-01 | ECLASS 14.0 | 27-46-02-01 |
| ECLASS 15.0 | 27-46-02-01 |             |             |

## Environmental Product Compliance

|                                      |                                      |
|--------------------------------------|--------------------------------------|
| RoHS Compliance Status               | Compliant with exemption             |
| RoHS Exemption (if applicable/known) | 6c                                   |
| REACH SVHC                           | Lead 7439-92-1                       |
| SCIP                                 | 2f5e7231-4ad1-4dcb-8e0f-b14defbd9d78 |

## 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.
- In accordance with IEC 61984, OMNIMATE-connectors are connectors without breaking capacity (COC). During designated use, connectors are not allowed to be engaged or disengaged when live or under load
- Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months

## Approvals

## Approvals



|                         |                                                                                                                                                                             |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Approvals MAMID         | <a href="https://mdcop.weidmueller.com/mediadelivery/rendition/900_319230/-T1z1mm-S800/">https://mdcop.weidmueller.com/mediadelivery/rendition/900_319230/-T1z1mm-S800/</a> |
| ROHS                    | Conform                                                                                                                                                                     |
| UL File Number Search   | UL Website                                                                                                                                                                  |
| Certificate No. (cURus) | E60693                                                                                                                                                                      |

## Downloads

## Catalogues

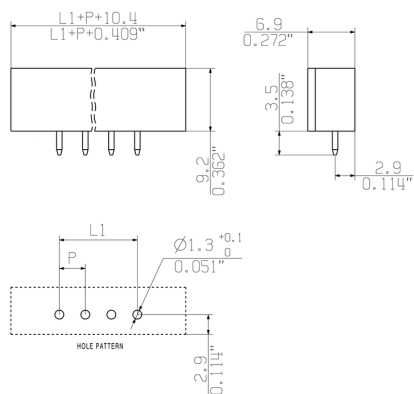
[Catalogues in PDF-format](#)

**CH 3.81/12/180F 3.5SN GN BX****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)**Drawings**

## Recommended wave soldering profiles

**Weidmüller Interface GmbH & Co. KG**  
Klingenbergstraße 16  
D-32758 Detmold  
Germany  
Fon: +49 5231 14-0  
Fax: +49 5231 14-292083  
[www.weidmueller.com](http://www.weidmueller.com)

### 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.