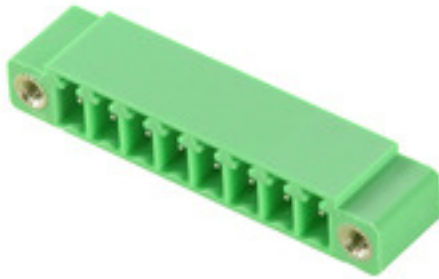


## CH 3.81/06/90F 3.5SN GN BX

**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="#">2643080000</a>
Type	CH 3.81/06/90F 3.5SN GN BX
GTIN (EAN)	4050118643893
Qty.	312 pc(s).
Product data	IEC: 320 V / 8 A UL: 300 V / 8 A
Packaging	Box

Creation date December 4, 2023 11:01:57 AM CET

Catalogue status 24.11.2023 / We reserve the right to make technical changes.

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## Technical data

## Dimensions and weights

Net weight	2.362 g
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## 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	6	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	19.05 mm
L1 in inches	0.75 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	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
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## 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	169 mm
VPE width	134 mm	VPE height	51 mm

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## CH 3.81/06/90F 3.5SN GN BX

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## Technical data

## Classifications

ETIM 6.0	EC002637	ETIM 7.0	EC002637
ETIM 8.0	EC002637	ETIM 9.0	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	27460201

## Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
SCIP	2f5e7231-4ad1-4dcb-8e0f-b14defbd9d78

## Important note

Notes	<ul style="list-style-type: none"> <li>• Only compatible with OMNIMATE basic products</li> <li>• P on drawing = pitch</li> <li>• Rated current related to rated cross-section &amp; min. No. of poles.</li> <li>• 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.</li> <li>• 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</li> <li>• Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months</li> </ul>
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## Approvals

Approvals	
ROHS	Conform
UL File Number Search	UL Website
Certificate No. (cURus)	E60693

## Downloads

Catalogues	<a href="#">Catalogues in PDF-format</a>
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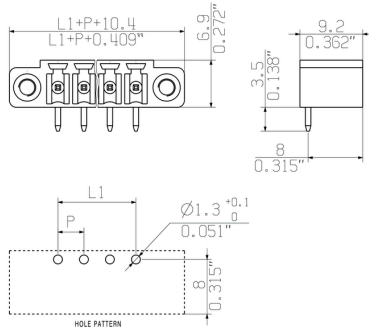
**Data sheet**

**CH 3.81/06/90F 3.5SN GN BX**

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**Drawings**



## Recommended wave soldering profiles

**Weidmüller Interface GmbH & Co. KG**  
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 Germany  
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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.