

**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.	<a href="#">2643420000</a>
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
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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	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
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**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	<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> </ul>
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**Approvals**

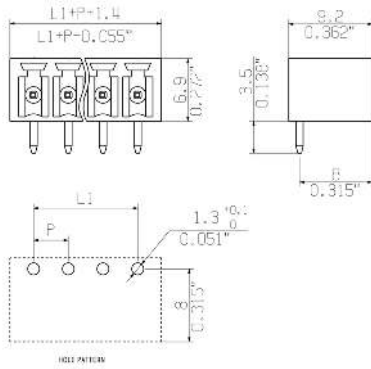
Approvals	
ROHS	Conform

**Data sheet**

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**Drawings**



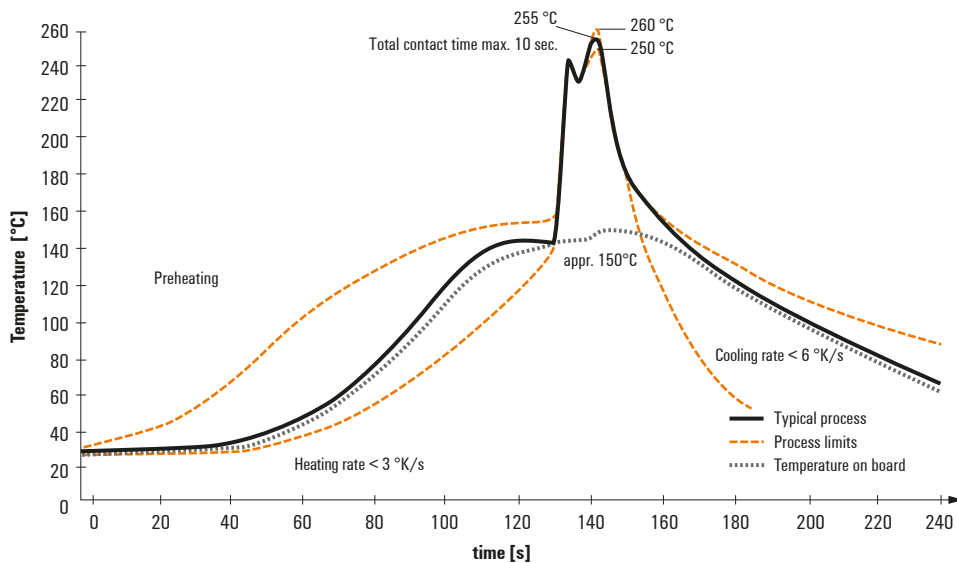
## Recommended wave soldering profiles

**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.