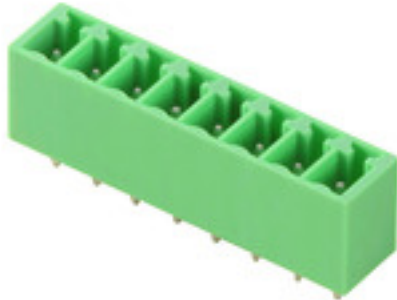


**OMNIMATE basic – Series CH  
CH 3.81/04/180G 3.5SN GN BX**

**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 3.81/04/180G 3.5SN GN BX
Order No.	<a href="#">2643630000</a>
GTIN (EAN)	4050118643343
Qty.	672 pc(s).
Product data	IEC: 320 V / 8 A UL: 300 V / 8 A
Packaging	Box

**OMNIMATE basic – Series CH  
CH 3.81/04/180G 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

**Technical data**
**Dimensions and weights**

Net weight 1.003 g

**System specifications**

Product family		Type of connection	
OMNIMATE basic – Series CH			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	4	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	11.43 mm	L1 in inches	0.45 inch
Number of rows	1	Pin series quantity	1
Plugging cycles	150		

**System Parameters**

Product family		Type of connection	
OMNIMATE basic – Series CH			Board connection
Pitch in mm (P)	3.81 mm	Pitch in inches (P)	0.15 inch
Number of poles	4	L1 in mm	11.43 mm
L1 in inches	0.45 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
-----------------------------------	-------	-----------------------------------	-----


**Data sheet**

**OMNIMATE basic – Series CH  
CH 3.81/04/180G 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

**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
- 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.

**Approvals**

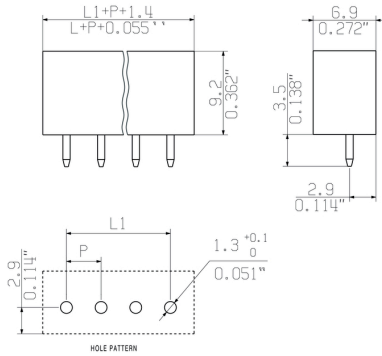
Approvals	
ROHS	Conform

**Data sheet**

**OMNIMATE basic – Series CH  
CH 3.81/04/180G 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

**Drawings**



## Recommended wave soldering profiles

**Weidmüller Interface GmbH & Co. KG**  
 Klängenbergstraße 16  
 D-32758 Detmold  
 Germany  
 Fon: +49 5231 14-0  
 Fax: +49 5231 14-292083  
 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.