

## TCS 3.81/11/90 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="#">2650520000</a>
Type	TCS 3.81/11/90 3.5SN GN BX
GTIN (EAN)	4050118636451
Qty.	192 pc(s).
Product data	IEC: 320 V / 10 A / 0.2 - 1.5 mm <sup>2</sup> UL: 150 V / 10 A / AWG 26 - AWG 16
Packaging	Box

Creation date April 16, 2021 7:08:22 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	5.06 g
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**System parameters**

Product family	OMNIMATE basic – Series TCS	Wire connection method	Clamping yoke connection
Mounting onto the PCB	THT solder connection	Conductor outlet direction	90°
Pitch in mm (P)	3.81 mm	Pitch in inches (P)	0.15 inch
Number of poles	11	Pin series quantity	1
Solder pin length (l)	3.5 mm	Solder pin dimensions	0.5 x 0.9mm
Solder eyelet hole diameter (D)	1.3 mm	Number of solder pins per pole	1
Screwdriver blade	0.4 x 2.5	Tightening torque, min.	0.2 Nm
Tightening torque, max.	0.23 Nm	Clamping screw	M 2
Stripping length	5 mm	L1 in mm	38.1 mm
L1 in inches	1.5 inch		

**Material data**

Insulating material	PA	Colour	Pale green
Colour chart (similar)	RAL 6021	Insulating material group	I
UL 94 flammability rating	V-0	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

**Conductors suitable for connection**

Clamping range, min.	0.2 mm <sup>2</sup>	Clamping range, max.	1.5 mm <sup>2</sup>
Wire connection cross section AWG, min.	AWG 26	Wire connection cross section AWG, max.	AWG 16
Solid, min. H05(07) V-U	0.2 mm <sup>2</sup>	Solid, max. H05(07) V-U	1.5 mm <sup>2</sup>
Flexible, min. H05(07) V-K	0.2 mm <sup>2</sup>	Flexible, max. H05(07) V-K	1 mm <sup>2</sup>
w. plastic collar ferrule, DIN 46228 pt 4, min.	0.25 mm <sup>2</sup>	w. plastic collar ferrule, DIN 46228 pt 4, max.	1 mm <sup>2</sup>
w. wire end ferrule, DIN 46228 pt 1, min.	0.25 mm <sup>2</sup>	w. wire end ferrule, DIN 46228 pt 1, max.	1 mm <sup>2</sup>

**Rated data acc. to IEC**

Rated current, min. number of poles (Tu=20°C)	10 A	Rated voltage for surge voltage class / pollution degree II/2	320 V
Rated voltage for surge voltage class / pollution degree III/2	250 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)	150 V	Rated current (Use group B / CSA)	10 A
Wire cross-section, AWG, min.	AWG 26	Wire cross-section, AWG, max.	AWG 16

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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) 150 V

Rated current (Use group B / UL 1059) 10 A

Wire cross-section, AWG, min. AWG 26

Wire cross-section, AWG, max. AWG 16

Reference to approval values

Specifications are maximum values, details - see approval certificate.

## Packing

Packaging Box

VPE length 0

VPE width 0

VPE height 0

## Classifications

ETIM 6.0 EC002643

ETIM 7.0 EC002643

ECLASS 9.0 27-44-04-01

ECLASS 9.1 27-44-04-01

ECLASS 10.0 27-44-04-01

ECLASS 11.0 27-46-01-01

## 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.
- In the case of a two-pole terminal, the insulating body must be held against the terminal when tightening the screw.
- 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 [Catalogues in PDF-format](#)

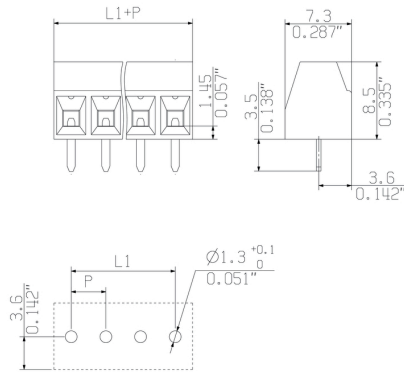
**Data sheet**

**TCS 3.81/11/90 3.5SN GN BX**

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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.