



TECHNICAL INFORMATION (visit [www.techno.it](http://www.techno.it))

CODES	THB.381.A2x / THB.381.A2x.x THB.381.B2x / THB.381.B2x.x	THB.381.A3x / THB.381.A3x.x THB.381.B3x
Number of poles	2 poles	3 poles
Type of terminals	Screw	Screw
Current	10A AC/DC	10A AC/DC
Voltage	500V <sup>(1)</sup> AC (12V-60V DC) 250V AC (for class II applications)	500V AC (THB.381.x3A) 250V AC (class II - THB.381.x3A) max. 60V DC (THB.381.x3A)
Impulse withstand voltage	4kV	2.5kV
Protection degree (IP6x)	IP66 <sup>(2)</sup> /IP68 (30m/1h)/IP69	IP66/IP68 (30m/1h)/IP69 <sup>(3)</sup>
Conductor cross-section (stranded/solid) min. - max.	0.25 mm <sup>2</sup> - 1.0 mm <sup>2</sup>	0.25 mm <sup>2</sup> - 1.0 mm <sup>2</sup>
Cable diameter min. - max. <sup>(1)</sup>	5.8 mm - 6.9 mm (THB.381.x2x) 7.0 mm - 8.0 mm (THB.381.x2x.L) <sup>(2)</sup> 4.0 mm - 8.0 mm (THB.381.x2x.R) <sup>(2)</sup>	7.0 mm - 8.0 mm (THB.381.x3x) <sup>(2)</sup> 4.0 mm - 8.0 mm (THB.381.x3x.R) <sup>(2)</sup>
Raw materials of connectors and sealing	PA66 GF UL94 V0/V2 TPE Halogen free	PA66 GF UL94 V0/V2 TPE Halogen free
Operating temperature min. - max.	-40°C / +125°C	-40°C / +125°C
Reference regulations	EN61984	EN61984

<sup>(1)</sup> Use relative accessories for smaller cables or single conductors.  
<sup>(2)</sup> Tested up to 7.5mm  
<sup>(3)</sup> Techno Lab approved

**SAFETY NOTES**

- Disconnect the power supply before starting installation.
- To prevent dust and damp/water from impairing proper functioning of the product, it is advisable to use protective caps when the connectors are not connected (for further information visit our website [www.techno.it](http://www.techno.it)).

**WARNING**

The connector is equipped with energized parts! The connector is manufactured in compliance with the electrical and safety regulations. It is the responsibility of the fitter and the installer to respect the requirements in terms of safety of the system and make sure that they take all the safety measures to protect themselves from the energized parts.

**NOTE**

Before assembly and installation, please read the installation instructions carefully! The proper functioning of the product is guaranteed only if these installation instructions are read and followed carefully.



Scan the QR code with your mobile phone and watch the installation video.

Techno s.r.l.

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INSTALLATION ILLUSTRATIONS

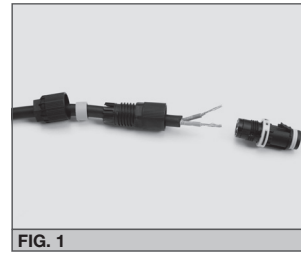


FIG. 1

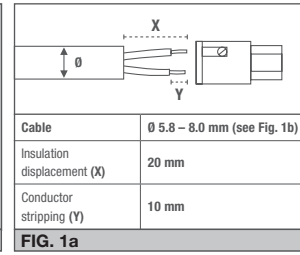


FIG. 1a

Grommet/Adapter	Cable Ø min. - max.	
	2 poles	3 poles
	7.0 mm - 8.0 mm <sup>(1)</sup>	7.0 mm - 8.0 mm <sup>(1)(2)</sup>
	5.8 mm - 6.9 mm <sup>(1)</sup>	-

<sup>(1)</sup> For cables with a smaller diameter, use the appropriate accessories (visit [www.techno.it](http://www.techno.it))  
<sup>(2)</sup> Tested up to 7.5mm

FIG. 1b

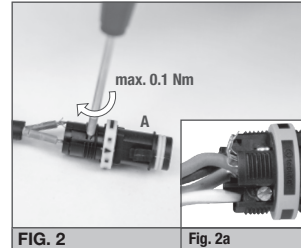


FIG. 2

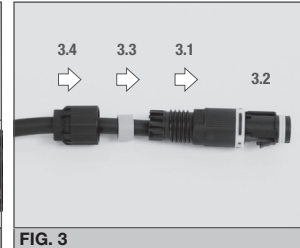


FIG. 3

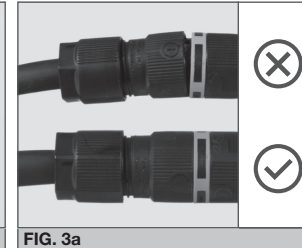


FIG. 3a

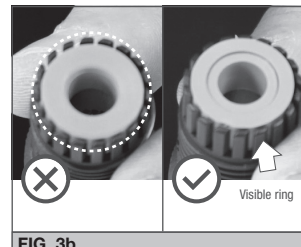


FIG. 3b

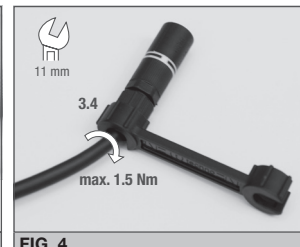


FIG. 4

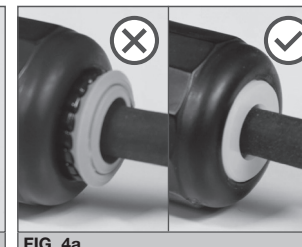


FIG. 4a

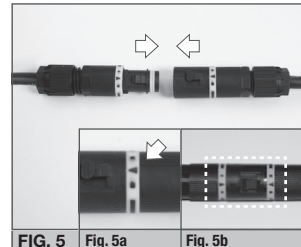


FIG. 5

Fig. 5a

Fig. 5b

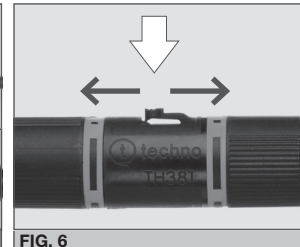


FIG. 6

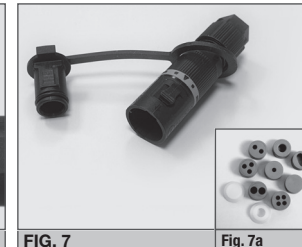


FIG. 7

Fig. 7a



FIG. 8



FIG. 9

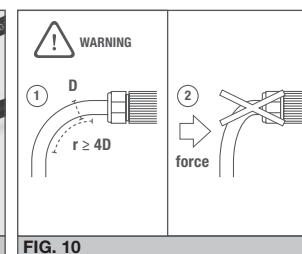


FIG. 10

INSTALLATION INSTRUCTIONS

**FIG. 1**

- Remove the outer jacket of the cable and the insulation from the wires (Fig. 1a).
- Insert the cable through the nut, the grommet and the cable gland.
- Check the size of the cable to be wired and make sure it is the right grommet inside the cable gland (Fig. 1b).

**FIG. 2**

- Insert each wire one by one into the terminals of the connector A.
- Tighten the screws of the wires clockwise (max. 0.1 Nm). Make sure the wires/copper cores are properly inserted into the terminals, so they are in contact (Fig. 2a - example of incorrect installation).
- For the items (p/n THB.381.x3x.x) use the hex screwdriver (0.9 mm) supplied in the packaging (max. 0.1 Nm).

**FIG. 3**

- Join the cable gland (3.1) and the connector (3.2). Tighten the cable gland clockwise (max. 1.5 Nm) using a common tool.
- Make sure the cable gland is properly installed and tight into the connector (Fig. 3a).
- Insert the grommet (3.3) into the cable gland (3.1). Make sure the grommet is properly installed (Fig. 3b).

**FIG. 3b**

- In case of grommet made of two pieces (Fig. 1b), make sure to insert the grommet into the cable gland according to the correct orientation: the indicated ring must be visible.

**FIG. 4**

- Tighten the nut (3.4) clockwise using the spanner (p/n 6000462KC - max. 1.5 Nm). The spanner will slip over when you have reached the optimal torque.
- Nut tightening is also possible with a common tool (11 mm - max. 1.5Nm).
- Wire the other connector (Socket or Plug) same as shown from (Fig. 1) to (Fig. 4).

**FIG. 4a**

- Make sure the grommet is in the correct position after tightening the nut (Fig. 4).
- For cables with a smaller diameter, use the appropriate accessories (visit [www.techno.it](http://www.techno.it))

**FIG. 5**

- Make sure the correct orientation of the Socket and Plug connector as indicated by the arrows of the connectors (Fig. 5a).
- Insert the Socket into the Plug connector until you notice a firm resistance to progress (Fig. 5b).
- Gently pull the two connectors in opposite direction (disconnection) without acting on the release button. A strong resistance to disconnection indicates a correct installation of the product.

**FIG. 6**

- To disconnect the Socket and Plug connector, press the release button fully and manually and pull the connectors in the direction of the arrows.

**FIG. 7**

- To prevent dust and damp/water from impairing proper functioning of the product, it is advisable to use protective caps when the connectors are not connected.
- Connectors require the use of adapters for individual conductors or cables with a diameter lower than that indicated in the TECHNICAL DATA.
- Grommets available in TPE or Silicone material (for further information visit our website [www.techno.it](http://www.techno.it)).

**FIG. 8**

- With the aim of providing quick junction connecting solutions, Techno offers a range of plug and socket current distributors (TH625) compatible with TH381 connectors.
- The TH625 (IP68 current distributors are a quicker solution than conventional junction boxes and cable glands (for more information visit [www.techno.it](http://www.techno.it)).

**FIG. 9**

- The TH381 series is also available in wired and overmolded version with cable lengths from 0.5 to 5 mt. (for further information visit our website [www.techno.it](http://www.techno.it))

**FIG. 10**

- If the product is installed in tight spaces where it is necessary to bend the cable, pay attention to the minimum bending radius (1) that must be  $\geq 4D$  (D= cable diameter).
- Make sure that the cable is not subject to external forces (2) that tend to flex it. This phenomenon can affect the correct functioning of the product and above all jeopardize the resistance to dust and water infiltration (IP68).