

# eco|mate<sup>m</sup> Mounting Instructions

## Mounting instruction, straight cable connector

Stripping lengths	Measure a <sup>1)</sup>	Measure b
Screw contacts		
with internal cable clamping	18 <sup>+1</sup>	7 <sup>+1 2)</sup>
without internal cable clamping	25 <sup>+1</sup>	7 <sup>+1 2)</sup>
Solder contacts		
with internal cable clamping	14 <sup>+1</sup>	4 <sup>+1</sup>
without internal cable clamping	22 <sup>+1</sup>	4 <sup>+1</sup>
Crimp contacts		
0.14 - 0.50 mm <sup>2</sup>		3 <sup>+0,5</sup>
0.50 - 1.5 mm <sup>2</sup>		3.5 <sup>+1</sup>
with internal cable clamping	14 <sup>+1</sup>	
without internal cable clamping	22 <sup>+1</sup>	

## Mounting instruction, right angled cable connector

Stripping lengths	Measure a <sup>1)</sup>	Measure b
Screw contacts		
without internal cable clamping	35 <sup>+1</sup>	7 <sup>+1 2)</sup>
Solder contacts		
without internal cable clamping	32 <sup>+1</sup>	4 <sup>+1</sup>
Crimp contacts		
0.14 - 0.50 mm <sup>2</sup>		3 <sup>+0,5</sup>
0.50 - 1.5 mm <sup>2</sup>		3.5 <sup>+1</sup>
without internal cable clamping	32 <sup>+1</sup>	

<sup>1)</sup> PE + 2 mm    <sup>2)</sup> End splice recommended

<sup>3)</sup> The tightening torque figures can vary depending on the cable you use



### Rubber gasket

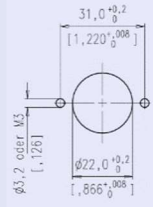
for cable diameter 4-6 mm<sup>2</sup>

N 06 007 0004

While mounting the rubber gasket for 4-6 mm<sup>2</sup>, the cable clamp shall be bolted with the convex section face-down in order to ensure the strain relief.

### Mounting Instruction <sup>2)</sup>/ Standard flange receptacle

- ☑ Mounting hole  $\varnothing$  22 without chamfer; suitable sealing (e.g. glue) for screws is necessary. Tightening torque 0,8 Nm
- ☑ Solder termination: recommended temperature max. 260°C. Higher temperatures possible if care is taken to ensure that the soldering tip does not contact with the plastic parts
- ☑ Crimp termination: crimp contacts to be ordered separately  
Male: ..N01 016 0011.. / ..N01 016 0004..  
Female: ..N02 016 0003.. / ..N02 016 0002..
- ☑ Screw termination: tightening torque 0,5 Nm, wire ferrules recommended

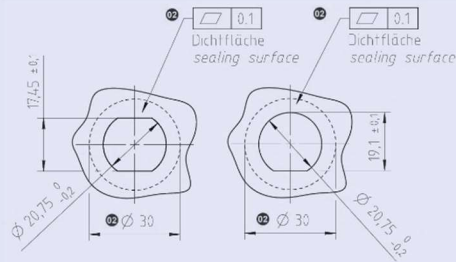


—For sealing reason this surface needs to be level and free of burrs

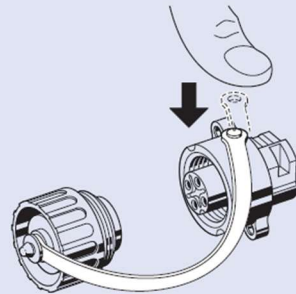


### Mounting Instruction / 3+PE Jam nut receptacle

- ☑ Max. panel thickness: 8mm
- ☑ Tightening torque: 4-5 Nm
- ☑ Crimp contacts to be ordered separately  
Male: ..N01 020 0023 1 / ..N01 020 0024 1  
Female: ..N02 020 0023 1 / ..N02 020 0024 1

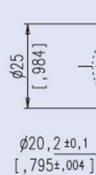


### Mounting of the protective covers on the back shell, male or female receptacles



### Mounting Instruction <sup>2)</sup> / High-Voltage receptacle

- ☑ Max. panel thickness: 2,5mm
- ☑ Tightening torque 4-5 Nm
- ☑ If turn protection is required, we recommend to glue the receptacles
- ☑ Standard caps don't fit on high voltage version!
- ☑ Crimp contacts to be ordered separately  
Male: ..N01 016 0003.. / ..N01 016 0002..



—For sealing reason this surface needs to be level and free of burrs.



### Removing 1,6mm crimp contacts with FG 0300 146 1



1. Extend the pin out of the release tool and fix it in place



2. Insert the tool from the front side into the center of the contact



3. When fully inserted pin or socket contact can be pulled out with slight force

**Order Information**

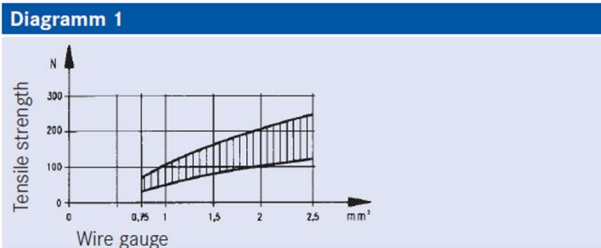
<b>Color coding</b> Backshells of cable connectors are available in different colors upon request. Min order quantity = 1000 pcs. per type.	<b>Crimp version</b> Order number do not include crimp contacts. Please order separately (see page 23).
<b>Mechanical coding</b> Achieved by special coding pins which are inserted into contact cavities. Min. order quantity = 1000 pcs. per type.	<b>Crimp tooling</b> Ask for our catalogue "Tools".

**Screw termination**

Screw clamps are designed acc. to EN 60999-1/VDE 06095.1. Chart 1 below shows the screw size depending on wire size and the required clamping and testing torque.

**Chart 1**

<b>Wire size (mm<sup>2</sup>)</b>	1.5	2.5
<b>Screw size</b>	M 3	M 3
<b>Test torque (Ncm)</b>	max. 50	max. 50



eco|mate<sup>™</sup> Remarks / Safety Classification



**1. General Remarks**

These connectors are designed and produced in conformity with the low voltage directive (73/23/EWG) respectively Gerätesicherheitsgesetz (German law) and are especially in accordance with the standards DIN EN 61984 / IEC 61984 (VDE 0627); IEC 60664-1 (VDE 0110-1) and IEC 60529.

The connectors may be used only within the technical ratings. All technical data refer to mated connectors under live conditions. The safety of the connector system depends on the correct selection of products, proper assembly of the connector device and a precise fit of the connectors

**2. Application Remarks**

Connectors with / without breaking capacity must be used according to specified technical ratings. The technical data represents the initial value of mated parts under predetermined conditions and length of time. These values could change with different test parameters or product requirements. The connectors of the series are designed for the areas of application including the construction and installation of controlling and electrical devices. The product has been tested for the intended purposes only. If the connection is used other than originally intended, or in another manner that we have not previously tested, the consumer assumes full responsibility.

All rated data for the connectors listed in this catalogue are based on overvoltage category III and pollution degree 3 for electronic applications if not stated differently. Connectors were completely mated according to their respective safety locking mechanism. Selection and testing of connectors with / without breaking capacity to meet specific product or industrial requirements such as rated voltage and the related clearances and creepage distances are the responsibility of the user.

**3. Assembling Remarks**

Protection against electrical shock of the termination of the connectors shall be secured by correct mounting. Connectors of the same or different series being mounted side by side may be protected against incorrect mating by the use of coding options. Care must be taken to ensure the parts are correctly mated and screws are tightened with the proper torque.

**4. Termination Remarks**

Cable connectors are effectively secured when using the strain relief (internal clamping ring). All cable properties or specifications must be compatible with the connector design and materials. Please make sure that the usability of the cable in conjunction with the clamping ring is given. Designated wire conductors must be terminated to the correct poles in the connector.

Crimp contacts must be fully inserted into the plastic housing and strain relief assured with a slight tug on the wire. Wire should be stripped correctly according to printed specifications to insure no electrical contact can be made between the conductors. There should be no nicked or cut strains during the stripping action.