Assembly Instructions

REP Series
Environmentally - Sealed Rectangular Plastic Connectors

Hypertac S.A. – January 2014
Table of Contents

I. Introduction
   A. Connectors & Contacts
   B. Tooling
   C. Data code reading
   D. Cavities marking

II. Cabling
    A. Crimping
    B. Contact insertion
    C. Contact extraction
    D. Coding

III. Accessories
     A. Cable ties
     B. Sealing plug
     C. Dummy contacts
     D. Heat-shrinkable tubing

IV. Panel Mounting
    A. REP 202, 606 & 612 Series
    B. REP 402, 406 & 412 Series
I. Introduction

A. Connectors and contacts

REP Connector: Receptacle & Plug

Hyperboloid Contact - Ø1.5mm (16)
REP Receptacle Connector for PCB
Connectors are delivered equipped with the contacts.

Receptacle with straight termination contact
Receptacle with bent (90°) termination contact

B. Tooling

Crimping tool
Locator

FT8 (Daniels) or TGV101 (Astro-tool)
SH463 or TGV 202

Extraction tool

SD-0150000012
C. Data code reading

Example of the picture: week 18th of 2010

D. Cavities marking
II. Cabling

A. Crimping

Striping process of the cable

The cables must be stripped with a suitable tool for instance as shown by the picture below to avoid damaging the core and the insulating sheath. Strip the cable over 7mm corresponding to the drilling dimension of the contact cup.

Crimping process of the contact

A. Check the tool turrent position (red).
B. Check the selector position

Insert the contact mating side (hyperboloid) in the locator

Check that any cable wire stalk left outside (to avoid damaging the silicone)
Crimping tools

<table>
<thead>
<tr>
<th>Contact</th>
<th>Crimping tool</th>
<th>Tool turret</th>
<th>Selector position and wire cross section (EN50306 – NFF63808)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0151071-20-----0151832-20-----</td>
<td>Astro-tool TGV 101</td>
<td>TGV 202 Red</td>
<td>5 - 0.5mm² to 1mm² (AWG20-18) 6 - 1.34mm² to 1.82mm² (AWG16-14) 7 - 1.91mm² to 2.61mm² (AWG14)</td>
</tr>
<tr>
<td>0151832-20-----</td>
<td>Daniels FT8</td>
<td>SH 463 Red</td>
<td></td>
</tr>
</tbody>
</table>

B. Contact insertion

Hold connector with rear grommet facing you. Push contact straight into connector grommet until a click is felt. A slight tug will confirm that the contact is properly locked in place.
C. Contract Extraction

Hold connector with mating side facing you. Remove the contact with the tool SD-0150000012 (see picture)

Socket contact extraction process

Pin contact extraction process

Contact unlocked
D. Coding

Connectors are delivered without any coding.  
3 codings are possible without any additional part.

Not coded version

Plug

Receptacle
III. Accessories

A. Cable ties (i.e. Tyrap)  
![Slots for cable ties. For reminder, the cables ties are not supplied with the connectors.](image)

B. Sealing Plug (REP_001)  
When the connector is not fully equipped with contacts and to ensure the IP66 sealing, the cavities do not have to stay empty. The sealing plug REP_001 is then equipped in the connector

![Hold the connector with the rear grommet facing you and push the plug in the empty cavity.](image)
C. Male and female plastic dummy contact (REP_002)

For >400V application use, the dummy contact must be used. The plastic dummy contact increases the creepage distance and ensures the IP66 rating protection.

- Volting rating: 400V according to EN50124-1, pollution degree 3
- Creepage distance: 7.73mm
- For > 230V (400V) application use, please use a cable according to EN50264-2-1

**Warning:** the plastic dummy can not be removed, once inserted
D. Heat-shrinkable tubing constituted cable

Minimum cable diameter for the heat-shrinkable tubing

- REP-02 - 4mm
- REP-06 - 6mm
- REP-12 - 13mm

If the diameter of the cable is not enough important, it is possible to extend the cable with another thermo-shrinkable tube. It is also possible to remove the back strip to allow a better retractability of the thermo-shrink tube. To remove this strip, you can use a cutter.

1. Strip the cable

Strip the cable on 50mm to allow the tube covering the cable

2. Insert the contacts: pins and sockets
3. Cutting the tube

Cut the tube on 70mm and place it as described in the pictures.

4. Shrinking

With a hot air gun, shrink the tube.

Note: Start with the part covering the connector and then end with the one with the cable.

The temperature maximum of the shrinking is 110°C. If the temperature is higher, the connector will be damaged.
IV. Panel Mounting

A. REP 202, 606 & 612

1. Cross mount

The screw must be fixed with a maximum of 60N.cm and fixed with the right precaution to avoid a release (i.e. threadlocker, elastic screw, unlocked screw, ...)

<table>
<thead>
<tr>
<th>REP 2--</th>
<th>B</th>
<th>G</th>
<th>D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>REP 202</td>
<td>26.1</td>
<td>18</td>
<td>12</td>
<td>10.7</td>
<td>27.2</td>
</tr>
<tr>
<td>REP 206</td>
<td>37.1</td>
<td>22</td>
<td>23</td>
<td>29.7</td>
<td>38.2</td>
</tr>
<tr>
<td>REP 212</td>
<td>53.5</td>
<td>45.5</td>
<td>39.5</td>
<td>46.2</td>
<td>54.7</td>
</tr>
</tbody>
</table>
B. REP 402, 406 & 412

1. Cross mount

The screw must be fixed with a maximum of 60N.cm and fixed with the right precaution to avoid a release (i.e. threadlocker, elastic screw, unlocked screw, ...)
2. Sealing

The accessories are not supplied with the connector, the user must provide a sealing at the screws/nuts with the sealing rings.

a) Position of the connector to optimize the sealing

90° position

b) Connector with a vertical position

Check with caution that the connector is dry before insertion: risk of the presence of water in wet environment.