

3) TERMINATION INSTRUCTIONS CABLES TO CONTACTS

ATTENTION: When it is necessary to use the grommet to achieve water tightness, size the external diameter of the conductor pursuant to Table 1:

TABLE 1: GROMMET HOLE SEALING RANGE

| Connector Type | Contacts size | Ø external cable | |
|--|---------------|------------------|-------|
| | | min | Max |
| IT ITB ITS | 16 | 1.62 | 3.30 |
| | 12 | 2.89 | 4.32 |
| | 8 | 4.16 | 6.47 |
| | 4 | 6.90 | 9.40 |
| | 0 | 10.54 | 13.97 |
| Water tightness required according to VG 95234 | AWG 16 | 2.2 | 2.8 |
| | AWG 12 | 3.1 | 3.5 |
| | AWG 8 | 5.9 | 6.5 |
| | AWG 4 | - | - |
| | AWG 0 | 12.1 | 12.8 |

SOLDERING

Strip the conductor according to Table 2, then proceed with the instructions on the following page.

Stripped Conductor

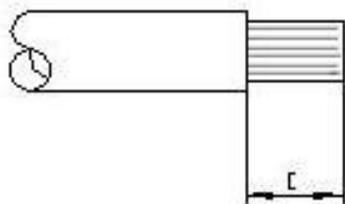
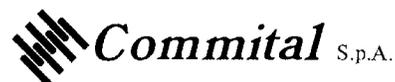


TABLE 2:
CONDUCTOR STRIP LENGTHS

| Contact Size | C (mm) | |
|--------------|--------|--------|
| | Crimp | Solder |
| 18 | 4,8 | 4.0 |
| 16S | 6,4 | 6.4 |
| 16 | 6,4 | 6.4 |
| 12 | 8,5 | 9.5 |
| 8 | 12,7 | 12.1 |
| 4 | 12,7 | 15.9 |
| 0 | 14.0 | 15.9 |
| 4/0 | 23.2 | 23.6 |



- 1) Immerse the stripped end of the conductor to half the dimension C (Table 2) in a solution of deoxidizer compound, and then in a chemical mixture that contains an alloy of 60% tin and 40% lead maintained in a constant fusion temperature.
- 2) Immobilize the connector so that the soldering buckets are turned upward and towards the operator. Fix the connector to its mating connector or fixture and clamp it securely.
- 3) Insert the pre-tinned conductor into the contact cavity and heat it until the solder melts, then add a tin-lead alloy with a deoxidizer core as a filler.
- 4) Remove the heat source away from the contact. Continue to immobilize the conductor until the soldering has cooled and solidified.
- 5) Be careful to not overheat the contacts which could compromise the electrical characteristics of the connector.
- 6) Adjust the power of the welding system according to the table below:

| Contact Size | Welding Power |
|---------------------|----------------------|
| 18 - 16 | 30 W |
| 12 | 60 W |
| 8 - 4 - 0 | 300 W |

- 7) When all soldering is completed, carefully clean the parts around the contact to remove excess tin and deoxidizer.
- 8) Large dimension contacts (Size 0 and 4) can be removed from the insert before soldering to the cable as outlined above in paragraphs 1 through 4.

(Instructions continued on following page)



- 9) Place the contact into the insert after having immobilized the connector pursuant to the instructions outlined in paragraphs 1 through 4 and to tables 5 and 6 on page 18.
- 10) If you plan to use heat shrink tubing to insulate the contacts, you must wait to do so until after the contacts have been correctly installed in the insert.
- 11) When working with large connectors (Sizes 36 - 40 - 110) that require contacts sized 4, 0, and 4/0, special care must be made to control correct alignment. In applications where space is severely limited, the choice of a highly flexible cable can help assure an adequate bend radius that will not stress the contact. Cables must be fixed inside such applications. Large connectors can be supplied with rigid or non-rigid grommets that help to achieve proper alignment.

