CAUTION : Read instructions thoroughly and completely prior to beginning installation.

Installation instructions for separable tee connector - type C interface

EUROMOLD®

(K),(M),(P)480TB/G

Up to 20.8/36 (42) kV

Only to be used on copper wire screened cable with extruded semi-conductive screen and conductors of copper or aluminium.

WARNING : CHANGED INSTALLATION

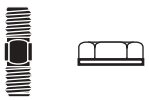
Check if the diameter over cable core insulation is in accordance with the cable reducer range as indicated in table below:

Cable reducer size (see label on cable reducer)	Dia. over core insulation (mm)	
	min	max
CA0-11	12.0	19.0
CA0-15	16.0	26.5
CA0-18	19.0	32.6
CA0-21	22.0	34.6
CA0-27	28.5	37.5

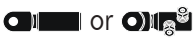
Required components for the connector installation :


3 x Tee connector housing - 480BT


3 x Cable reducer CA0-W


3 x Threaded stud M16 & flange nut


1 x Installation rod (for conductor sizes 185 up to 300 mm²)


3 x Conductor contact - TBC-X or TMBC-X


3 x Basic insulating plug + cap - 800BIPR

or


3 x Basic insulating plug + cap - 800BIPA


Silicone grease + wipers


1 x Nylon vent rod


Roll adhesive tape

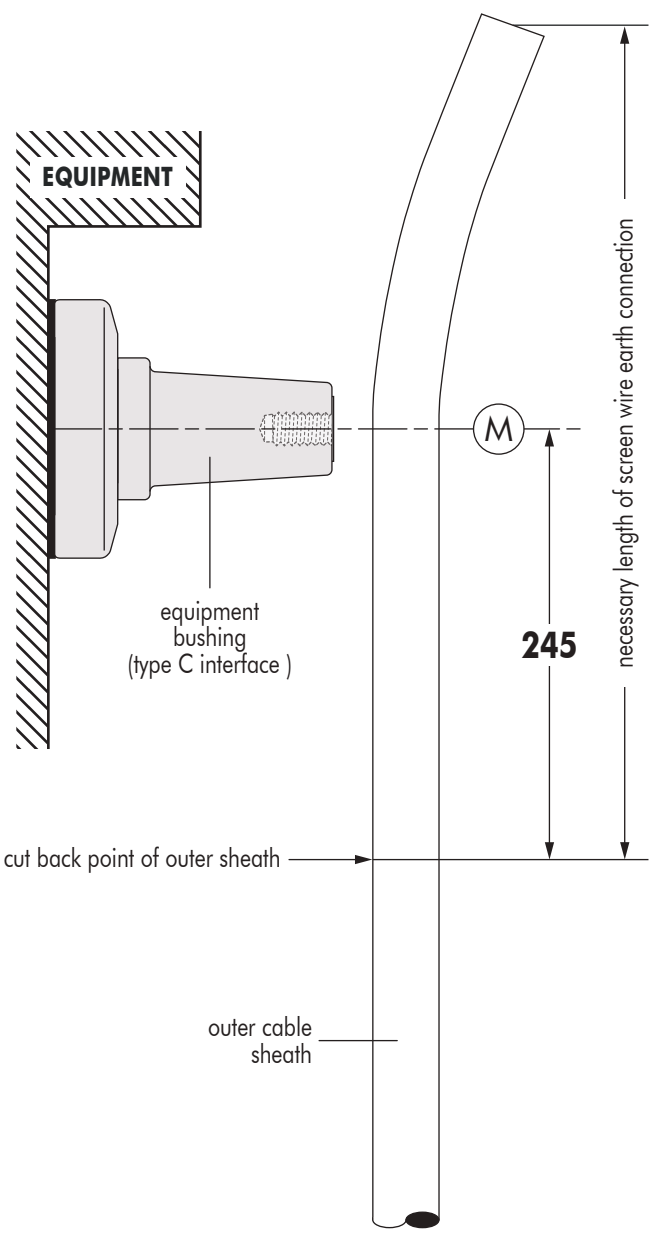

Water sealing mastic, type MWS (optional)

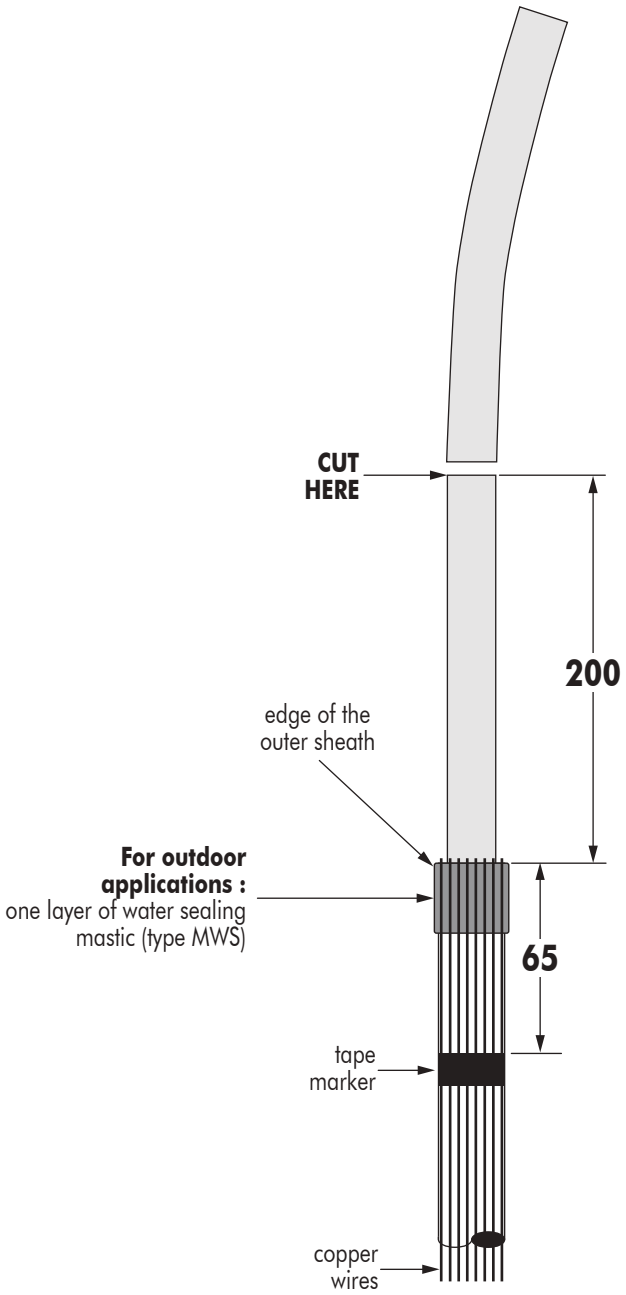

Gloves


Installation instructions

Nexans
ELECTRIFY THE FUTURE

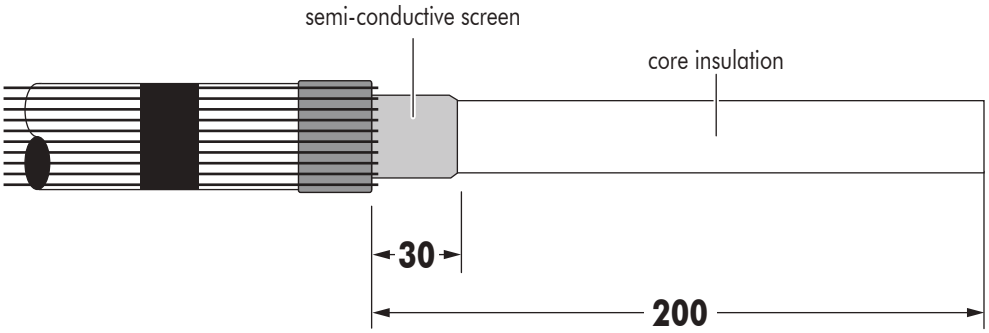
This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices. These instructions do not attempt to provide for every possible contingency. Failure to follow these instructions could result in damage to the product and serious or fatal injury. IMPORTANT : Cable and associated apparatus must be de-energised, locked out, and tagged prior to product installation.





1. Train the cable into the approximate finished position next to the equipment bushing. Be sure to allow enough extra length of screen wires to connect to earth.
2. Mark centre line **« M »** of the bushing.
3. Remove the outer cable sheath to a point **245** mm from the centre line **« M »** of the bushing.
4. For indoor applications, bend the screen wires back over the outer sheath and proceed to step no. 5.
   For outdoor applications:
   - Wrap one layer of water sealing mastic (type MWS) around the outer sheath, flush with the end (**25** mm minimum width). Completely encircle the cable.
   - Bend the screen wires back over the mastic and along the outer sheath, pressing them into the mastic.
   - **Important:** screen wires should not touch each other when pressed into the mastic to prevent water ingress.
5. Apply a tape marker around the outer sheath **65** mm from the edge.
6. Cut the cable to a point **200** mm from the outer sheath.

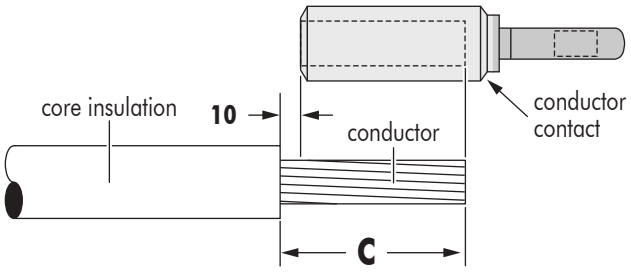
CABLE PREPARATION



1 Check distance of **200** mm.
2 Remove the semi-conductive screen to a point **30** mm from the outer sheath.
For extruded easy strip semi-conductive screen:
Cut squarely taking care not to cut the core insulation.
For bonded extruded semi-conductive screen:
Use an appropriate pencilling tool. Make a clean transition between core insulation and semi-conductive screen.

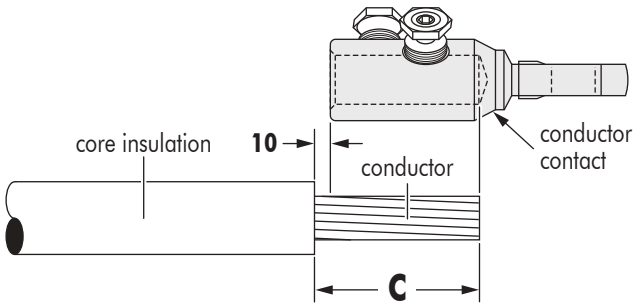
REMOVAL OF THE CORE INSULATION

A. Compression type contacts (Type TBC-X)

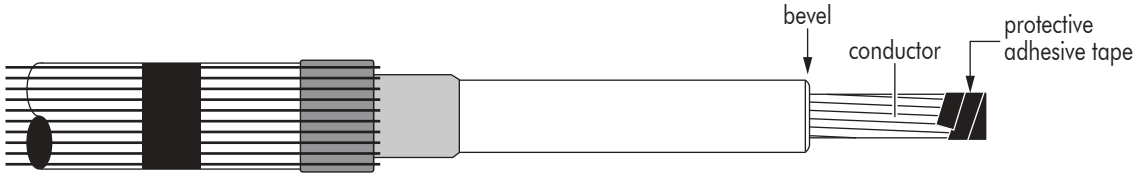


1 A. Remove the core insulation from the conductor for a distance **« C »** mm
(**C** = depth of contact bore + **10** mm).

B. Mechanical type contacts (Type TMBC-X)



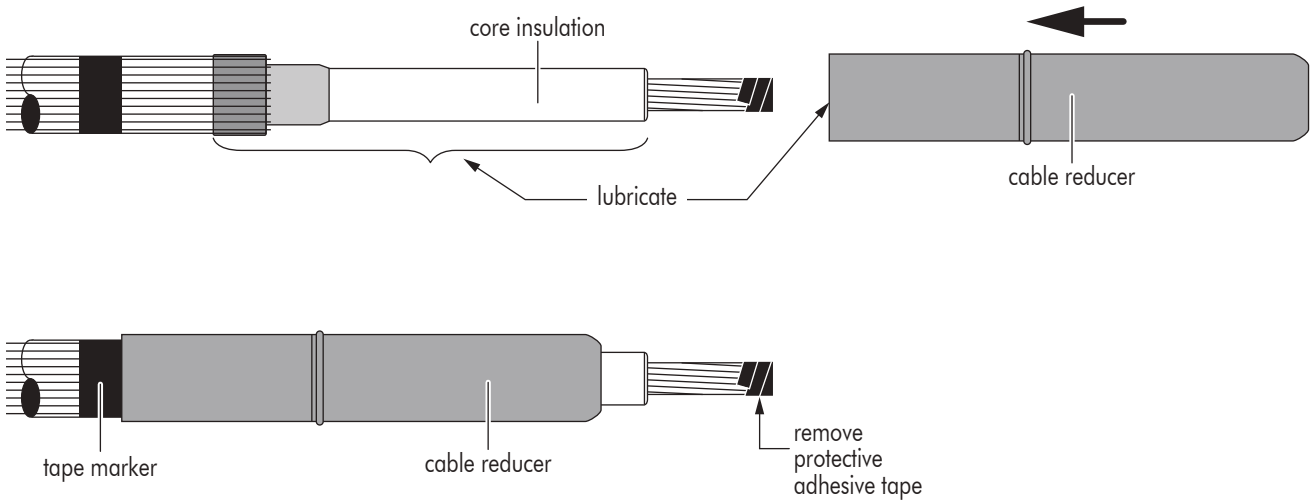
1 B. Remove the core insulation from the conductor for a distance **« C »** mm
(**C** = depth of contact bore + **10** mm).



2 Slightly bevel the edge of the core insulation (max 2 mm).
3 **Thoroughly clean core insulation.** Always wipe towards the screen wires.
4 As a protection, wrap a few turns of adhesive tape around the conductor end.

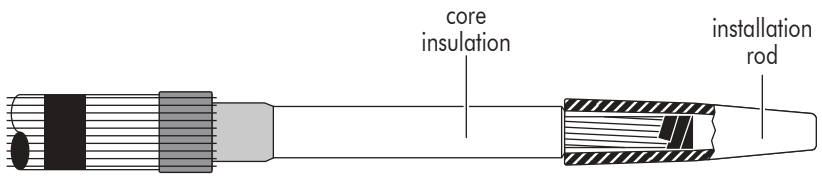
INSTALLATION OF THE CABLE REDUCER

For conductor sizes 16 up to 150 mm²

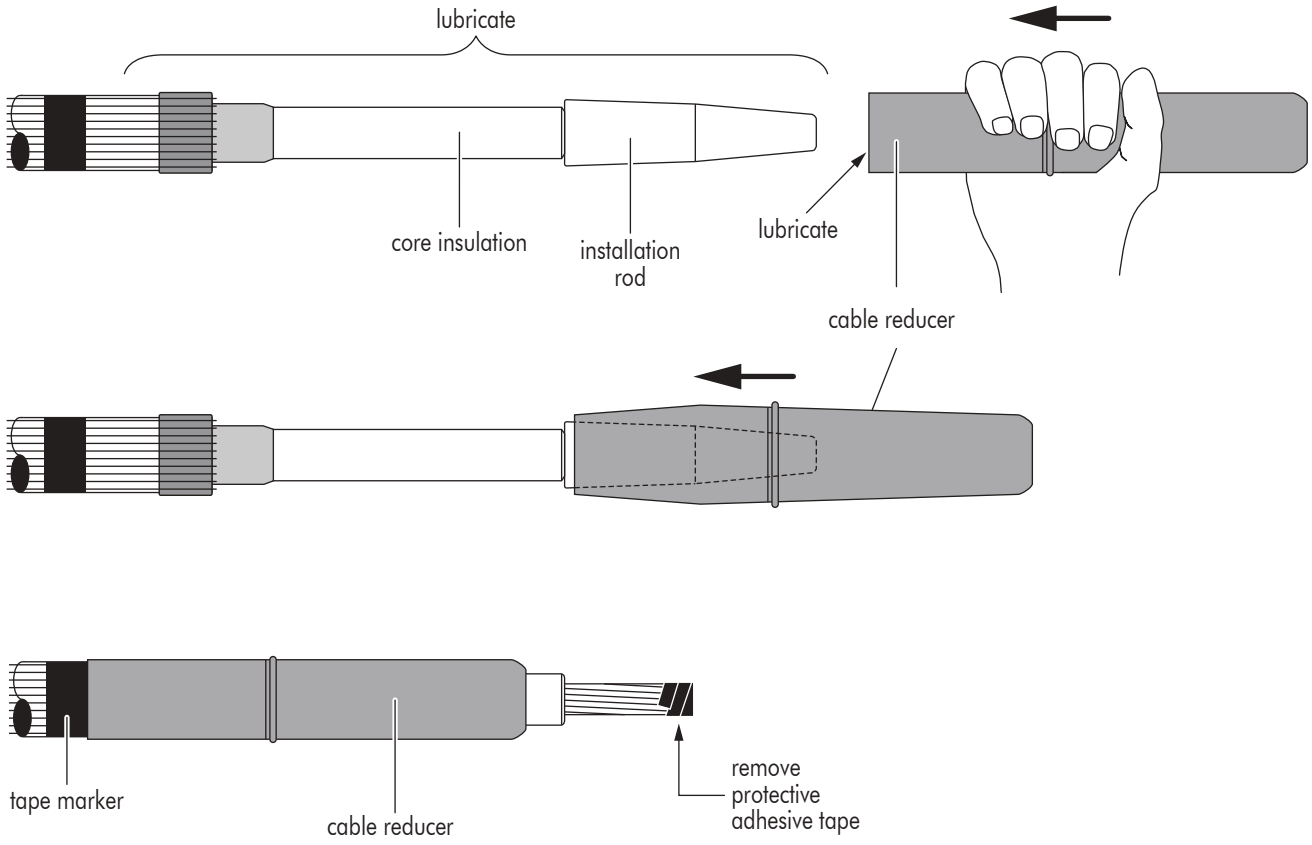


1. Lubricate* the indicated area: core insulation, semi-conductive screen, water sealing mastic and inner surface of the reducer.
2. Slide the reducer down the cable until flush with the tape marker.
3. Remove the protective adhesive tape from the conductor.

For conductor sizes 185 mm² up to 300 mm²



1 Slide the installation rod on to the conductor until it butts against the core insulation.



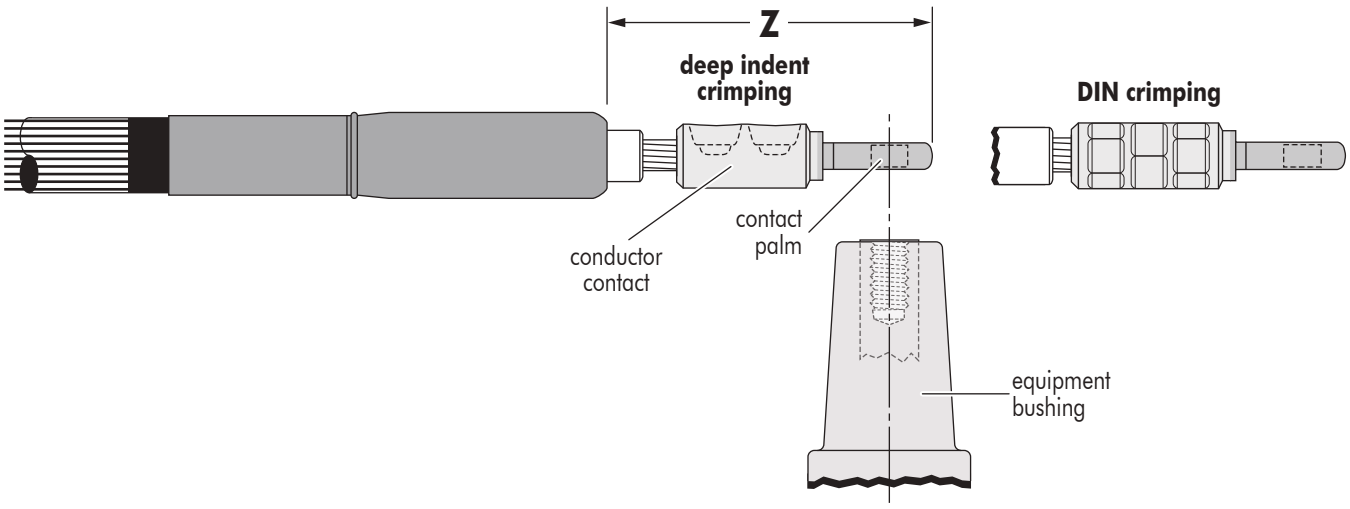
2 **Thoroughly clean installation rod and core insulation.** Always wipe towards the screen wires.
3 Lubricate* the indicated area: installation rod, core insulation, semi-conductive screen, water sealing mastic and inner surface of the reducer.
4 Slide the reducer on to the installation rod.
5 Slide the reducer down the cable until flush with the tape marker. Take care to slide the reducer without hesitation and in one smooth move.
6 Remove installation rod and protective adhesive tape from the conductor.

* USE ONLY THE SILICONE LUBRICANT SUPPLIED

CRIMPING/TIGHTENING OF THE CONTACT

A Compression type contacts (Type TBC-X)

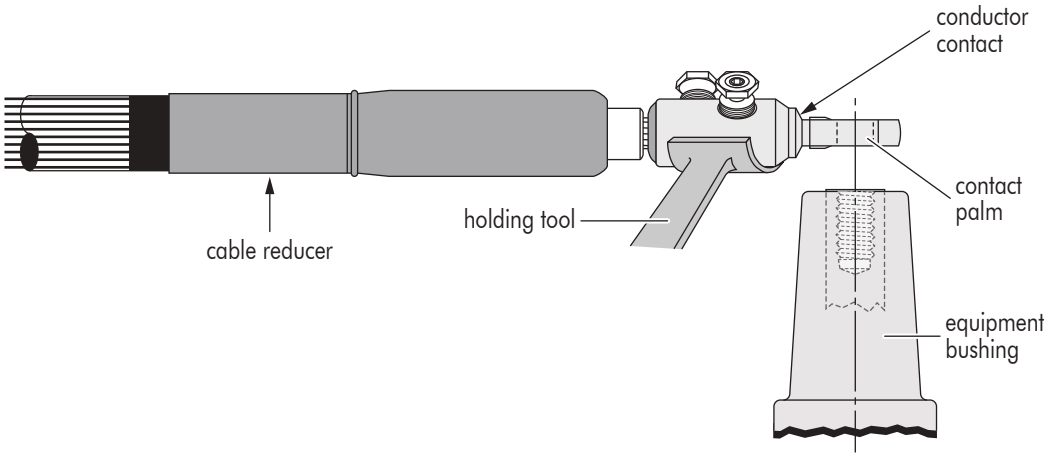
Please refer to the crimp chart supplied with the contact.



1. For aluminium conductors : before installing the conductor contact, wire brush the conductor.
2. Fit the contact on to the conductor.
3. Position the crimp contact taking care that the contact hole aligns with the bushing hole.
4. Prior to crimping distance **« Z »** must be between **145** and **160** mm.
5. Crimp the contact. Please refer to the crimp chart for crimp sequence.
6. After crimping distance **« Z »** must be between **145** and **165** mm.
   If necessary, adjust the position of the cable reducer until distance **« Z »** is within the tolerance range.
7. **Remove any burrs left after crimping and wipe-off excess inhibitor.**

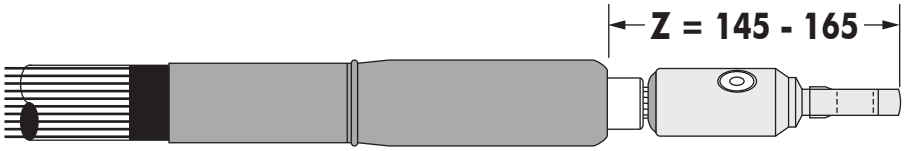
B Mechanical type contacts (Type TMBC-X)

Before tightening



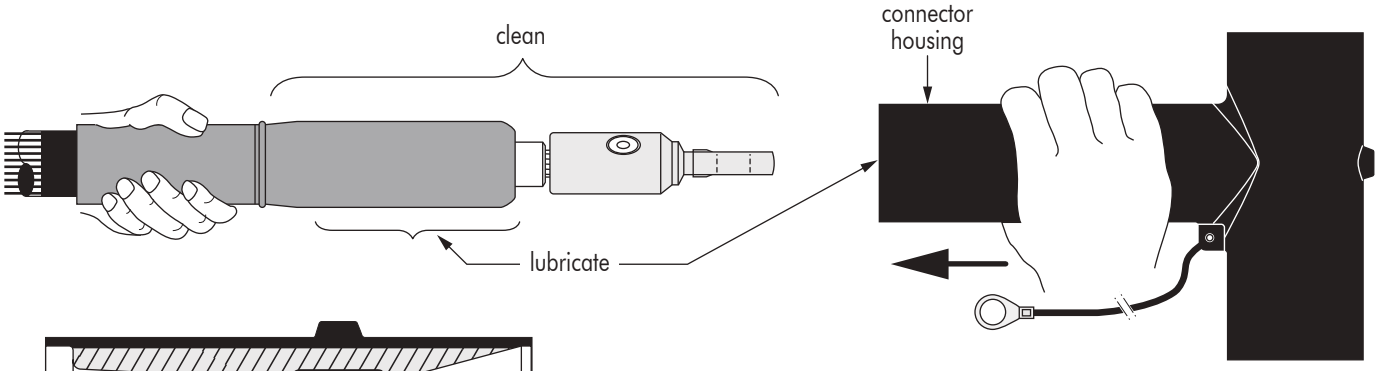
1. For aluminium conductors : before installing the conductor contact, wire brush the conductor.
2. Insert, if necessary, the centre ring into the contact barrel according to the table in the contact installation instruction.
3. Position the contact so that the contact hole aligns with the bushing hole.
4. Tighten the contact. Please refer to the installation instruction included with the contact.
   It is recommended to use a holding tool for ease of installation.

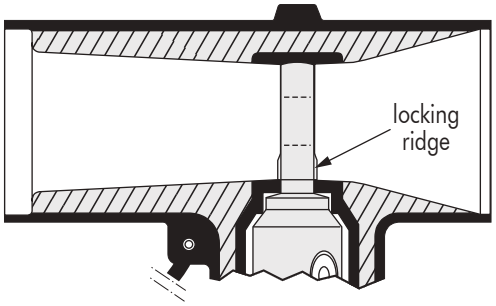
After tightening

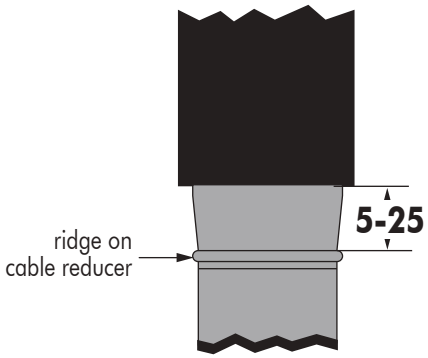


5. After tightening, distance **« Z »** must be between **145** and **165** mm.
   If necessary, adjust the position of the cable reducer until distance **« Z »** is within the tolerance range.

CONNECTOR INSTALLATION ON CABLE

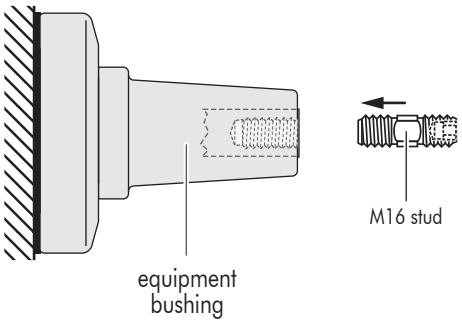




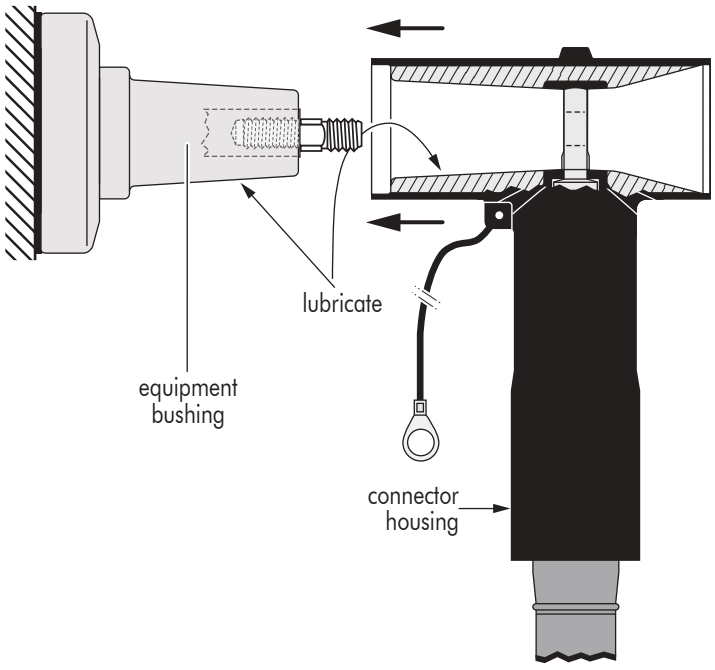


1. **Clean cable reducer, core insulation and contact.**
2. Lubricate* the inside of the connector housing and outer surface of the cable reducer.
3. Check if the **longer interface of the tee connector is pointed towards the bushing.** Whilst preventing the cable reducer from further movement down the cable, gently slide the housing on the cable. Its final position is reached when the centre of the contact spade is along the axis of the interfaces of the connector. **The cable reducer must stay in place during installation.**
4. Make sure the contact spade locks into the connector's housing.
5. Check that the ridge on the cable adapter is sitting at **5-25** mm below the connector housing.

CONNECTOR INSTALLATION ON BUSHING



1. Install M16 threaded stud into the bushing interface.
2. Using a 13 mm wrench or a hex key of 8 mm, tighten the stud exerting **30 Nm** (3 kgm or 22,1 foot-pounds).



3. Clean and lightly lubricate* both connector and bushing interface.
4. Push the connector on to the bushing.

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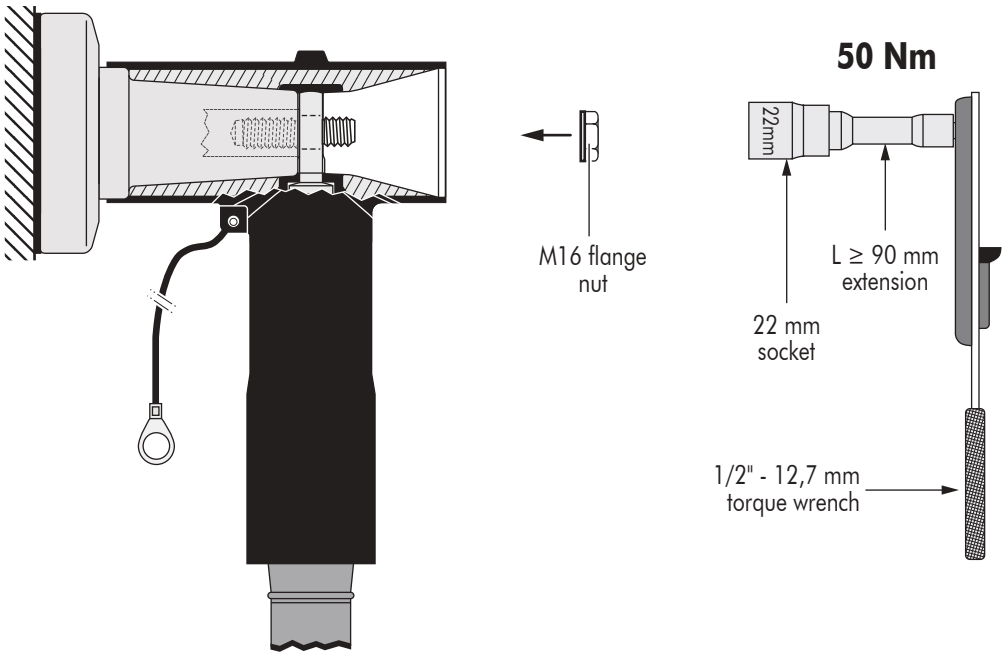
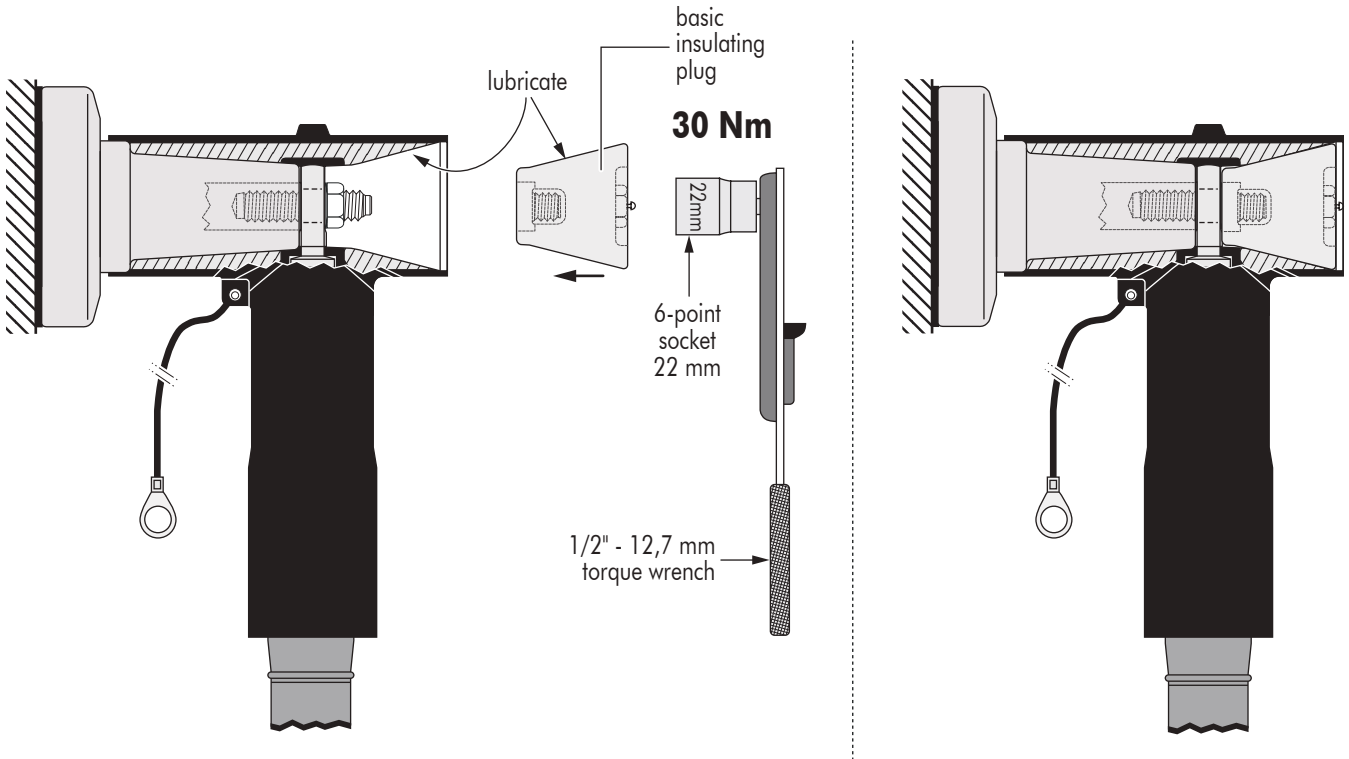


5 Install the M16 flange nut on to the threaded stud.

6 Use torque wrench with extension and socket wrench 22 and tighten exerting **50 Nm** (5 kgm or 36,9 foot-pounds) of torque.

In order to achieve the correct applied torque ensure that there is no lubricant on the threaded parts.



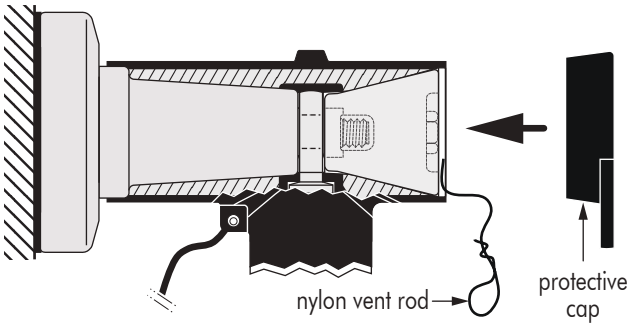
7 Clean and lubricate* the insulating plug for the opposite side of the connector.

8 Insert the plug in the connector and tighten assembly: use a torque wrench with a 6-point socket of 22 mm and tighten exerting **30** Nm (3 kgm or 22,1 foot-pounds) of torque.

In order to achieve the correct applied torque ensure that there is no lubricant on the threaded parts.

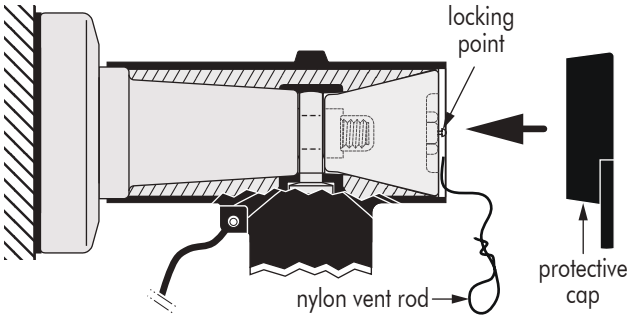
* USE ONLY THE SILICONE LUBRICANT SUPPLIED

INSTALLATION OF THE CAP



Installation on insulating plug BIPR without voltage detection point :

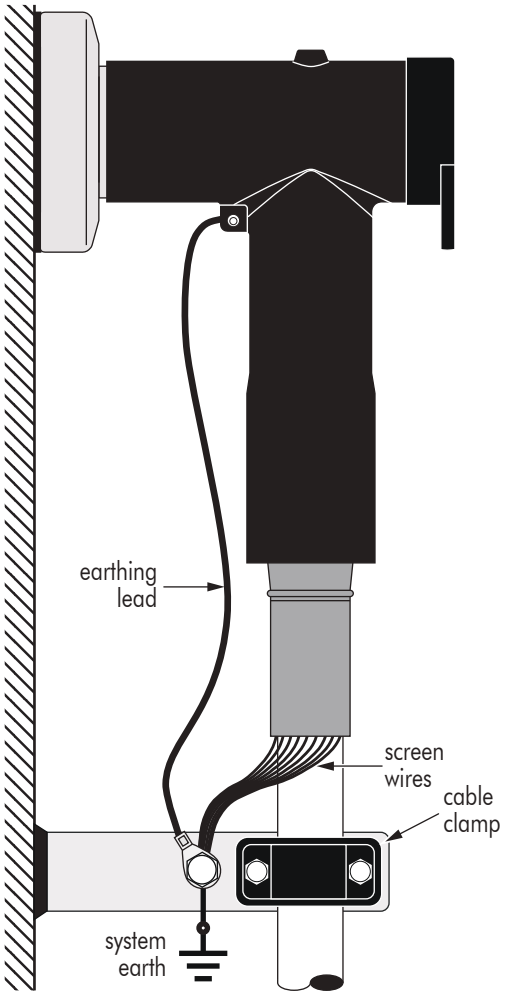
- Clean the inside of the cap and the outside surface of the connector and insulating plug.
- Place the nylon vent rod along the insulating plug (see fig.) to exhaust the air during assembly of the cap.
- Push the cap **firmly** over the connector and onto the insulating plug.
- Press the cap on all sides to make sure it is well positioned over the connector. Position the cap with the pulling tab pointing downwards.
- Remove the nylon vent rod.



Installation on insulating plug BIPA with voltage detection point :

- Clean the inside of the cap and the outside surface of the connector and insulating plug.
- Place the nylon vent rod along the insulating plug (see fig.) to exhaust the air during assembly of the cap.
- Push the cap **firmly** over the connector and onto the insulating plug.
- **Press the centre of the cap onto the locking point until it snaps into place.** Press the cap on all sides to make sure it is well positioned over the connector. Position the cap with the pulling tab pointing downwards.
- Remove the nylon vent rod.

CONNECTOR EARTHING AND CABLE CLAMPING



1. Bend back the screen wires along the outer sheath to form a pig tail.
2. Connect the earthing lead and screen wires to the system earth.

NOTE :
A connector/bushing mated combination should not be allowed to carry the full weight of the cable.
Therefore clamp the cable as close as possible to the connector.

IMPORTANT NOTES :

- **Never disconnect the connector from energised equipment nor energise a disconnected connector without previously installing on its appropriate corresponding mating part.**
- **Do not allow hydrocarbon oils or solvents to contaminate the E.P.D.M. rubber. In the event of contamination, wipe the surface clean with a dry cloth.**