

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

Installation instructions for separable tee connector - type C interface

EUROMOLD®



(K),(M),(P)484TB/G
Up to 42 kV









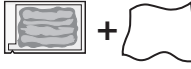






Only to be used on copper wire screened cable with
extruded easy strip semi-conductive screen and stranded circular conductors
of copper or aluminium.

For conductor cross sections 630 mm² only

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
611CA-37	39.0	48.5

Required components for the connector installation :

 3 x 484TB/G tee connector	 3 x Cable reducer 611CA-32	 3 x Clamping screw - 430TCS	 +  3 x Conductor contact - TMBC-400 Installation instructions	
 1 x Nylon vent rod	 3 x Basic insulating plug + cap - 800BIPA	 1 x Installation rod (not included in the kit)	 +  Silicone grease + wet tissue	 Gloves
 Roll adhesive tape	 Field control mastic, type MFC-RLT	 Water sealing mastic, type MWS (outdoor applications)	 Installation instructions	

Risk assessment :

Hazard	Cause	Precaution
Cut fingers or hands	Sharp ends of Cu wire screens. Sharp edges of knives, or blades of cable preparation tools.	Tape ends of Cu wire screens down to the sheath. Use gloves. Take extra care handling sharp items.
Back, arm or wrist strain	Installation of cable adapter.	Ensure you position yourself comfortably over/around the cable adapter when installing to ensure no unnecessary strain.

Before Starting

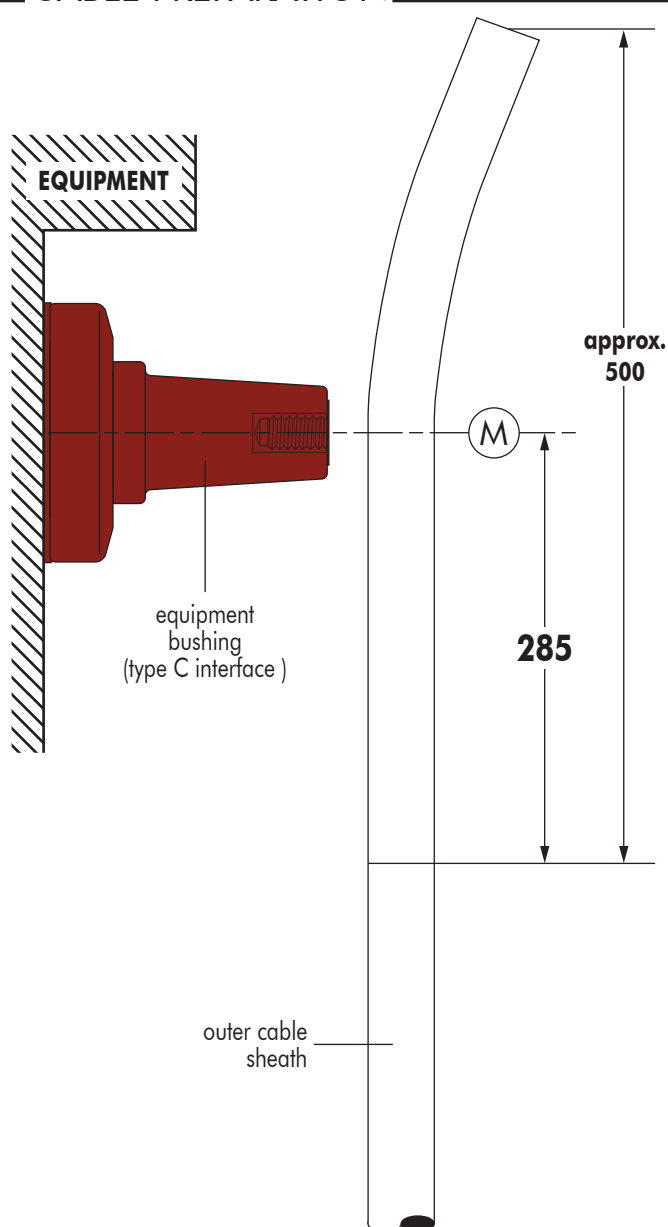
- Ensure the components in the kit are correct for the cable. The cable adapter and cable lug have the ranges on the label.
- Cross check the label on the box with the title of the instruction.
- Some procedures may have changed since you last installed the product. Ensure you read the instruction thoroughly.

Sheath test all cables prior to all jointing work. Megger all cables (5 kV).

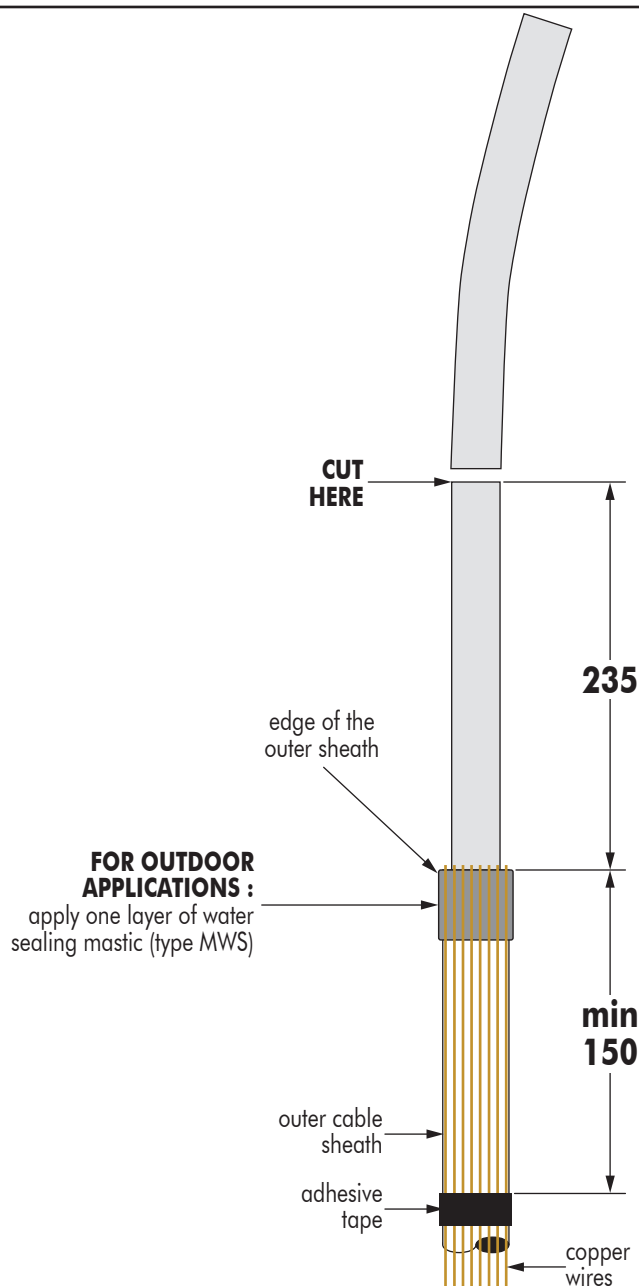
Route km	Screen to earth Minimum values		Core to earth Minimum values	
km	Giga Ohms	Micra Amps	Giga Ohms	Micra Amps
0.25	1	5	4	1.25
0.5	1	5	3	1.66
	Mega Ohms		Mega Ohms	
0.5-1	500	10.0	2000	2.5
2	500	10.0	2000	2.5
3	340	14.7	1332	3.75
4	260	19.2	1000	5.0
5	200	25.0	800	6.25
6	166	30.7	666	7.5
7	142	35.2	572	8.7
8	124	40.3	500	10.0
9	110	45.4	444	11.2
10	100	50.0	400	12.5
11	90	55.5	364	13.7
12	82	60.9	334	14.9
13	76	65.7	308	16.2
14	72	69.4	286	17.4
15	66	75.7	266	18.7
16	62	80.6	250	20.0
17	58	86.2	236	21.1
18	54	92.5	222	22.5
19	52	96.1	210	23.8

NB : Only one phase is shown in these instructions. Make off all three phases the same way. Use a cable conversion kit for 3-core cables.

CABLE PREPARATION



- 1** Train the cable into the approximate finished position next to the equipment bushing.
- 2** Mark the centre line « **M** » of the bushing.
- 3** Remove the outer cable sheath to a point **285** mm from the centre line « **M** » of the bushing. If there is a tubular metallic screen underneath the outer sheath, remove it together with the outer sheath.
- 4 For indoor applications:**
Bend the screen wires back over the outer sheath and proceed to step no. 5.

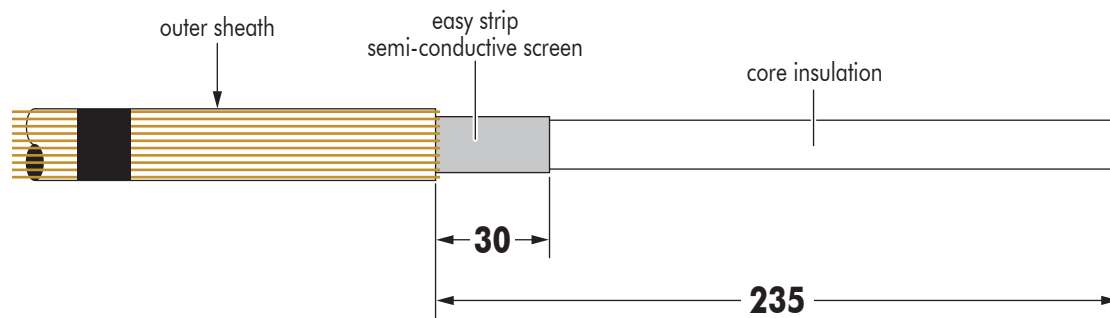


For outdoor applications :

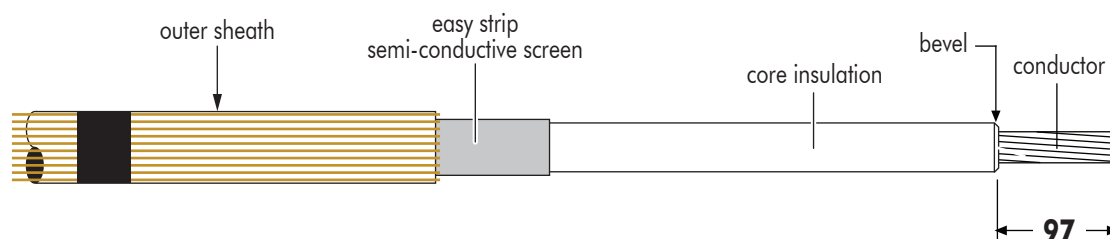
- Wrap one layer of water sealing mastic (type MWS) around the outer sheath, flush with the end (**25** mm minimum width). Completely encircle the cable.
- Bend the screen wires back over the mastic and along the outer sheath, pressing them into the mastic.

IMPORTANT : screen wires should not touch each other when pressed into the mastic to prevent water ingress.

- 5** Using adhesive tape, fix the screen wires at a distance of min **150** mm from the edge of the outer sheath.
- 6** Cut the cable to a point **235** mm from the outer sheath.

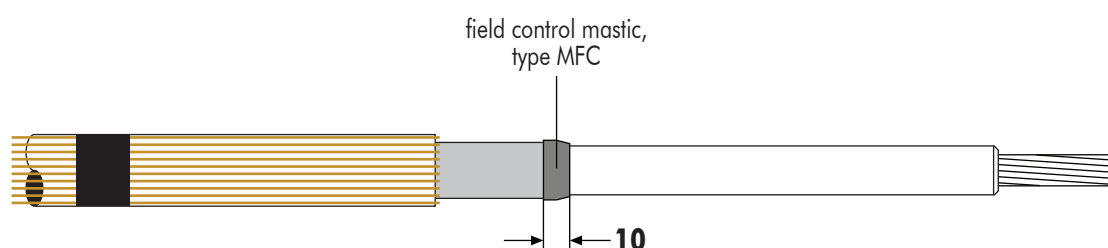


- 1 Check distance of **235** mm.
- 2 Remove the easy strip semi-conductive screen to a point **30** mm from the outer sheath. Cut squarely taking care not to cut the core insulation.

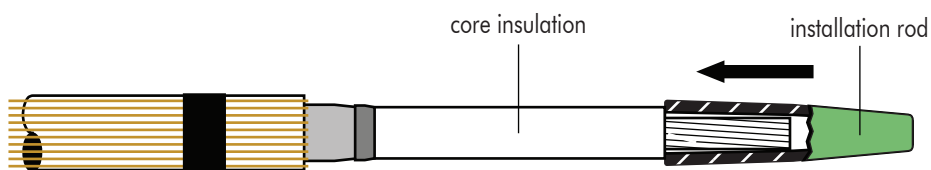


- 3 Remove the core insulation from the conductor for a distance of **97** mm.
- 4 For aluminium conductors : before installing the crimp contact, wire brush the conductor.
- 5 Slightly bevel the edge of the core insulation. **Do not sharpen in cone-shape. Thoroughly clean core insulation.** Always wipe towards the screen wires.

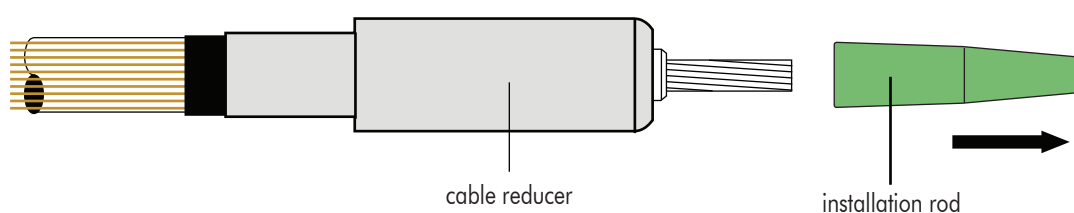
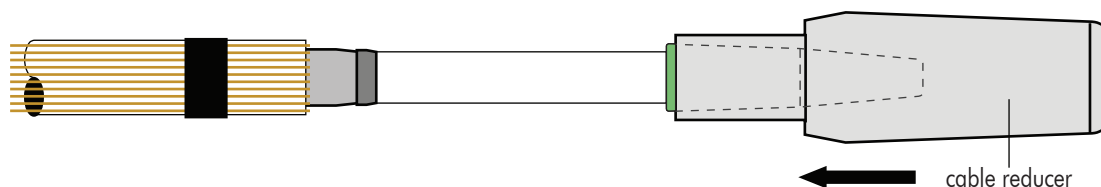
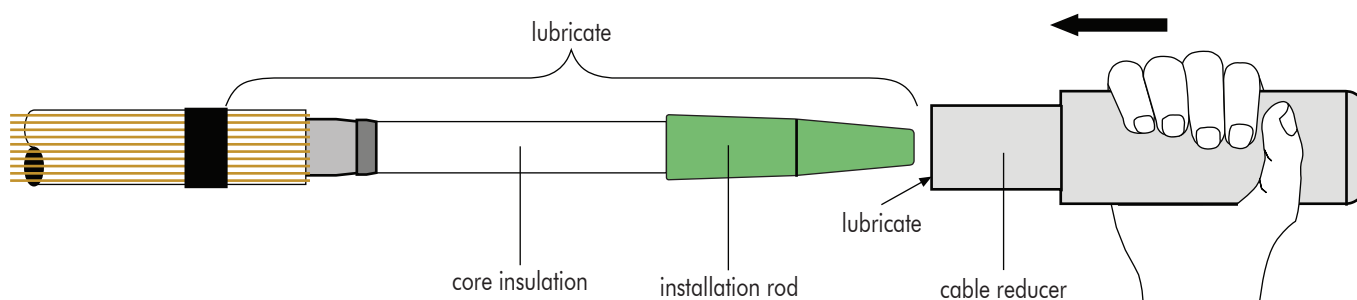
INSTALLATION OF THE CABLE REDUCER



- 1 Remove field control mastic strip, type MFC, from coated paper.
- 2 Slightly stretch one end of the strip, making sure not to break it.
- 3 Apply the mastic, covering approximately **5** mm of the extruded semi-conductive screen and **5** mm of the core insulation.
- 4 Push the mastic in place while stretching it progressively until both ends overlap and tear-off the excess mastic.
- 5 Using the coated side of the paper, squeeze the mastic tightly in place on the step of the semi-conductive screen.



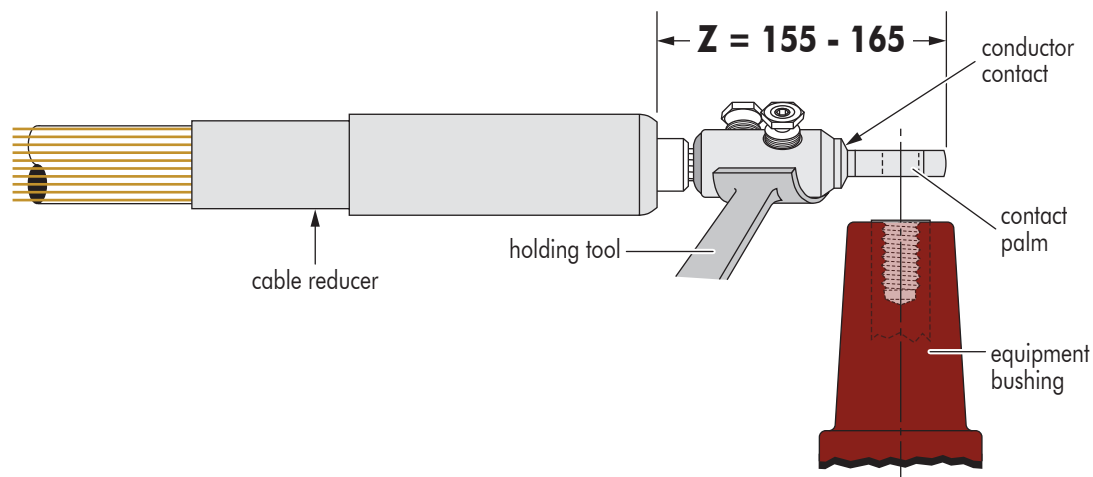
- 6** Slide the installation rod on to the conductor until it butts against the core insulation.



- 7 Thoroughly clean installation rod and core insulation.** Always wipe towards the screen wires.
8 Lubricate* core insulation, installation rod and the inside surface of the cable reducer.
9 Slide the reducer on to the installation rod.
10 Slide the reducer down the cable. Take care to slide the reducer without hesitation and in one smooth move.
11 Remove the installation rod.

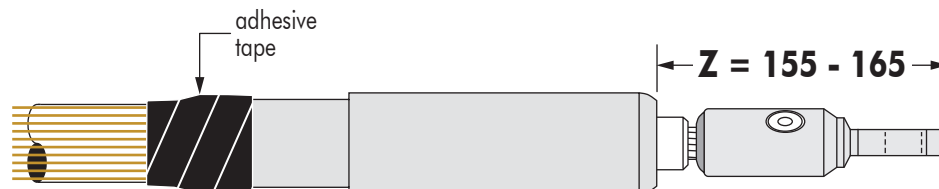
TIGHTENING OF THE CONTACT

Before tightening



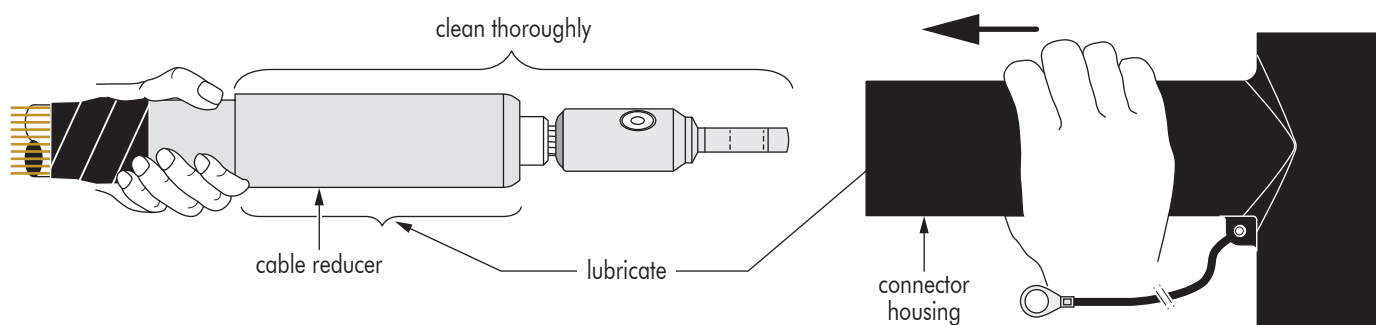
- 1 For aluminium conductors : before installing the contact, wire brush the conductor.
- 2 Fit the contact on to the conductor.
- 3 Position the contact taking care that the contact hole aligns with the bushing hole.
- 4 Before tightening the contact, distance "Z" must be between **155** and **165** mm.
- 5 Tighten the contact.

After tightening



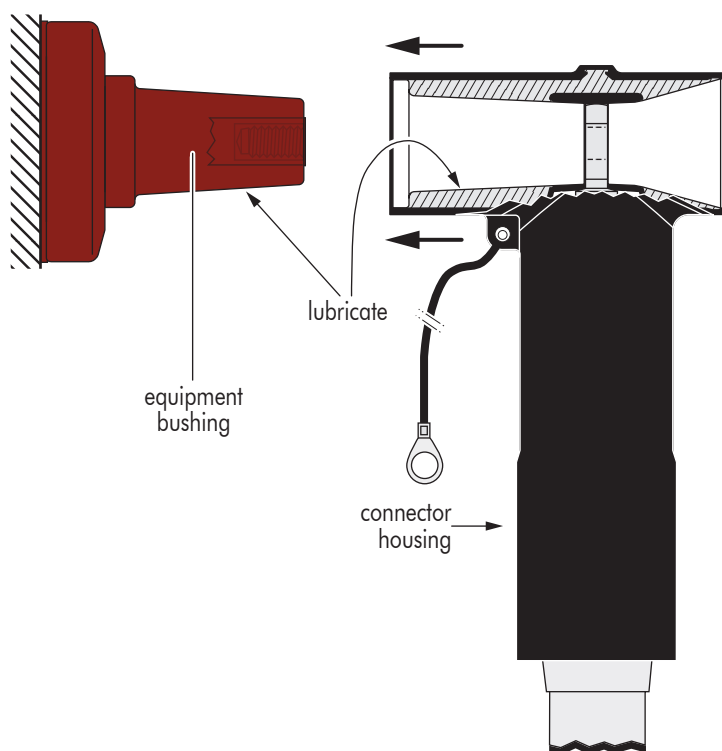
- 6 After tightening, distance « Z » must be between **155** and **165** mm.
Wipe-off excess inhibitor and remove any burrs resulting from tightening.
 If necessary, adjust the position of the cable reducer until distance « Z » is within the tolerance range.
 Using adhesive tape, secure the cable reducer.

CONNECTOR INSTALLATION ON CABLE

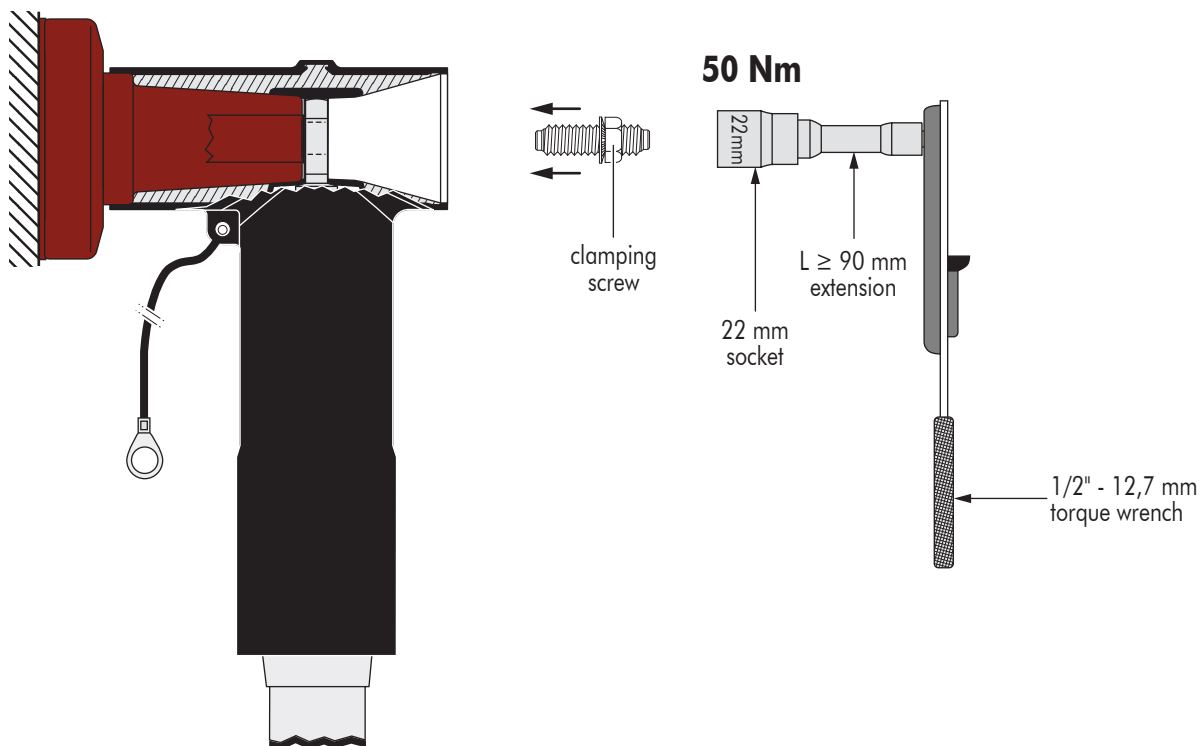


- 1 **Clean cable reducer, core insulation and contact.**
- 2 Lubricate* the inside of the connector housing and outer surface of the cable reducer.
- 3 Check if the **longer interface of the tee connector is pointed towards the bushing**. Whilst preventing the cable reducer from further movement down 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.**

CONNECTOR INSTALLATION ON BUSHING

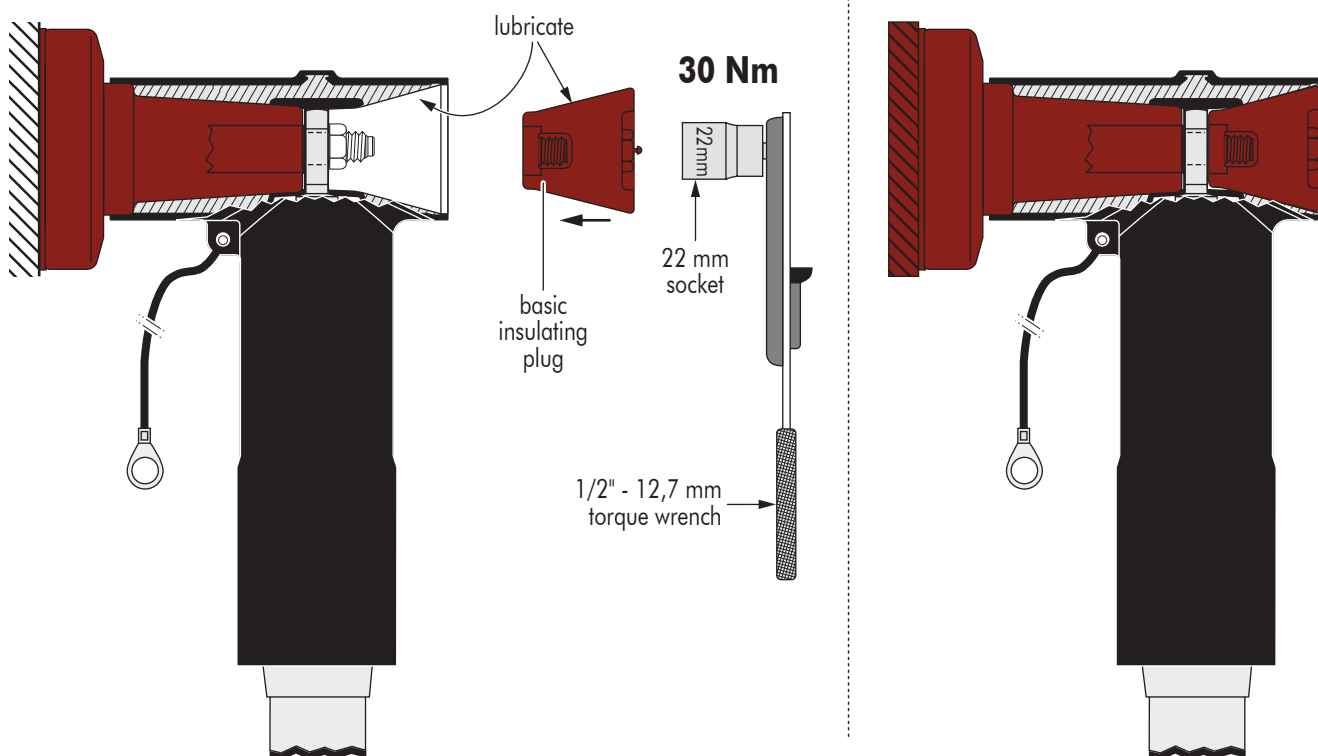


- 1 Clean and lightly lubricate* both connector and bushing interface.
- 2 Push the connector on to the bushing.



- 3 Insert clamping screw into the threaded hole of the bushing.
- 4 Use a torque wrench with a 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.

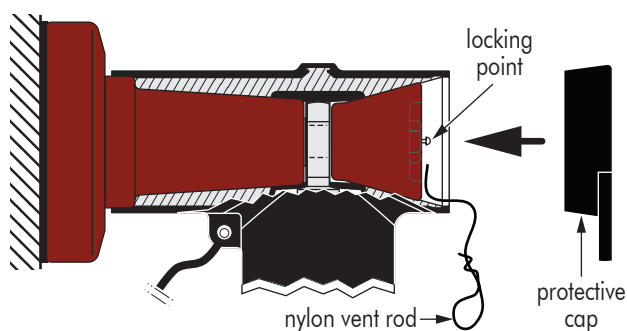
INSTALLATION OF THE BASIC INSULATING PLUG



- 1 Clean and lubricate* the insulating plug for the opposite side of the connector.
- 2 Insert the plug in the connector and tighten assembly : use torque wrench with socket of 22 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

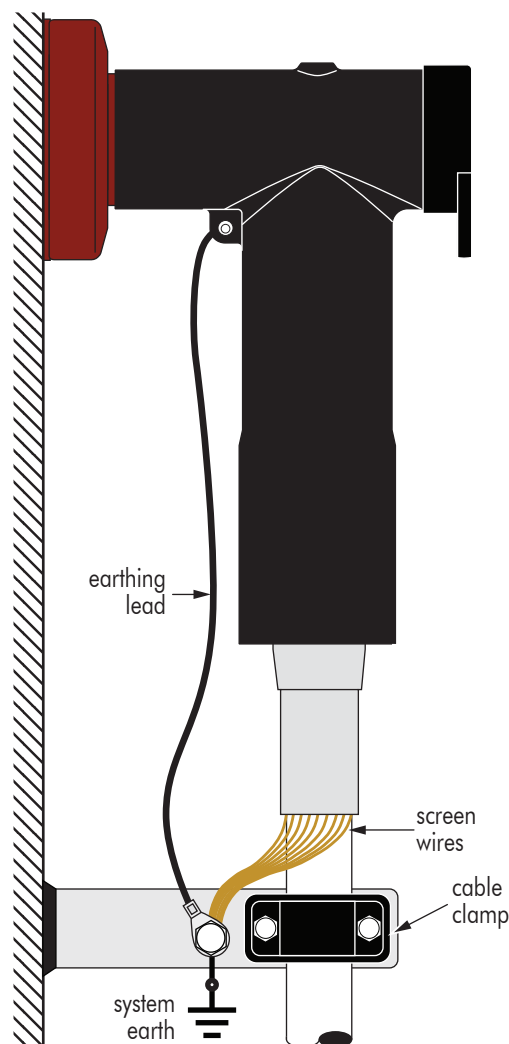
INSTALLATION OF THE CAP



Installation on insulating plug:

- 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 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 it is necessary to 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.