

General information:

- Our metric-size cable glands are provided as standard with an O-ring on the connecting thread.
- Before initial operation of the facilities, the assembly is to be checked to see that it conforms to these installation instructions, to the applicable national and international standards, as well as those applicable to the use in question.
- Suitable tools must be used for the assembly; furthermore, the installation may only be carried out by qualified electricians or by trained staff.
- Any modification which differs from the condition as delivered is not permitted.
- In order to fulfill explosion protection type Ex-d, the cable used must be round and compact (cf. IEC 60079-14 Para. 10.2). The cables must also take into consideration in particular the Regulations as per EN 60079-14 Section 9.5.2. Observe the Regulations of EN 60079-14 on direct insertion into the Ex-d area.
- At the specified maintenance intervals it is recommended to check the compression fittings and tighten as necessary.
- The use of cables without armor or alternatively the use of cables with shielding braid is only permitted for permanently installed power lines (25%).
- In the case of NPT connecting threads, the end-user must ensure that the necessary IP protection is guaranteed; this can be done using a suitable thread sealing agent.
- When installing the cable gland through bore holes, care should be taken that the maximum diameters are not exceeded.
- The cable glands are provided with a sealing ring with an axial sealing height of at least 5 mm. With reference to the clearance groove, the end-user should ensure that at least five complete turns of the connector thread are made. In order to guarantee a screw depth of 8 mm, the enclosure should have a wall thickness of min. 10 mm ; if <10 mm, then if necessary, use a washer when cable entries are attached to the pressure-resistant enclosure.
- When determining the temperature ranges of the device in the dust Ex-area, the Regulations of EN 60079-0 and EN 60079-31 must be taken into consideration.

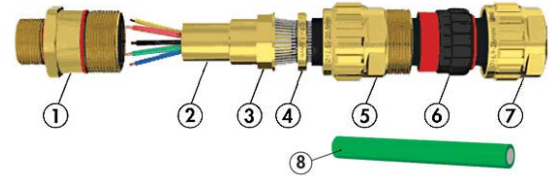
Accessories available upon request:

- Lock Nut
 - Serrated Washer
 - Earth Tag
 - PVC Shroud
 - IP Washer
- September 2011



Sealcon LLC • 14853 E. Hinsdale Avenue Centennial, CO 80112-4240 USA
<http://www.sealconex.com> • 800-456-9012 / 303-699-1135

Assembly Instructions



Operating Temperature Range: - 60°C to 105°C (- 76°F to 221°F)

Components:

1. Entry Component
2. Compound Sleeve
3. Interlocking Armour Cone
4. Armour Clamping Ring
5. Gland Body
6. Outer Sheath Sealing
7. Dome Nut
8. Compound

Certification Details:

Gland Type: EXIOS Barrier
 I M2 Ex d I Mb/Ex e I Mb
 II 2G Ex d IIC Gb/Ex e IIC Gb
 II 1D Ex ta IIC Da IP 66/67/68
 IECEx: Nr. Sir 11.0044X
 ATEX: Nr. Sira ATEX 1110X

EN 60079-0/2009 IEC 60079-0:2007-10
 EN 60079-1/2007 IEC 60079-1:2007-4
 EN 60079-7/2007 IEC 60079-7:2006-7
 EN 60079-31/2009 IEC 60079-31:2008

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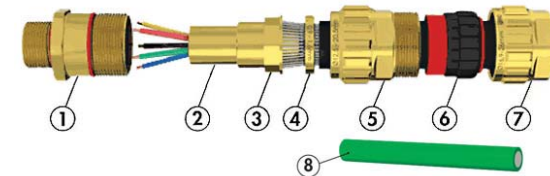
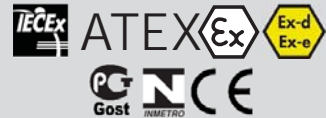
Accessories available upon request:

- Lock Nut
 - Serrated Washer
 - Grounding (Earth) Tag
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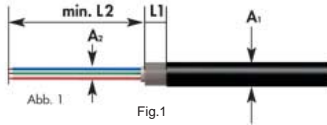
1. Entry Component
2. Compound Sleeve
3. Interlocking Armour Cone
4. Armour Clamping Ring
5. Gland Body
6. Outer Sheath Sealing
7. Dome Nut
8. Compound

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EN 60079-0/2009 IEC 60079-0:2007-10
 EN 60079-1/2007 IEC 60079-1:2007-4
 EN 60079-7/2007 IEC 60079-7:2006-7
 EN 60079-31/2009 IEC 60079-31:2008

Step 1



Step 1

The cable is to be prepared as shown in Fig. 1. Measurements L1 and L2 should be kept to. Measurement L1 can be read off in the Table 1. Choose measurement L2 depending on the installation.

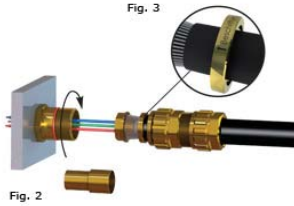
Step 2

The cable gland is delivered with 2 armour clamping rings. Choose the appropriate clamping ring as per Table 1; the other one must not be used. Remove the brass compound tube. After that, prepare the installation as in Fig. 2. Care should be taken with the

Step 3

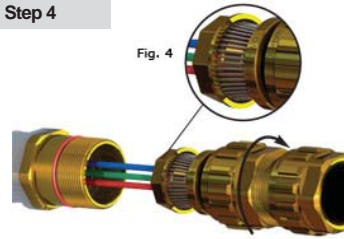
Install the entry component on the device or housing in question (~15Nm). The end-user is responsible for ensuring that, at the point of installation, the adapter for the entry component has been made ready in accordance with Regulations. The entry component can be provided with a locknut to keep it from working loose.

Step 2



Size Type	Thread Metric	Thread NPT	Ø	Armor Range ± 0.1 inches (mm)		Clamping Ring 1	Clamping Ring 2	Ring 3 Optional	L1	Nm
				Ø A1	Ø A2					
20 - 1	M16 x 1.5	3/8"	.87 (22)	24 - 47 (6 - 12)	.12 - .32 (3 - 8.1)	0 - 0.03 (0 - 0.7)	0.03 - 0.05 (0.7 - 1.25)	-	0.79 (20)	15
	M20 x 1.5	1/2"	.94 (24)	.35 - .63 (9 - 16)	.24 - 47 (6 - 12)	0 - 0.03 (0 - 0.7)	0.03 - 0.05 (0.7 - 1.25)	-	0.79 (20)	17
20 - 2	M20 x 1.5	1/2"	1.18 (30)	.49 - .81 (12.5 - 20.5)	.35 - .55 (9 - 14)	0 - 0.03 (0 - 0.7)	0.03 - 0.06 (0.7 - 1.4)	-	0.79 (20)	20
	M25 x 1.5	1/2"	1.42 (36)	.67 - 1.02 (16.9 - 26)	.49 - .81 (12.5 - 20.5)	0 - 0.03 (0 - 0.7)	0.04 - 0.06 (0.9 - 1.6)	0.03 - 0.06 (0.7 - 1.4)	0.79 (20)	35
25	M25 x 1.5	3/4"	1.81 (46)	.87 - 1.30 (22 - 33)	.67 - 1.02 (16.9 - 26)	0 - 0.03 (0 - 0.7)	0.05 - 0.08 (1.3 - 2.0)	0.03 - 0.06 (0.7 - 1.4)	1.18 (30)	60
	M32 x 1.5	1"	2.17 (55)	1.10 - 1.61 (28 - 41)	.87 - 1.30 (22 - 33)	0 - 0.03 (0 - 0.7)	0.05 - 0.08 (1.3 - 2.0)	0.03 - 0.06 (0.7 - 1.4)	1.18 (30)	80
40	M40 x 1.5	1 1/4"	2.60 (65)	1.42 - 2.07 (36 - 52.6)	1.14 - 1.75 (28.9 - 44.4)	0 - 0.04 (0 - 1.0)	0.06 - 0.10 (1.5 - 2.5)	0.04 - 0.08 (1.0 - 2.0)	1.38 (35)	72
	M50 x 1.5	2"	3.15 (80)	1.81 - 2.57 (46 - 65.3)	1.57 - 2.22 (39.9 - 56.3)	0 - 0.04 (0 - 1.0)	0.06 - 0.10 (1.5 - 2.5)	0.04 - 0.08 (1.0 - 2.0)	1.57 (40)	80
63	M63 x 1.5	2 1/2"	3.74 (95)	2.24 - 3.07 (57 - 78)	1.99 - 2.69 (50.5 - 68.2)	0 - 0.04 (0 - 1.0)	0.06 - 0.10 (1.5 - 2.5)	0.04 - 0.08 (1.0 - 2.0)	1.77 (45)	150
	M75 x 1.5	3"	3.74 (95)	2.24 - 3.07 (57 - 78)	1.99 - 2.69 (50.5 - 68.2)	0 - 0.04 (0 - 1.0)	0.06 - 0.10 (1.5 - 2.5)	0.04 - 0.08 (1.0 - 2.0)	1.77 (45)	150

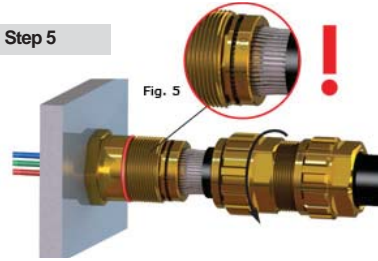
Step 4



Step 4

Position the armour of the cable so that all parts of the armour are in contact with the armour cone (Fig.4) and the ends of the armour touch the edge of the armour cone. Now screw the gland body hand-tight on the entry component. It helps if, while doing so, the cable is pushed slightly in towards the device or the housing. Finally, with the appropriate opened spanner, tighten fast in order to securely clamp the armour.

Step 5



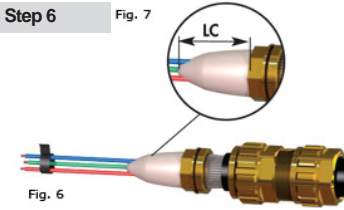
Step 5

After that, loosen the gland body and check for correct seating of the armour (Fig. 5). The armour must be firmly clamped. If need be, repeat step 4.

Preparing the Compound:

Please check the compound's expiry date and take note of the contents of the attached Safety Data sheet. Use the protective gloves included, as well as suitable eye protection. The compound can be applied at temperatures between +10°C and +40°C. Application is ideally carried out at room temperature (+20°C). Processing time is approx. 15 min. Please see Table 2 for Cure Time of the Compound.

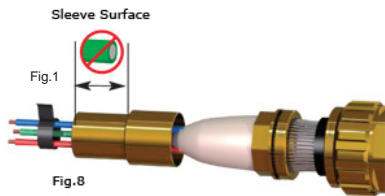
Step 6



Step 6

Mix and knead the appropriate quantity of compound for the job until a completely uniform colour is achieved. Now, as in Fig. 6, apply the compound between and around the individual conductors. Filling the sleeve completely is easy if the compound has first of all been given a conical shape as in Fig. 7. To stop the conductors moving out of place, they should be fixed with tape.

Step 7



Step 7

Now push the sleeve and the armour cone together. This causes the compound to be compressed. Remove the excess compound which squeezes out. Care should be taken that the sleeve has been filled right up to the end. The outside of the sleeve is to be kept clean; if necessary, clean the surface.

Step 8



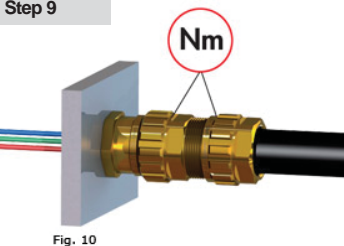
Step 8

The cable can now be inserted into the entry component. The sleeve should be inserted carefully.

Fig. 4

Size Type	Thread Metric	Thread NPT	Ø	Armor Range ± 0.1 inches (mm)		Clamping Ring 1	Clamping Ring 2	Ring 3 Optional	L1	Nm
				Ø A1	Ø A2					
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63	M63 x 1.5	2 1/2"	3.74 (95)	2.24 - 3.07 (57 - 78)	1.99 - 2.69 (50.5 - 68.2)	0 - 0.04 (0 - 1.0)	0.06 - 0.10 (1.5 - 2.5)	0.04 - 0.08 (1.0 - 2.0)	1.77 (45)	150
	M75 x 1.5	3"	3.74 (95)	2.24 - 3.07 (57 - 78)	1.99 - 2.69 (50.5 - 68.2)	0 - 0.04 (0 - 1.0)	0.06 - 0.10 (1.5 - 2.5)	0.04 - 0.08 (1.0 - 2.0)	1.77 (45)	150

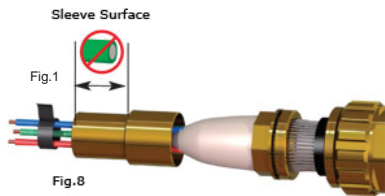
Step 9



Step 9

After the entry component and the gland body have been screwed up again as per Step 4 (Nm), the dome nut can now be tightened. To speed up assembly, it can be tightened by hand to start with. Then tighten up using an opened spanner (Nm).

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Now push the sleeve and the armour cone together. This causes the compound to be compressed. Remove the excess compound which squeezes out. Care should be taken that the sleeve has been filled right up to the end. The outside of the sleeve is to be kept clean; if necessary, clean the surface.

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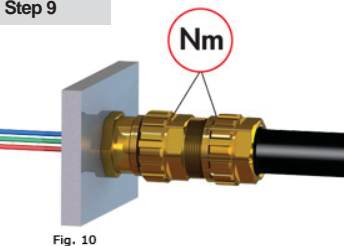
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