





Assembly Instruction







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

Operating temperature range -13°F to 185°F (-25°C to 85°C)

Protection

IP 66, 67, 68 (5 bar)

Certification Details: EXIOS Barrier UL File: E351373 Class I, Division 1 & 2, Groups C and D Class II, Division 1 & 2, Groups E, F and G Class III Class I, Zone 1, AEx d IIB Class I, Zone 1, AEx e II

For use with armored braided marine shipboard cable

Class I, Division 2, Groups C and D Class II, Division 2, Groups F and G Class III For use with unarmored marine shipboard cable

UL 2225 3rd Edition UL 514B 6th Edition CSA C22.2 No. 174-M1984 CSA C 22.2 No. 18.3





Marking

The products and / or their smallest packaging units are marked as specified below. Products marked otherwise may not be used under this type-examination certificate. Non-compliance shall void the manufacturer's liability.

- Manufacturer's name or Trademark
- E351373 (only on packaging)
- Class I, Div 1 CD; Class II Div 1 EFG; Class III
- Class I, Zone 1, AEx d IIB
- Class I, Zone 1, AEx e II
- · Type and connecting thread size
- - 25 °C \leq Ta \leq +85 °C
- Clamping range

Safety

The products may only be used within the specified temperature range. The manufacturer shall not be liable for damage caused by use in non-specified fields of application. Only qualified personnel may carry out work in hazardous areas. All relevant regulations must be observed in this case!

Resistance/Endurance The products consist of:

Body of gland: Gasket and O-ring: Brass /plated brass / stainless steel Silicone







Recommended torque only refer to inspection specifications acc. to listed
standards. Individual torques may differ due to type and character of the cable.

Step 1

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

Important

The EXIOS Barrier Cable Gland is typically designed for use with armored cables. However it is also possible and permitted to use with NON-ARMORED cables. In this case it is important to use one clamping ring as a spacer for the installation!

Step 2

The cable gland is delivered with 2 armor 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 correct installation of the armor clamping ring, Fig. 3.

Step 3

Install the entry component on the device or housing in question 11.06 Lb-Ft (~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.

	AG						Armor Acceptance Range		Inch (mm)			0
Size	м	NPT	¥	mm A₁ ∤Øk	max. mm A₂ ¥ØK	max. no. of cores	ring l	ring II	ring III (optional)	L1 mm	LC mm	Nm
20-1	M 20		.087 (22)	0.24-0.47 (6-12)	0.31 (7.9)	8	0-0.03 (0.0-0.7)	0.03-0.05 (0.7 - 1.25)	-	.79 (20)	.98 (25)	8
20-2	M20	1/2"	0.94 (24)	0.35-0.63 (9-16)	0.35 (8.8)	10	0-0.03 (0.0-0.7)	0.03-0.05 (0.7 - 1.25)	-	.79 (20)	1.38 (35)	8
20-3	M20 M25	1/2"	1.18 (30)	0.49-0.81 (12.5-20.5)	0.45 (11.5)	15	0-0.03 (0.0-0.7)	0.03-0.06 (0.7 - 1.4)	-	.79 (20)	1.38 (35)	12
25	M 25	3/4"	1.42 (36)	0.67-1.02 (16.9-26)	0.65 (16.4)	25	0-0.03 (0.0-0.7)	0.04-0.06 (0.9 - 1.6)	0.03-0.06 (0.7 - 1.4)	.79 (20)	1.38 (35)	18
32	M 32	1"	1.81 (46)	0.87-1.30 (22-33)	.84 (21.4)	45	0-0.03 (0.0-0.7)	0.05-0.08 (1.3 - 2.0)	0.03-0.06 (0.7-1.4)	1.18 (30)	1.38 (35)	30
40	M 40	1 1/4" 1 1/2"	2.17 (55)	1.10-1.61 (28-41)	1.09 (27.65)	70	0-0.03 (0.0-0.7)	0.05-0.08 (1.3 - 2.0)	0.03-0.06 (0.7-1.4)	1.18 (30)	1.38 (35)	50
50	M 50	2"	2.56 (65)	1.41-2.07 (36-52.6)	1.48 (37.5)	85	0-0.04 (0.0-1.0)	0.06-0.10 (1.5 - 2.5)	0.04-0.8 (1.0-2.0)	1.38 (35)	1.77 (45)	60
63	M 63	2 1/2"	3.15 (80)	1.81-2.57 (46-65.3)	1.86 (47.3)	120	0-0.04 (0.0-1.0)	0.06-0.10 (1.5 - 2.5)	0.04-0.8 (1.0-2.0)	1.57 (40)	1.77 (45)	65
75	M75	3"	3.74 (95)	2.24-3.07 (57-78)	2.28 (58.0)	150	0-0.04 (0.0-1.0)	0.06-0.10 (1.5 - 2.5)	0.0408 (1.0-2.0)	1.77 (45)	1.77 (45)	135

Table 1

Dimensions and specifications may be changed without prior notice.











Step 4

Position the armor of the cable so that all parts of the armor are in contact with the armor cone (Fig.4) and the ends of the armor touches the edge of the armor 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 open-ended spanner, tighten fast in order to securely clamp the armor.

Step 5

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

Preparing the Compound:

Please check the compound's expiration 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 $+10^{\circ}$ C and $+40^{\circ}$ C. Application is ideally carried out at room temperature ($+20^{\circ}$ C). Processing time is approx. 15 min. Please see Table 2 for Cure Time of the Compound.

Step 6

Mix and knead the appropriate quantity of compound for the job until a completely uniform color is achieved. 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 can be fixed with tape.







Step 7

Push the sleeve and the armor 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. 9) Now screw the gland body hand tight on the entry component. Allow compound to cure. Conductors should not be disturbed until compound has cured.



Step 9

After the compound has cured, the gland body and the dome nut can be tightened fast with an open-ended spanner (Nm).













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.
- At the specified maintenance intervals it is recommended to check the compression fittings and tighten as necessary.
- 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.
- Marine Shipboard Cable Sealing Fittings for use in Class I, Groups C and D; Class II, Groups E, F, and G; Class III Hazardous Locations with armored braided marine shipboard cable employing aluminum, bronze, copper, or stainless steel bonding braid and Polymeric Systems Inc. Kneadaseal sealing compound.

Thread sizes 1/2 to 3 in. NPT inclusive or M 20 to M 75 inclusive, for vertical or horizontal mounting.

• Marine Shipboard Cable Sealing Fittings for use in Class I, Division 2, Groups C, and D; Class II, Groups F and G; Class III Hazardous Locations with unarmored marine shipboard cable and Polymeric Systems Inc. Kneadaseal sealing compound.

Thread sizes 1/2 to 3 in. NPT inclusive or M 20 to M 75 inclusive, for vertical or horizontal mounting.

Accessories available upon request:

- · Lock Nut
- · Serrated Washer
- · Earth Tag
- PVC Shroud
- IP Washer



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Setting Standards

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