

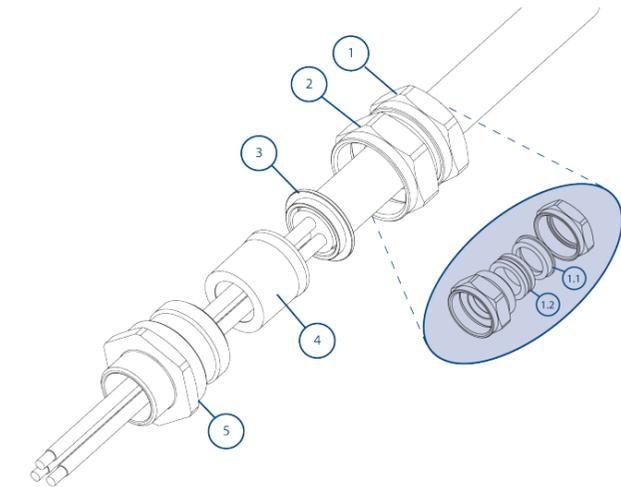
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SINUS
JEVI 

EXPLOSION-PROOF CABLE GLAND - Type ICG 623
Manual



Operating temperature range -60°C +80°C

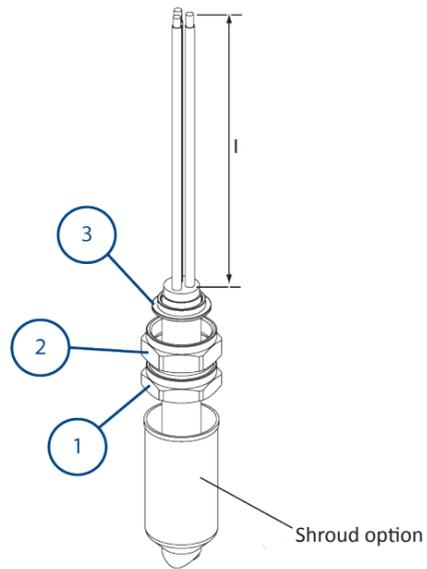


- 1. Backnut
- 1.1 Rear Compression Spigot
- 1.2 Reversible Armour Clamping Ring (RAC)
- 2. Middle Nut
- 3. Pot Cap
- 4. Rubber Pot
- 5. Entry

Certification Details
 Gland Type: ICG 623/UNIV Exd IIC Gb / Exe IIC Gb / Extb IIIC Db
 Baseefa06ATEX0058X ExII 2 GD IP66 CE
 IECEx BAS06.0015X
 CEPEL 01.0064X
 GOST R No: POCC GB.605.B03785
 c CSA us No: 1024328
 Class 1 Zone AExd IIC, AExe II,
 Zone 21 AExtD
 Class 1 Div 2 ABCD, Class II Div 2 Groups EFG, Class III
 CNEx12.3448X

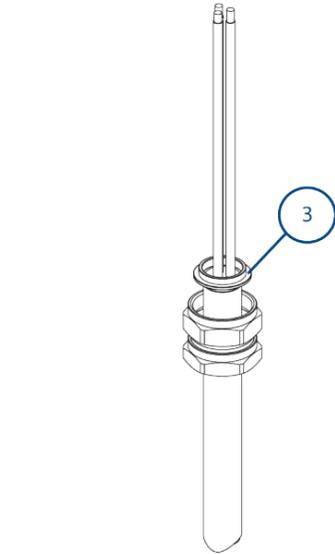
Cable preparation

Gland preparation

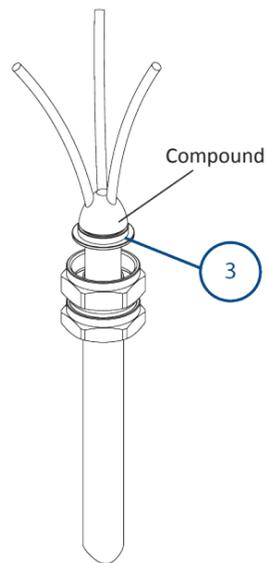


A Strip Cable to suit equipment as shown above, removing all cable fillers. Length 'l' to suit equipment. If required, fit shroud.

See Notes re. Drain Wires.

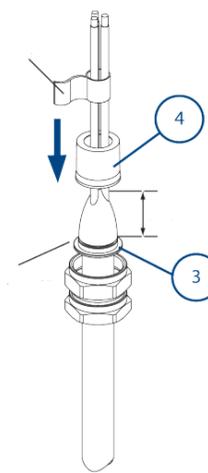


B Position rear of pot cap ③ level with prepared face of cable insulation, ensuring that the cap remains concentric to cable at all times.

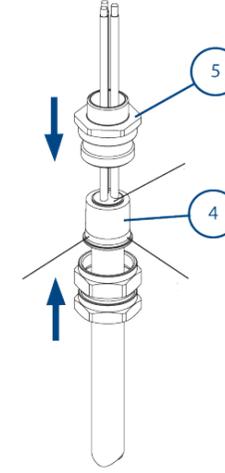


C Spread the cable cores out for the compound packing. Pack the compound between the cores as shown.

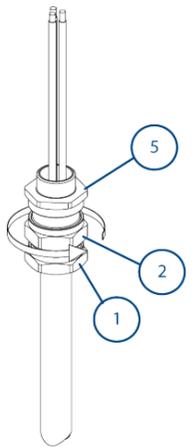
See notes overleaf and Fig. 7 for compound preparation.



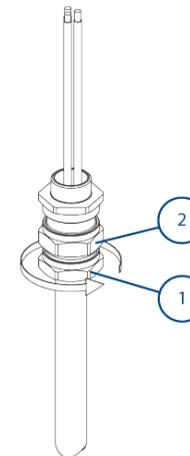
D With all gaps and voids filled, bring the conductors back together and pack more compound around the outside of the conductors. Tape the conductors together to prevent disturbance of the compound seal. Pass the rubber pot ④ over pot cap ③ and remove any surplus compound from the top of rubber pot ④ and joint faces as indicated.



E Replace the entry ⑤ over the rubber pot ④ ensuring that compound does not cover end of rubber pot ④.

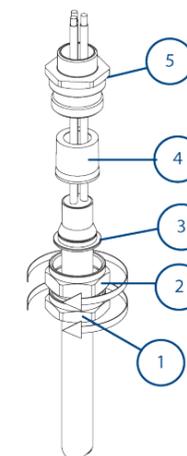


F Locate and hand tighten the sub-assembly ① and ② to the entry ⑤.

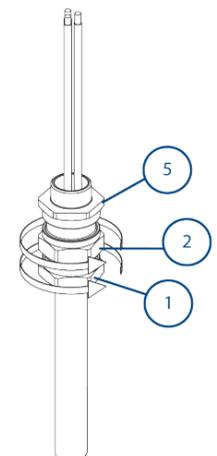


G To further locate and support the compound and rubber pot assembly, while holding the middle nut ② with a spanner/wrench, tighten the backnut ① until the seal grips the cable to prevent movement of the cable gland.

IMPORTANT NOTE: The conductors must not be moved for a minimum of four hours.



H Allow the compound to cure. (See Fig. 7 for curing times). Untighten firstly the backnut ① from ② and secondly the middle nut ② from the entry ⑤. The rubber pot ④ may be removed for inspection to ensure that the packing is satisfactory. Add further compound if necessary.



I Re-assemble rubber pot ④ and the entry ⑤. Hand tighten the sub-assembly ① and ② to the entry ⑤ and add half a turn to ② with a spanner/wrench. Hand tighten the backnut ① to form a seal around the cable, then tighten a further full turn using a spanner/wrench. Ensure that the middle nut ② does not rotate when tightening the backnut ①. Locate the shroud over the cable gland if applicable.

EPOXY COMPOUND PREPERATION

When handling this material, the gloves supplied must be worn. The epoxy compound is supplied in the form of a two part package. These should be mixed into the ratio of 1:1 until both colours have blended into one, without any streaks. Rolling and folding is the most satisfactory method of obtaining an even blend. Once mixed, the compound must be used within 30 minutes. After this time it will begin to stiffen. The compound should be kept at an ambient temperature of no less than 20°C prior to using. At lower temperatures it becomes difficult to mix. Should any compound come into contact with the skin it should be cleaned off with skin cleaner and not allowed to dry on the skin. Only compound for immediate terminations should be mixed.

The mixing and installation of the compound at an ambient temperature below 4°C is not recommended due to extended curing period.

The storage of the compound shall be at temperatures between 5°C and 30°C.

The following instructions are the various BASEEFA approved methods of passing drain wires etc. through the compound barrier and should be followed if permitted by cable installation specifications.

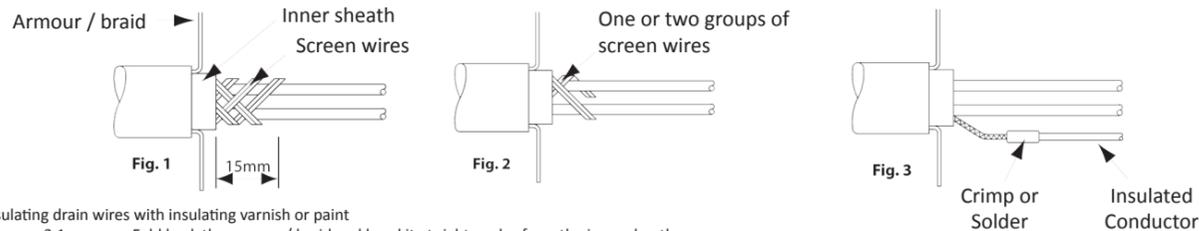
DRAIN WIRE PREPERATION

1.0 Insulating drain wires with heat shrink or cold shrink tubing

- 1.1 Fold back the armour / braid and bend it to right angles from the inner sheath.
- 1.2 Remove foils and tape level with the outer sheath, exposing the drain wires and insulated conductors. Cut back a further 10 mm of inner sheath.
- 1.3 Pass 100 mm length of heat shrink or cold shrink over the drain wire until it comes into contact with the foils, then shrink the tubing evenly down onto the drain wire so that no air pockets occur.
- 1.4 To insulate the joint between the foils and the tubing a suitable piece of 10 mm long shrink tubing or neoprene stretch tubing or a 10 mm wide lap of PVC tape may be used.
- 1.5 After completing 1.1 to 1.4 on each drain wire, lay the armour / braid parallel to the cable, if applicable, then carry out instruction B.

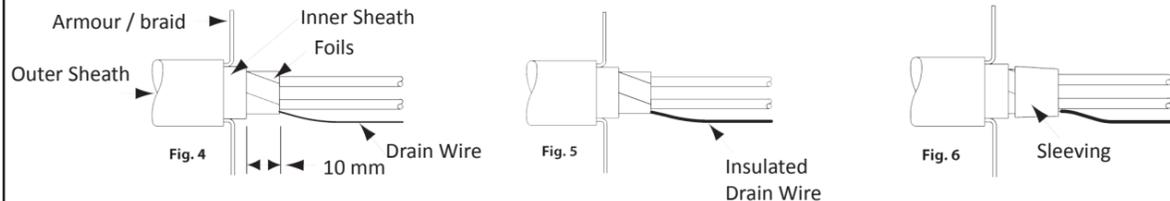
2.0 Insulating drain wires / screens with sepearate insulated crimped conductors or soldered connection

- 2.1 Fold back the armour / braid and bend to right angles from the inner sheath,
- 2.2 Remove a further 15 mm of inner sheath (See Fig. 1)
- 2.3 Unravel one or two groups of wires from the screen wires, then remove the remainder of the screen wires (See Fig. 2)
- 2.4 Twist the group of screen wires into a pigtail and cut to 15 mm long.
- 2.5 Crimp an insulated conductor to the pigtail with suitable insulated butt ferrule (or soldered connection), mleaving enough length of the insulated conductor to enable the remote end to be connected to the earth terminal in the equipment. (See Fig. 3). Note: There shall be a minimum of 10 mm of compound on both ends of the crimped / soldered joint.
- 2.6 To insulate the joint between the screen wires and the insulated conductor, place one lap of PVC insulating tape over the exposed metallic joint.
- 2.7 After completing 2.1 tom 2.6 on each drain wire, lay the armour / braid parallel to the cable. Then carry out instruction B.

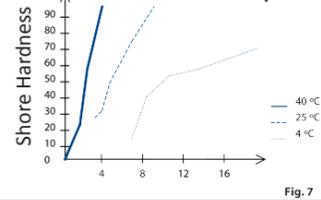


3.0 Insulating drain wires with insulating varnish or paint

- 3.1 Fold back the armour / braid and bend it at right angles from the inner sheath.
- 3.2 Remove the foil and tape level with the inner sheath exposing the drain wires and conductor pairs.
- 3.3 Cut back a further 10 mm of inner sheath (See Fig. 4).
- 3.4 Spray or paint the drain wires with insulating varnish or paint, thenleave to dry (See Fig. 5)
- 3.5 To insulate the foil ends a suitable piece of 10 mm long shrink tubing or neoprene stretch tubing or a 10 mm wide lap of PVC tape may be used (See Fig. 6)
- 3.6 After completing 3.1 to 3.5 on each drain wire, lay the armour / braid parallel to the cable. Then carry out instruction B.



Epoxy Compound Cure Time Vs. Temperature



- The compound may be adversely affected by some solvent vapours. If such vapours are likely to be present in the vicinity of the cable gland in service, suitable precautions may be necessary.

- The compound cures at a Shore D hardness of 85, when it can be handled. The compound when fully cured is suitable for use at temperature range of -60°C to +80°.

Size Ref.	Entry Thread Size		Cable Acceptance Details								Compressed Length	Maximum Length	Hexagon Dimensions	
	Metric	NPT	Inner Sheath/Cores				Outer Sheath						Across Flats	Across Corners
			Max. Over Cores	Max. Inner Sheath	NOTE 1 Max. No. of Cores	NOTE 2 Max. No. of Cores	Standard Seal		Alternative Seal (S)					
Min.	Max.	Min.	Max.											
Os	M20	½"	8.0	8.0	12	6	3.0	8.0	---	---	56.4	66	24.0	26.5
O	M20	½"	8.9	10.0	12	6	7.5	11.9	---	---	56.4	66	24.0	26.5
A	M20	½" - ¾"	11.0	12.5	15	10	11.0	14.3	8.5	13.4	55.8	63	30.0	32.5
B	M25	¾" - 1"	16.2	18.4	30	21	13.0	20.2	9.5	15.4	58.8	68	36.0	39.5
C	M32	1" - 1¼"	21.9	24.7	42	42	19.0	26.5	15.5	21.2	62.0	70	46.0	50.5
C2	M40	1¼" - 1½"	26.3	29.7	60	60	25.0	32.5	22.0	28.0	64.5	72	55.0	60.6
D	M50	1½" - 2"	37.1	41.7	80	80	31.5	44.4	27.5	34.8	72.8	87	65.0	70.8
E	M63	2" - 2½"	47.8	53.5	100	100	42.5	56.3	39.0	46.5	77.0	90	80.0	88.0
F	M75	2½" - 3"	59.0	65.3/66.2	120	120	54.5	68.2	48.5	58.3	80.7	92	95.0	104.0

Note 1: ATEX / IECEx certification only

Note 2: All other certification

ACCESSORIES

Before cable gland assembly or stripping of the cable gland assembly, consideration should be given to any cable gland accessories that may be required, such as:

- Shroud, to offer additional corrosion protection.
- Locknut, to secure cable glands into position.
- Sealing washer, to offer additional ingress protection of the enclosure at the cable gland entry.
- Serrated washer to dampen any vibrations that may loosen the locknut or cable glands assembly

SCHEDULE OF LIMITATIONS - Baseefa ATEX / IECEx

1. These glands are suitable for use within an operating temperature range of -60°C to +80°C.
 2. When the gland is used for increased safety, the entry thread shall be suitably sealed to maintain the ingress protection rating of the associated enclosure.
- NOTES - c CSA us:**
1. Class 1 Division 2 suitable for Marine Shipboard applications only according to CSA Standard 245 and IEEE45 / IEC 600092-353 Standards, or certified equivalent, for use on Shipboards and Offshore Rigs / Platforms only.
 2. Glands must comply with the Canadian Electrical Code and National Electric Code requirements for threaded entries.
 3. For Exe applications, a sealing washer or thread sealant may be required between the enclosure and the gland to maintain the IP rating of the enclosure.
 4. Drain wires and earth screening may pass through the compound barrier using one of the methods which are details in this assembly instruction; heat shrink or cold shrink tubing, or addition of an insulated crimped or soldered conductor or insulation by varnish or paint.
 5. This cable gland may only be installed when temperature is above +4°C. After completion of the installation, the assembly is then suitable for -60°C to +80°C.

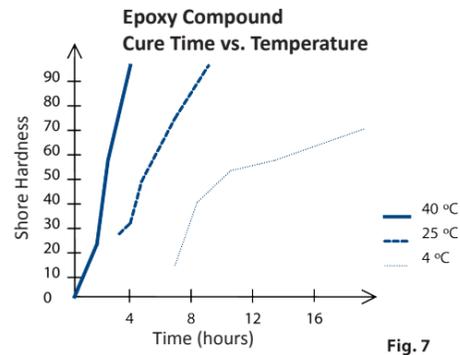


Fig. 7

- The compound may be adversely affected by some solvent vapours. If such vapours are likely to be present in the vicinity of the cable gland in service, suitable precautions may be necessary.
- The compound cures at a Shore D hardness of 85, when it can be handled. The compound when fully cured is suitable for use at a temperature range of -60° to +80°C.

Size Ref	Entry Thread Size		Cable Acceptance Details								Compressed Length	Maximum Length	Hexagon Dimensions	
			Inner Sheath/Cores				Outer Sheath		Steel Wire Armour/Tape/Braid					
	Metric	NPT	Max. Over Cores	Max. Inner Sheath	Note 1 Max. No. of Cores	Note 2 Max. No. of Cores	Min.	Max.	Orientation 1	Orientation 2			Across Flats	Across Corners
Os	M20	½"	8.9	10.0	12	6	5.5	12.0	0.8/1.25	0/0.8	67.0	83.0	24.0	26.5
O	M20	½"	8.9	10.0	12	6	9.5	16.0	0.8/1.25	0/0.8	67.0	83.0	24.0	26.5
A	M20	½" - ¾"	11.0	12.5	15	10	12.5	20.5	0.8/1.25	0/0.8	67.0	84.0	30.0	32.5
B	M25	¾" - 1"	16.2	18.4	30	21	16.9	26.0	1.25/1.6	0/0.7	73.6	91.0	36.0	39.5
C	M32	1" - 1¼"	21.9	24.7	42	42	22.0	33.0	1.6/2.0	0/0.7	78.0	98.0	46.0	50.5
C2	M40	1¼" - 1½"	26.3	29.7	60	60	28.0	41.0	1.6/2.0	0/0.7	82.4	100.0	55.0	60.6
D	M50	1½" - 2"	37.1	41.7	80	80	36.0	52.6	1.8/2.5	0/1.0	88.7	116.0	65.0	70.8
E	M63	2" - 2½"	47.8	53.5	100	100	46.0	65.3	1.8/2.5	0/1.0	92.7	124.0	80.0	88.0
F	M75	2 ½" - 3"	59.0	66.2/65.3	120	120	57.0	78.0	1.8/2.5	0/1.0	99.4	122.0	95.0	104.0

Note 1: ATEX / IECEx certification only
 Note 2: All other certification

For more information about choosing the correct cable gland, find the selection diagram on the last page.

ACCESSORIES

Before cable gland assembly or stripping of the cable gland assembly, consideration should be given to any cable gland accessories that may be required, such as:

- Shroud, to offer additional corrosion protection.
- Locknut, to secure cable glands into position.
- Sealing washer, to offer additional ingress protection of the enclosure at the cable gland entry.
- Earthtag, to provide an external armour / braid bonding point.
- Serrated washer, to dampen any vibrations that may loosen the locknut or cable gland assembly.

SCHEDULE OF LIMITATIONS - Baseefa ATEX / IECEx:

1. These glands are suitable for use within an operating temperature range of -60°C to +80°C.
 2. When the gland is used for increased safety, the entry thread shall be suitably sealed to maintain the ingress protection rating of the associated enclosure.
 3. When used with steel basket weave armour or braided cable, the cable must be clamped and cleated to prevent pulling on the armour or braid of the cable.
- NOTES - c CSA us:
1. Class 1 Division 2 suitable for Marine Shipboard applications only according to CSA Standard 245 and IEEE45 / IEC 600092-353 Standards, or certified equivalent, for use on Shipboards and Offshore Rigs / Platforms only.
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 4. Drain wires and earth screening may pass through the compound barrier using one of the methods which are details in this assembly instruction; heat shrink or cold shrink tubing, or addition of an insulated crimped or soldered conductor or insulation by varnish or paint.

5. This cable gland may only be installed when temperature is above +4°C. After completion of the installation, the assembly is then suitable for -60°C to +80°C.

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