Assembly Instructions for cable gland:
ICG 653/UNIV Exd IIC Gb / Exe IIC Gb / Extb IIIC Db

**Certification Details**
Gland Type: ICG 653/UNIV Exd IIC Gb / Exe IIC Gb / Extb IIIC Db
Baseefa06ATEX0058X-TII 2 GD IP66 CE
IEEx BA506.0015X
Ex 14.0272X
EACT RU C-GB.TS505.B.00750
c CSA us No: 1024328
Class 1 Zone 1 AExd IIC, AExe II,
Zone 21 AExD
Class 1 Div 2 ABCD, Class II Div 2 Groups EFG, Class III
CNE12.3448X

**Reversible Armour Clamping Ring (RAC)**
General identification ring orientation for:
- SWA Position
- Braid ‘X’
- Flat Steel Wire ‘Y’
- Steel Tape ‘Z’
- Ring Position

**IMPORTANT:** The arrowhead indicating the correct armour thickness or type should point towards the equipment.

**Note:** Armour cable acceptance sizes are marked on the clamping ring.

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**Cable Preparation**
A. Strip Cable to suit equipment as shown above and expose the armour/braid 'I' removing all cable fillers. 'I' = 20mm for cable gland sizes Os to A 'I' = 25mm for cable gland sizes B to C2 'I' = 32mm for cable gland sizes D to F 'II' to suit equipment.
If required, fit shroud. See Notes re. Drain Wires.

**Gland Preparation**
B. Push the cable through the armour spigot @. Spread armour/braid over the armour spigot @ until the end of the armour/braid is up against the shoulder of the armour cone. Position the armour clamping ring @.
C. Remove the rubber pot @ from the entry @. Place the entry @ over the armour spigot @. Move the sub-assembly @ and @ up to meet the entry @.
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 periods.

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

**EPOXY COMPOUND PREPARATION**

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 over the armour spigot and remove any surplus compound from the top of rubber pot and the joint face as indicated.

**IMPORTANT:** The conductors must not be moved for a minimum of four hours.
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 10mm of inner sheath.

1.3 Pass 100mm length of heat shrink or cold shrink tubing 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 10mm long shrink tubing or neoprene stretch tubing or a 10mm 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.

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.

2.0 INSULATING DRAIN WIRES / SCREENS WITH SEPARATE 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 15mm of inner sheath (See Fig. 1).

2.3 Unravel one or two groups of screen 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 15mm long.

2.5 Crimp an insulated conductor to the pigtail with a suitable insulated butt ferrule (or soldered connection), leaving 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 10mm 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 to 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 10mm of inner sheath (See Fig. 4).

3.4 Spray or paint the drain wires with insulating varnish or paint, then leave to dry (See Fig. 5)

3.5 To insulate the foil ends a suitable piece of 10mm long shrink tubing or neoprene stretch tubing or a 10mm 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.

J Allow the compound to cure. (See Fig. 7 for Curing Times). Untighten the sub-assembly 0 and 2 from the entry 6 to enable inspection. The rubber pot 5 may be removed for inspection to ensure that the packing is satisfactory.

Add further compound if necessary

K Re-assemble the rubber pot 5 and the entry 6. Tighten the sub-assembly 0 and 2 to the entry 6 until resistance is felt and add half to three quarters of a turn to 2 with a spanner / wrench. Tighten the backnut 0 to form a seal around the cable, then tighten a further full turn using a wrench / spanner. Ensure that the middle nut 2 does not rotate when tightening the backnut. Ensure that the deluge seal is pulled down into position. Locate the shroud over the cable gland, if applicable.
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.

NOTES - c CSA us:
- 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 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.

EC Declaration of Conformity in accordance with European Directive 94/9/EC (until 19th April 2016) and EU Declaration of Conformity in accordance with European Directive 2014/34/EU (from 20th April 2016)
Manufacturer: Hawke International
Address: Oxford Street West, Ashton-under-Lyne, OL7 0NA, United Kingdom.

Equipment: Group II Barrier Cable Glands Type: ICG 653/UNIV

Provisions of the Directive fulfilled by the Equipment:
Group II Category 2GD Exe IIC Gb, Exd IIC Gb, Extb IIIC Db – IP66

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