

## UK Type Examination Certificate CML 21UKEX1132X Issue 1

### United Kingdom Conformity Assessment

- 1 Product or Protective System Intended for use in Potentially Explosive Atmospheres UKSI 2016:1107 (as amended by UKSI 2019:696) – Schedule 3A, Part 1
- 2 Equipment **Ranges of Barrier and Diaphragm Seal Hybrid Cable Glands**
- 3 Manufacturer **Hawke International (A Division of Hubbell Limited) (A member of the Hubbell group of companies)**
- 4 Address Oxford Street West,  
Ashton-under-Lyne  
OL7 0NA,  
United Kingdom

5 The equipment is specified in the description of this certificate and the documents to which it refers.

6 Eurofins E&E CML Limited, Newport Business Park, New Port Road, Ellesmere Port, CH65 4LZ, United Kingdom, Approved Body Number 2503, in accordance with Regulation 43 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended by UKSI 2019:696), certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Schedule 1 of the Regulations.

The examination and test results are recorded in the confidential reports listed in Section 12.

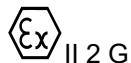
7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.

8 This UK Type Examination certificate relates only to the design and construction of the specified equipment. Further requirements of the Regulations apply to the manufacturing process and supply of the product. These are not covered by this certificate.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

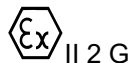
BS EN IEC 60079-0:2018      EN 60079-1:2014      EN IEC 60079-7:2015 +A1:2018  
EN 60079-31:2014

10 The equipment shall be marked with the following:

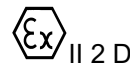


Ex db IIC Gb

Tamb = -60°C to +80°C



Ex eb IIC Gb



Ex tb IIIC Db





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## 11 Description

The ranges of cable glands are designed in two versions: barrier and diaphragm seal. Hybrid configurations of these glands are also described.

All cable glands within the ranges are manufactured in brass, nickel plated brass, stainless steel, or aluminium.

Both barrier and diaphragm seal type glands internal parts marked with an asterisk (\*) in the description below are interchangeable with respect to the type of application. When parts are interchanged, these assemblies may be dual marked with both product types on the stamp band. The “Deluge Boot” colour indicates the internal component that is used, the ICG/653/UNIV being indicated by a red deluge boot. This does not apply to the ICG 653 UNIV J-Size.

Cable glands may be fitted with an optional external clamp or a Hawke Gland Mounted Clamp (GMC) accessory. When fitted, no additional clamping is required on the barrier or diaphragm sealed glands.

Items in *italic* are optional and may be omitted from the cable gland dependent on the application.

Hybrid cable glands are available for the gland types ICG/653/UNIV and 501/453/UNIV. These types are fitted with the middle nut and back nut components of any smaller trade size compared to the entry. Glands may combine entries and seals with small armour clamping rings and back nut seals. Hybrid gland marking to include second size reference with no spaces e.g. for example C2 to C hybrid size reference would be C2C.

The use of Hawke IP sealing washers may be considered a suitable sealing method to maintain IP rating to the enclosure (see conditions of use) and will maintain the service temperature.

Where marked IIC or IIIC, the equipment can also be marked for gas groups IIA or IIB and for dust groups IIIA or IIIB.

### Type 501/453/UNIV Cable Gland

501/453/UNIV cable gland is a diaphragm seal cable gland the glands are fitted with a diaphragm silicone rubber seal and are designed for effectively filled type cable when used for flameproof applications. This gland type is rated for ingress protection IP66, 67, 69 and IPX8 size Os to C only at 10m for 24 hours. This cable gland is available in sizes Os (M16) up to and including F(M75). The entry thread form can either be metric or NPT equivalent. They are used with cables that are circular and armoured, un-armoured or braided cables. The cable gland comprises the following components:

- a) Entry
- b) Deluge boot \*
- c) Diaphragm seal \*
- d) Spigot \*
- e) Armour clamping ring
- f) Middle nut
- g) Back nut
- h) Back nut clamp
- i) Back nut seal



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### **Type ICG/653/UNIV Cable Gland**

The ICG/653/UNIV Cable Gland is a barrier seal type gland designed for sealing around individual cores and are for use with circular cables of armoured, un-armoured or corrugated cables. This cable gland is available in sizes Os (M16) up to and including J (M100). The entry thread form is either metric or NPT equivalent. This gland type is rated for ingress protection IP66, 67, 69 and IPX8 size Os to C only at 10m for 24 hours. Trade size J is IP66 only.

The cable gland comprises the following components:

- a) Entry
- b) Deluge boot\*
- c) Compound chamber\*
- d) *Resin dam* \*
- e) Spigot\*
- f) *VBL Clip* \*
- g) Armour/braid clamping ring
- h) Middle nut
- i) Back nut
- j) Back nut clamp
- k) Back nut seal

### **Type 710 Cable Gland**

The 710 Cable gland is a barrier cable gland designed for sealing around individual cores and are for use with circular cables of armoured, un-armoured or corrugated cables. This gland type is rated for ingress protection IP66, 67, 69 and IPX8 size Os to C only at 10m for 24 hours. This cable gland is available in sizes Os (M16) up to and including F (M75). The entry thread form is either metric or NPT equivalent. The cable gland comprises the following components:

- a) Entry
- b) Deluge boot
- c) Compound chamber
- d) *Resin dam*
- e) Spigot
- f) Middle nut
- g) Back nut
- h) Back nut clamp
- i) Back nut seal



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### **Type 711 Cable Gland**

711 Cable gland is a barrier cable gland designed for sealing around individual cores and are for use with circular cables of armoured, un-armoured or corrugated cables. This gland type is rated for ingress protection IP66, 67, 69 and IPX8 size Os to C only at 10m for 24 hours. This cable gland is available in sizes A (M20) up to and including F (M75). The entry thread form is either metric or NPT equivalent. The cable gland comprises the following components:

- a) Entry
- b) Deluge boot
- c) Compound chamber
- d) Resin dam
- e) Front diablo support
- f) Diablo cage
- g) Rear diablo support
- h) Middle nut
- i) Back nut
- j) Back nut clamp
- k) Back nut seal

### **Type 753 Cable Gland**

753 cable gland Cable gland is a barrier cable gland designed for sealing around individual cores and are for use with circular cables of armoured, un-armoured or braided cables. This gland type is rated for ingress protection IP66, 67, 69 and IPX8 size Os to C only at 10m for 24 hours. This cable gland is available in sizes Os (M16) up to and including F(M75). The entry thread form is either metric or NPT equivalent. The cable gland comprises the following components:

- a) Entry
- b) Deluge boot
- c) Compound chamber
- d) Resin dam
- e) Spigot
- f) Middle nut
- g) Back nut
- h) Back nut clamp
- i) Back nut seal

Cable gland types ICG/653/UNIV, 710, 711 and 753, in trade sizes Os to F, have been subjected to overpressure test up to 62bar/900 Psi.



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## Variation 1

This variation introduces the following change:

1. To introduce and update the certification product description to include type ICG 653 oversize cable gland J-Size.
2. To review and assess the ICG 653 Oversize cable glands J-Size against the latest technical knowledge IEC 60079-0:2017 Ed.7.
3. To review the ICG 653 Oversize cable gland J-Size against the latest Increase Safety requirements "Ex eb".
4. To amend the specific condition of safe use.
5. To remove the condition of manufacture.
6. Introduction of new set of certification drawings.

## 12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	29 Sept 2021	R13593H/00	The issue of prime certificate.
1	26 Mar 2024	R16139A/00	The introduction of variation 1.

Note: Drawings that describe the equipment are listed in the Annex.

## 13 Conditions of Manufacture

None

## 14 Specific Conditions of Use

The following conditions relate to safe installation and/or use of the equipment.

- i. 501/453/UNIV when used with unarmoured or braided cables are only suitable for fixed installations, the cable for which shall be effectively clamped to prevent pulling and twisting (does not apply when fitted with rear clamping device or Hawke Gland Mounted Clamp (GMC)).
- ii. Barrier glands of sizes C2, D, E and F and containing (Express) XO99-41-2 resin when used with unarmoured or braided cables are only suitable for fixed installations, the cable for which must be effectively clamped to prevent pulling and twisting. No clamping is required on barrier cable glands sizes Os-C2, or if containing 2122 Hawkesal or 2132 QSP compound.
- iii. The entry thread shall be suitably sealed (in accordance with IEC 60079-14) to maintain the ingress protection rating of the associated enclosure. This condition does not apply if the Hawke International nylon sealing washer is installed as part of the gland assembly.

# Certificate Annex

**Certificate Number** CML 21UKEX1132X  
**Equipment** Ranges of Barrier and Diaphragm Seal Hybrid Cable Glands  
**Manufacturer** Hawke International (A Division of Hubbell Limited) (A member of the Hubbell group of companies)



The following documents describe the equipment defined in this certificate:

## Issue 0

	Drawing No.	Sheets	Rev	Approved /issued date	Title
1	320004*	1 of 1	A	27-09-2021	501/453/Univ
2	320029*	1 of 1	A	27-09-2021	ICG/653/Univ schedule drawing
3	320034*	1 of 1	A	27-09-2021	753 schedule drawing
4	320042*	1 of 1	A	27-09-2021	710 schedule drawing
5	320043*	1 of 1	A	27-09-2021	711 schedule drawing
*These drawings are common to CML 19ATEX4507X, CML 21UKEX4133X and IECEx CML 21.0012X.					

The following component drawings are common to each of the cable gland as indicated.

	Drawing No.	Sheets	Rev	Approved /issued date	Title	501/453/Univ	ICG/653/Univ	753	710	711
a	320008	1 of 1	A	27-09-2021	OMNI Entry	x	x	x	x	x
b	320001	1 of 1	A	27-09-2021	Diaphragm Seal	x				
c	320007	1 of 1	A	27-09-2021	Deluge boot	x	x	x	x	x
d	320002	1 of 1	A	27-09-2021	Armour clamping ring	x	x	x		
e	320009	1 of 1	A	27-09-2021	Middle nut	x	x	x	x	x
f	320003	1 of 1	A	27-09-2021	Back nut seal	x	x	x	x	x
g	320010	1 of 1	A	27-09-2021	Back nut	x	x	x	x	x
h	320011	1 of 1	A	27-09-2021	Thread forms	x	x	x	x	x
i	320012	1 of 1	A	27-09-2021	External clamp	x	x	x	x	x
j	320082	1 of 1	A	27-09-2021	GMC	x	x	x	x	x
k	320031	1 of 1	A	27-09-2021	ALT Compound Chamber Entry		x	x	x	x
l	320030	1 of 1	A	27-09-2021	Std Compound Chamber		x	x	x	x
m	320032	1 of 1	A	27-09-2021	ALT Compound Chamber		x			

# Certificate Annex

**Certificate Number** CML 21UKEX1132X

**Equipment** Ranges of Barrier and Diaphragm Seal Hybrid Cable Glands

**Manufacturer** Hawke International (A Division of Hubbell Limited) (A member of the Hubbell group of companies)



	Drawing No.	Sheets	Rev	Approved /issued date	Title	501/453/Univ	ICG/653/Univ	753	710	711
n	320083	1 of 1	A	27-09-2021	ALT Compound Chamber			x	x	x
o	320044	1 of 1	A	27-09-2021	Spacer spigot				x	
p	320045	1 of 1	A	27-09-2021	Diablo					x

## Issue 1

Drawing No	Sheets	Rev	Approved date	Title
320115	1 of 1	A	26 Mar 2024	CSB 656 N Oversize Entry Schedule Drawing
320116	1 of 1	A	26 Mar 2024	CSB 656 N Oversize Spigot Schedule Drawing
320117	1 of 1	A	26 Mar 2024	CSB 656 N Oversize Body Nut Schedule Drawing
320114	1 of 1	A	26 Mar 2024	CSB 656 N Oversize Schedule Drawing