



# IECEx Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.: **IECEx CML 21.0012X** Page 1 of 4 [Certificate history:](#)  
Issue 0 (2021-09-29)

Status: **Current** Issue No: 1

Date of Issue: 2022-03-31

Applicant: **Hawke International**  
A Division of Hubbell Limited  
A Member of the Hubbell Group of Companies  
Oxford Street West  
Ashton-under-Lyne, Lancashire  
OL7 0NA  
**United Kingdom**

Equipment: **Ranges of Compression Seal, Diaphragm Seal, Hybrid and Barrier Cable Glands**

Optional accessory:

Type of Protection: **Restricted Breathing Ex nR**

Marking: **Ex nR IIC Gc**  
See conditions of use for service temperature range

Approved for issue on behalf of the IECEx  
Certification Body:

**S. Roubedakis**

Position:

**Technical Manager**

Signature:  
(for printed version)

Date:  
(for printed version)

2022-03-21

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Certificate issued by:

**Eurofins E&E CML Limited**  
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Manufacturer: **Hawke International**  
A Division of Hubbell Limited  
A Member of the Hubbell Group of Companies  
Oxford Street West  
Ashton-under-Lyne, Lancashire  
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**United Kingdom**

Manufacturing locations: **Hawke International**  
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**United Kingdom**

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

#### STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

[IEC 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements  
Edition:7.0

[IEC 60079-15:2017](#) Explosive atmospheres - Part 15: Equipment protection by type of protection "n"  
Edition:5.0

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

#### TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

[GB/CML/ExTR21.0018/00](#)

[GB/CML/ExTR21.0316/00](#)

Quality Assessment Report:

[GB/BAS/QAR06.0061/09](#)



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**EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

Refer to Certificate Annex for full product descriptions.

**SPECIFIC CONDITIONS OF USE: YES** as shown below:

See Certificate Annex for list of specific conditions of safe use.



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Date of issue: 2022-03-31

Issue No: 1

## **DETAILS OF CERTIFICATE CHANGES (for issues 1 and above) Issue 1**

This Issue introduced the following changes (and is applicable to Type PSG 553 RAC Cable Gland and Type SB474 Conduit Stopping Gland).

1. To introduce a new seal design for PSG/553/RAC, sizes Os to C and SB 474, sizes O to C; as a result the product description was amended.
2. To introduce a new compressible seal which has an increased service temperature of -60°C to +100°C; to reflect this modification the product description and Specific Conditions of Use were updated.
3. To permit minor editorial updates to the Product Description.
4. To permit changes to the Specific Conditions of Use.
5. To remove cable gland types 501/452 RAC and PSG 421; as a result, the product description was amended.

### **Annex:**

[IECEX CML 21.0012X Issue 1 - Certificate Annex\\_1.pdf](#)

**Annexe to:** IECEx CML 21.0012X Issue 1

**Applicant:** Hawke International (A Division of Hubbell Limited) (A member of the Hubbell group of Companies)

**Apparatus:** Ranges of Compression Seal, Diaphragm Seal, Hybrid and Barrier Cable Glands

## Description

The ranges of cable glands are designed in three versions: compression seal, barrier seal and diaphragm seal. Hybrid configurations of these glands are also described. The range of glands can alternatively be constructed with specified entry threads.

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,

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.

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, 501/453/RAC 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.

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### **Type 501/453/UNIV Cable Gland**

501/453/UNIV cable gland is fitted with a diaphragm silicone rubber seal and designed for effectively filled type cable when used for flameproof applications. The cable gland is suitable for use within an operating temperature range of -60°C to +80°C. They are for use with cables that are circular and armoured, un-armoured or braided. The gland type is rated for ingress protection IP66, 67, 69 and IPX8 size Os to C only at 10m for 24 hours. The cable gland comprises the following components: -

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

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

The ICG/653/UNIV Cable Gland is a barrier seal type gland designed for sealing around individual cores. They are for use with cables that are circular and armoured, un-armoured or braided. The cable gland is suitable for use within an operating temperature range of -60°C to +80°C. The gland type is rated for ingress protection IP66, 67, 69 and IPX8 size Os to C only at 10m for 24 hours. The cable gland comprises the following components: -

- a) *IP Washer*
- b) Entry
- c) Deluge seal\*
- d) Silicone compound chamber\*
- e) *Silicone resin dam \**
- f) Spigot\*
- g) *Wire VBL Clip \**
- h) Armour clamping ring
- i) Middle nut
- j) Back nut
- k) Back nut clamp
- l) 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, braided, or corrugated armour cables. The cable gland is suitable for use within an operating temperature range of -60°C to +80°C. The gland type is rated for ingress protection IP66, 67, 69 and IPX8 size Os to C only at 10m for 24 hours. The cable gland comprises the following components:

- a) *IP washer*
- b) Entry
- c) Silicone compound chamber
- d) Deluge seal
- e) *Silicone resin dam*
- f) Spigot
- g) Middle nut
- h) Back nut
- i) Back nut clamp
- j) Back nut seal

### **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 with corrugated armour. The cable gland is suitable for use within an operating temperature range of -60°C to +80°C. The gland type is rated for ingress protection IP66, 67, 69 and IPX8 size A to C only at 10m for 24 hours. The cable gland comprises the following components:

- a) *IP washer*
- b) Entry
- c) Silicone compound chamber
- d) Deluge seal
- e) *Silicone resin dam*
- f) Front diablo support
- g) Diablo cage
- h) Rear diablo support
- i) Middle nut
- j) Back nut
- k) Back nut clamp
- l) Back nut seal

### **Type 753 Cable Gland**

753 Cable Gland is a barrier cable gland designed for sealing around individual cores and for use with circular cables of armoured, un-armoured or braided cables. The cable gland is suitable for use within an operating temperature range of -60°C to +80°C. The gland type is rated for ingress protection IP66, 67, 69 and IPX8 size Os to C only at 10m for 24 hours. The cable gland comprises the following components:

- a) IP washer
- b) Entry
- c) Silicone compound chamber
- d) Deluge seal
- e) Silicone resin dam
- f) Spigot
- g) Middle nut
- h) Back nut
- i) Back nut clamp
- j) Back nut seal

### **Type 501/421 Cable Gland**

The Type 501/421 Cable Gland is intended for use with an effectively filled and circular unarmoured cable. The gland type is rated for ingress protection IP66 and 67. It comprises the following components:-

- a) An entry component in the size range Os to J
- b) A compressible sealing ring
- c) A compression spigot
- d) A back nut
- e) An optional earth continuity device for use with metallic sheathed cables

### **The Type 501/421 'Size 2K' gland**

The Type 501/421 'Size 2K' gland comprises the following components only: -

- a) A dedicated entry component
- b) A compressible sealing ring
- c) A nylon skid washer
- d) A threaded compression spigot



### **Type 501/423 Cable Gland**

The Type 501/423 Cable Gland is intended for use with an effectively filled and circular unarmoured cable. The gland type is rated for ingress protection IP66 and 67. It comprises the following components:-

- a) An entry component, in the size range Os to J
- b) Two compressible sealing rings
- c) Two compression spigots
- d) A middle nut
- e) A back nut
- f) An optional earth continuity device for use with metallic sheathed cables

### **Type 501/453 RAC Cable Gland**

The Type 501/453 RAC Cable Gland is intended for use with armoured, unarmoured, or braided cable. The gland type is rated for ingress protection IP66 and 67. It comprises the following components: -

- a) An entry component, in the size range Os to J
- b) A compressible sealing ring
- c) A combined compression spigot and armour clamping cone
- d) A reversible armour clamping ring. (When fitted with a dedicated armour, or braid, clamping ring the gland type is 501/453).
- e) A middle nut
- f) An outer seal assembly (sleeve seal and support ring)
- g) A back nut
- h) An optional earth continuity device for use with metallic inner sheathed cables.

### **Type PSG 553 RAC Cable Gland**

The Type PSG 553 RAC Cable Gland is intended for use with armoured, unarmoured, or braided cable of unspecified construction. The gland type is rated for ingress protection IP66 and 67. It comprises the following components: -

- a) An entry component, in the size range Os to C
- b) A compressible seal designed to accept a number of individual conductors
- c) A combined compression spigot and armour clamping cone.
- d) A reversible armour clamping ring. (When fitted with a dedicated armour, or braid, clamping ring the gland type is PSG 553).
- e) A middle nut
- f) An outer seal assembly (sleeve seal and support ring)
- g) A back nut

### **Type 501/414 Conduit Stopping Gland**

The Type 501/414 Conduit Stopping Gland is intended for use with an effectively filled and circular unarmoured cable enclosed within a conduit. The gland type is rated for ingress protection IP66 and 67. It comprises the following components: -

- a) An entry component. in the size range Os to F
- b) A compressible sealing ring
- c) A compression assembly comprising a compression spigot with a female thread at the rear and integral back nut

### **Type SB474 Conduit Stopping Gland**

The Type SB474 Conduit Stopping Gland is intended for use with a number of circular conductors enclosed within a conduit. The gland type is rated for ingress protection IP66 and 67. It comprises the following components: -

- a) An entry component in the size range A to C
- b) A compressible seal designed to accept a number of individual conductors
- c) A compression assembly comprising a compression spigot with a female thread at the rear and integral back nut

### **Type CSB 656N Conduit Stopping Gland**

The Type CSB 656N Conduit Stopping Gland is intended for use with a number of circular conductors enclosed within a conduit or retained by a separate cable gland. The gland type is rated for ingress protection IP66. It comprises the following components: -

- a) An entry component in the size range A to F
- b) An elastomeric ferrule
- c) An epoxy barrier compound
- d) A compression assembly comprising a compression spigot with a female thread at the rear
- e) A dedicated backnut

### **Design option**

1. Cable glands types ICG/653/UNIV, 710, 711 and 753 have been subjected to overpressure test up to 62bar/900 Psi.
2. Where marked IIC or IIIC, the equipment can also be marked for gas groups IIA or IIB and for dust groups IIIA or IIIB.

### **Conditions of Manufacture**

None

## Specific Conditions of Use

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

- i. All cable gland types with the exception of those listed in item (ii), when fitted with unarmoured/braided cables, shall be provided with an additional clamping device to prevent pulling or twisting forces transmitting to the terminations. This requirement may be met by incorporating the rear clamping device or fitting the Hawke Gland Mounted Clamp (GMC).
- ii. Barrier gland sizes C2, D, E and F that contain (Express) XO99-41/2 resin, and when fitted with unarmoured/braided cables, shall be provided with an additional clamping device to prevent pulling or twisting forces transmitting to the terminations. No clamping device required on cable glands sizes Os-C2, or if containing 2122 putty and D to F with 2132 putty.
- iii. The ICG 653 UNIV, 501/453 UNIV cable glands when fitted with cold shrink on the cable outer sheath of specific cable types, the assembly instruction shall be implemented with Hawke drawing No. 320000 for those particular cable types.
- iv. The PSG/553/RAC and SB 474 cable glands are limited to an operating temperature range of  $-60^{\circ}\text{C}$  to  $+80^{\circ}\text{C}$ , unless marked "P PSG/553/RAC" and "P SB 474" respectively. In these cases, they are suitable for use with an operating temperature range of  $-60^{\circ}\text{C}$  to  $+100^{\circ}\text{C}$ . All other cable gland types are suitable for use with an operating temperature range of  $-60^{\circ}\text{C}$  to  $+100^{\circ}\text{C}$ .
- v. When the glands are used for restricted breathing Ex nR, 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

## Components covered by Ex Certificates issued to older editions of Standards

None