



EU Type Examination Certificate CML 18ATEX1268X Issue 3

- 1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 2 Equipment **Ranges of Barrier and Diaphragm Seal Hybrid Cable Glands – Types ICG 653/UNIV; 710; 711; 753 and 501/453/UNIV**
- 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 CML B.V., Chamber of Commerce No 6738671, Koopvaardijweg 32, 4906CV Oosterhout The Netherlands, Notified Body Number 2776, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, 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 Annex II to the Directive.
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 EU Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Article 13 apply to the manufacture of the equipment or component and are separately certified.
- 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:

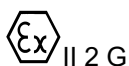
EN IEC 60079-0:2018

EN 60079-1:2014

EN IEC 60079-7:2015
+A1:2018

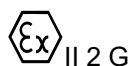
EN 60079-31:2014

- 10 The equipment shall be marked with the following:

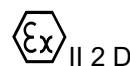


Ex db IIC Gb

-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. A further version which is a hybrid of the barrier and diaphragm seal glands is included. The glands can be supplied with specified alternative entry threads.

All cable glands within the ranges are manufactured in 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, The gland assemblies as described above are rated for ingress protection IP66, 67, 69 and IPX8 size Os to C only at 10m for 24 hours.

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.

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. The cable gland comprises the following components: -

- a) *IP Washer*
- b) Entry
- c) Deluge seal *
- d) Silicone compound chamber *
- e) *Silicone resin barrier* *
- f) Spigot *
- g) *Wire VBL Clip* *
- h) Armour clamping ring
- i) Middle nut
- j) Back nut
- k) Back nut clamp
- l) Back nut seal

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. The cable gland comprises the following components:

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



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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. The cable gland comprises the following components:

- a) *IP washer*
- b) Entry
- c) Silicone compound chamber
- d) Deluge seal
- e) *Silicone resin barrier*
- 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

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. The cable gland comprises the following components:

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

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. They are used with cables that are circular and armoured, un-armoured or braided cables.

- 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

Hybrid Glands

Hybrid cable glands are available for the gland types ICG 653/UNIV and 501/453 UNIV. These are fitted with the middle nut and back nut components of any smaller sized banknut. Glands may



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combine entries, compound chambers and/or diaphragm seals with smaller 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.

Variation 1

This variation introduced the following changes:

- i. To update the certification drawing with minor dimensional corrections.
- ii. To include the type of protection “Ex nR” Restricted Breathing.
- iii. To include an additional specific condition of use for braided cables.

Variation 2

This variation introduce the following change:

- i. Introduction of undersize compound pot for gland size Os, O, D, E and F.
- ii. Introduction of thread size M16 for size Os and O, except from gland type 711.
- iii. Adding NPT thread size: 1½”, 2”, 2½” for gland size D, E and F respectively.

Variation 3

- i. To revise the specific conditions of use.
- ii. Update GA drawings.
- iii. Add accessory optional item GMC 'Gland Mounted Clamp'
- iv. Clarify the Ingress Protections IP ratings.
- v. To review and update the cable glands against the latest standard.
- vi. Hybrid Gland Combinations to permit flexibility.
- vii. Update the marking.
- viii. To revise the equipment title.
- ix. To revise the product description.

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	10 May 2019	R11909A/00	Issue of Prime Certificate
1	11 Feb 2020	R12916A/00	Introduction of Variation 1
2	16 Mar 2020	R13124A/00	Introduction of Variation 2
3	29 Sep 2021	R13593A/00	The introduction of variation 3

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

13 Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

- i. Cable glands listed by this certificate have been subjected to overpressure test up to 62 bar/900 Psi.



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14 Specific Conditions of Use (Special Conditions)

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

- i. 501/453/UNIV, when fitted with unarmoured/braided cables, shall be provided with an additional clamping device to prevent pulling or twisting forces transmitting to the terminations.
- ii. Barrier glands of sizes C2, D, E and F and containing (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.

Certificate Annex

Certificate Number CML 18ATEX1268X
Equipment Ranges of Barrier and Diaphragm Seal Hybrid Cable Glands – Types ICG 653/UNIV; 710; 711; 753 and 501/453/UNIV
Manufacturer Hawke International (A Division of Hubbell Limited) (A member of the Hubbell group of companies)



The following documents describe the equipment or component defined in this certificate:

Issue 0

Drawing No	Sheets	Rev	Approved date	Title
Omni Gland X	1 to 2	A	10 May 2019	GA of type ICG/653/UNIV 501/453/UNIV
ICG-653-UNIV-X	1 to 2	A	10 May 2019	GA of type ICG/653/UNIV
501 453 UNIV X	1 to 2	A	10 May 2019	GA of type 501/453/UNIV
710-X	1 of 1	A	10 May 2019	GA for 710-X Gland
711-X	1 of 1	A	10 May 2019	GA for 711-X Cable Gland
753-X	1 of 1	A	10 May 2019	GA of type 753-X
3015	1 of 1	G	10 May 2019	Material Spec's
3014	1 of 1	AD	10 May 2019	Cable Glands Matrix

Issue 1

Drawing No	Sheets	Rev	Approved date	Title
Omni Gland X	1 to 2	B	11 Feb 2020	GA of type ICG/653/UNIV 501/453/UNIV
ICG-653-UNIV-X	1 to 2	C	11 Feb 2020	GA of type ICG/653/UNIV
501 453 UNIV X	1 to 2	B	11 Feb 2020	GA of type 501/453/UNIV
710-X	1 of 1	B	11 Feb 2020	GA for 710-X Gland
711-X	1 of 1	B	11 Feb 2020	GA for 711-X Cable Gland
753-X	1 of 1	B	11 Feb 2020	GA of type 753-X

Issue 2

Drawing No	Sheets	Rev	Approved date	Title
Omni Gland X	1 to 2	C	16 Mar 2020	GA of type ICG/653/UNIV 501/453/UNIV
ICG-653-UNIV-X	1 to 2	D	16 Mar 2020	GA of type ICG/653/UNIV
710-X	1 of 1	C	16 Mar 2020	GA for 710-X Gland
711-X	1 of 1	C	16 Mar 2020	GA for 711-X Cable Gland
753-X	1 of 1	C	16 Mar 2020	GA of type 753-X

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Issue 3

	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 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			

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	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