Certificate No:
TAE00000010

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Cable Gland

with type designation(s)
A2EX, A2EX-FHC, A2EX-QS, A2F, A2FX, BARRIERTEX A, BARRIERTEX F, E1EX, E1EX~QS, E1EX-U, E1EX-U~QS, EX CG, EX CG~QS, EX CG – lead seal, POSI GRIP, STOPEX F, STOPEX, VARITEX

Issued to
CCG Cable Terminations (Pty) Ltd.
KEMPTON PARK, South Africa

is found to comply with
DNV GL rules for classification – Ships and offshore units

Application :

Cable glands for electric installation in hazardous area.
Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

This Certificate is valid until **2020-10-14**.
Issued at **Høvik** on **2015-10-15**
DNV GL local station: **Newcastle-upon-Tyne** for **DNV GL**

Approval Engineer: **Ludovico Gullifa**

Marit Laumann
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

Product description

Cable glands for electric installation in hazardous area

Type	**A2EX**
Application	The A2EX cable gland is used in explosive atmospheres to terminate unarmoured cables into enclosures. It has an inner seal that seals against the cable and a second seal that provides superior cable retention. The A2EX cable gland is supplied with a sealing washer as standard.
Design Specification	IEC 62444
Certification	IECEx, ATEX
Operating temperature	-20° C to +95° C
Ingress protection	IP66, IP67, IP68
Gland material	Brass, nickel plated brass or stainless steel, aluminium (Ex e only)
Seal material	Thermoset elastomer
Gland sizes	16ss, 20ss, 20s, 20, 25s, 25, 32s, 32, 40s, 40, 50s, 50, 63s, 63, 75s, 75, 80, 90s, 90, 100, 110.
Data sheet	GH210714
Assembly drawing No.	0536-ASSY
Optional accessories	Earth tag, locknut, serrated washer, shroud.

Type	**A2EX-FHC**
Application	The A2EX cable gland is used in explosive atmospheres to terminate unarmoured cables housed in conduit into enclosures. It has an inner seal that seals against the cable and a second seal that provides superior cable retention. The A2EX-FHC cable gland is supplied with a sealing washer as standard.
Design Specification	IEC 62444
Certification	IECEx, ATEX
Operating temperature	-30° C to +180° C
Ingress protection	IP66, IP67, IP68
Gland material	Nickel plated brass.
Seal material	Thermoset elastomer
Gland sizes	16ss, 20ss, 20s, 20, 25, 32, 40, 50, 63, 75.
Data sheet	GH240214E
Assembly drawing No.	0537-ASSY
Optional accessories	Earth tag, locknut, serrated washer, shroud.

Type	**A2EX-QS**
Application	The A2EX-QS barrier compression cable gland is used in explosive atmospheres to terminate unarmoured cables into enclosures. It has an inner seal that seals against the barrier tube a second seal that provides superior cable retention. The A2EX~QS cable gland is supplied with a sealing washer as standard.
Design Specification	IEC 62444
Certification	IECEx, ATEX
Operating temperature	-20° C to +95° C
Ingress protection	IP66, IP67, IP68
Gland material	Brass, nickel plated brass or stainless steel
Seal material	Thermoset elastomer
Gland sizes	16ss, 20ss, 20s, 20, 25s, 25, 32s, 32, 40s, 40, 50s, 50, 63s, 63, 75s, 75, 80, 90s, 90, 100, 110.

Data sheet	GH220914
Assembly drawing No.	0536-ASSY
Optional accessories	Earth tag, locknut, serrated washer, shroud.

Type	**A2F**
Application	The A2F cable gland is used in explosive atmospheres to terminate unarmoured cables into enclosures. The A2F cable gland is supplied with a sealing washer as standard.
Design Specification	IEC 62444
Certification	IECEx, ATEX
Operating temperature	-20° C to +95° C
Ingress protection	IP66, IP67, IP68
Gland material	Brass, nickel plated brass or stainless steel
Seal material	Thermoset elastomer
Gland sizes	16ss, 20ss, 20s, 20, 25s, 25, 32s, 32, 40s, 40, 50s, 50, 63s, 63, 75s, 75, 80, 90s, 90, 100, 110.
Data sheet	GH130914E
Assembly drawing No.	0540-A
Optional accessories	Earth tag, locknut, serrated washer, shroud.

Type	**A2FX**
Application	The A2FX is a double-seal cable gland used in explosive atmospheres to terminate unarmoured cables into enclosures. The A2FX cable gland is supplied with a sealing washer as standard.
Design Specification	IEC 62444
Certification	IECEx, ATEX
Operating temperature	-20° C to +95° C
Ingress protection	IP66, IP67, IP68
Gland material	Brass, nickel plated brass or stainless steel
Seal material	Thermoset elastomer
Gland sizes	16ss, 20ss, 20s, 20, 25s, 25, 32s, 32, 40s, 40, 50s, 50, 63s, 63, 75s, 75, 80, 90s, 90, 100, 110.
Data sheet	GH160513E
Assembly drawing No.	0542-NPT- ASSY
Optional accessories	Earth tag, locknut, serrated washer, shroud.

Type	**BARRIERTEX A**
Application	The BARRIERTEX A barrier cable gland is used to terminate armoured cables into enclosures. It has an IP seal that acts against the outer sheath of the cable. The barrier compound is an epoxy putty material. The BARRIERTEX A cable gland is supplied with a sealing washer as standard.
Design Specification	IEC 62444
Certification	IECEx, ATEX
Operating temperature	-20° C to +95° C
Ingress protection	IP66, IP67, IP68
Gland material	Nickel plated brass or stainless steel
Seal material	Thermoset elastomer
Gland sizes	20ssB, 20ss, 20sB, 20s, 20, 25s, 25, 32s, 32, 40s, 40, 50s, 50, 63s, 63.
Data sheet	GH320214
Assembly drawing No.	BRTX-A
Optional accessories	Earth tag, locknut, serrated washer, shroud.

Type	**BARRIERTEX F**
Application	The BARRIERTEX F barrier cable gland is used to terminate unarmoured cables into enclosures. It has an epoxy putty barrier material that seals against the cable inner cores and an IP seal that acts against the outer sheath of the cable. The BARRIERTEX F cable gland is supplied with a sealing washer as standard.
Design Specification	IEC 62444
Certification	IECEx, ATEX
Operating temperature	-20° C to +95° C
Ingress protection	IP66, IP67, IP68
Gland material	Nickel plated brass or stainless steel
Seal material	Barrier compound and thermoset elastomer
Gland sizes	20ss, 20s, 20, 25s, 25, 32s, 32, 40s, 40, 50s, 50, 63s, 63
Data sheet	GH330214
Assembly drawing No.	BRTX-F
Optional accessories	Earth tag, locknut, serrated washer, shroud.

Type	**E1EX**
Application	The E1EX cable gland is used to terminate armoured cables into enclosures. It has seals that acts against the inner and outer sheaths of the cable. The E1EX cable gland is supplied with a sealing washer as standard.
Design Specification	IEC 62444
Certification	IECEx, ATEX
Operating temperature	-20° C to +95° C
Ingress protection	IP66, IP67, IP68
Gland material	Nickel plated brass or stainless steel
Seal material	Thermoset elastomer
Gland sizes	16ss, 20ss, 20s, 20, 25s, 25, 32s, 32, 40s, 40, 50s, 50, 63s, 63, 75s, 75, 80, 90s, 90, 100, 110, 115, 120, 130.
Data sheet	GH030914E
Assembly drawing No.	0523 – ASSY – GENERAL DIM
Optional accessories	Earth tag, locknut, serrated washer, shroud.

Type	**E1EX~QS**
Application	The E1EX~QS is a cable gland used to terminate armoured cables into enclosures. It has a barrier seal that acts on the inner cores and a thermoset rubber seal that acts on the outer sheath of the cable. The E1EX~QS cable gland is supplied with a sealing washer as standard.
Design Specification	IEC 62444
Certification	IECEx, ATEX
Operating temperature	-20° C to +955° C
Ingress protection	IP66, IP67, IP68
Gland material	Nickel plated brass or stainless steel
Seal material	Barrier compound and thermoset elastomer
Gland sizes	16ss, 20ss, 20s, 20, 25s, 25, 32s, 32, 40s, 40, 50s, 50, 63s, 63, 75s, 75, 80, 90s, 90, 100, 115, 120, 130.
Data sheet	GI040914E
Assembly drawing No.	E1EX~QS- GLANDS – ASSEMBLY HAZARDOUS
Optional accessories	Earth tag, locknut, serrated washer, shroud.

Type	**E1EX-U**
Application	The E1EX-U cable gland is used to terminate armoured cables or cables with braid or tape screens into enclosures. It has seals that acts against the inner and outer sheaths of the cable. The E1EX-U cable gland is supplied with a sealing washer as standard.
Design Specification	IEC 62444
Certification	IECEx, ATEX
Operating temperature	-20° C to +955° C
Ingress protection	IP66, IP67, IP68
Gland material	Nickel plated brass or stainless steel
Seal material	Thermoset elastomer
Gland sizes	16ss, 20ss, 20ss, 20s, 20s, 20, 25s, 25, 32s, 32, 40s, 40, 50s, 50, 63s, 63, 75s, 75, 80, 90s, 90, 100.
Data sheet	GH050914E
Assembly drawing No.	0571 - ASSY
Optional accessories	Earth tag, locknut, serrated washer, shroud.

Type	**E1EX-U~QS**
Application	The E1EX-U~QS cable gland is used to terminate armoured cables or cables with braid or tape screens into enclosures. It has a barrier seal that acts on the inner cores and a thermoset rubber seal that acts on the outer sheath of the cable. The E1EX-U~QS cable gland is supplied with a sealing washer as standard
Design Specification	IEC 62444
Certification	IECEx, ATEX
Operating temperature	-20° C to +95° C
Ingress protection	IP66, IP67 IP68
Gland material	Nickel plated brass or stainless steel
Seal material	Barrier compound and thermoset elastomer
Gland sizes	16ss, 20ss, 20ss, 20s, 20s, 20, 25s, 25, 32s, 32, 40s, 40, 50s, 50, 63s, 63, 75s, 75, 80, 90s, 90, 100.
Data sheet	GH05a0914E
Assembly drawing No.	0571 - ASSY
Optional accessories	Earth tag, locknut, serrated washer, shroud.

Type	**EX CG**
Application	The EX-CG cable gland is used to terminate armoured cables into enclosures. It has seal that acts against the inner and outer sheaths of the cable. It is for use in highly corrosion and / or wet environments. The EX CG cable gland is supplied with a sealing washer as standard.
Design Specification	IEC 62444
Certification	IECEx, ATEX
Operating temperature	-20° C to +95° C
Ingress protection	IP66, IP67 IP68
Gland material	Nickel plated brass with a screw-on sheath made from PBT
Seal material	Thermoset elastomer
Gland sizes	16ss, 20ss, 20s, 20, 25s, 25, 32s, 32, 40s, 40, 50s, 50, 63s, 63, 75s, 75, 80, 90s, 90, 100.
Data sheet	GH070914
Assembly drawing No.	0547 - ASSY
Optional accessories	Earth tag, locknut, serrated washer.

Type	**EX CG~QS**
Application	The EX-CG~QS cable gland is used to terminate armoured cables into enclosures. It has a barrier seal that acts on the inner cores and a thermoset rubber seal that acts on the outer sheath of the cable. It is for use in highly corrosion and / or wet environments. The EX CG~QS cable gland is supplied with a sealing washer as standard.
Design Specification	IEC 62444
Operating temperature	-20° C to +95° C
Ingress protection	IP66, IP67 IP68
Gland material	Nickel plated brass with a screw-on sheath made from PBT
Seal material	Thermoset elastomer
Gland sizes	16ss, 20ss, 20s, 20, 25s, 25, 32s, 32, 40s, 40, 50s, 50, 63s, 63, 75s, 75, 80, 90s, 90, 100.
Data sheet	GH080914
Assembly drawing No.	0547 - ASSY
Optional accessories	Earth tag, locknut, serrated washer.

Type	**EX CG –LS (Lead Seal)**
Application	The EX CG - lead seal cable gland is used to terminate armoured cables into enclosures. It has seal that acts against the inner and outer sheaths of the cable. It is for use in highly corrosion and / or wet environments. The EX CG LS cable gland is supplied with a sealing washer as standard.
Design Specification	IEC 62444
Certification	ATEX
Operating temperature	-30° C to +180° C
Ingress protection	IP66, IP67 IP68
Gland material	Nickel plated brass with a screw-on sheath made from PBT
Seal material	Thermoset elastomer
Gland sizes	16ss, 20ss, 20s, 20, 25s, 25, 32s, 32, 40s, 40, 50s, 50, 63s, 63, 75s.
Data sheet	GH070914
Assembly drawing No.	0547 – ASSY
Optional accessories	Earth tag, locknut, serrated washer.

Type	**POSI GRIP**
Application	The POSI GRIP cable gland is used in highly corrosive explosive atmospheres to terminate unarmoured cables into enclosures. The POSI GRIP cable gland is supplied with a sealing washer as standard.
Design Specification	IEC 62444
Certification	ATEX
Operating temperature	-20° C to +95° C
Ingress protection	IP66, IP67 IP68
Gland material	Brass encapsulated in glass reinforced polyester (PBT).
Seal material	Thermoset elastomer
Gland sizes	20ss, 20s, 20, 25, 32, 40, 50, 63, 75
Data sheet	GH250414
Assembly drawing No.	0545 - ASSY
Optional accessories	Earth tag, locknut, serrated washer.

Type	**STOPEX F**
Application	The STOPEX F barrier cable gland is used to terminate unarmoured cables into enclosures. It has an epoxy putty barrier material that seals against the cable inner cores and an IP seal that acts against the outer sheath of the cable. The STOPEX F cable gland is supplied with a sealing washer as standard.
Design Specification	IEC 62444
Certification	IECEx, ATEX
Operating temperature	-20° C to +95° C
Ingress protection	IP66, IP67, IP68
Gland material	Nickel plated brass or stainless steel
Seal material	Barrier compound and thermoset elastomer
Gland sizes	16ss, 20ss, 20s, 20, 25s, 25, 32s, 32, 40s, 40, 50s, 50, 63s, 63, 75s, 75.
Data sheet	GH100513E
Assembly drawing No.	0550 - ASSY
Optional accessories	Earth tag, locknut, serrated washer, shroud.

Type	**STOPEX**
Application	The STOPEX barrier cable gland is used to terminate armoured cables into enclosures. It has an IP seal that acts against the outer sheath of the cable. The barrier compound is an epoxy putty material. The STOPEX cable gland is supplied with a sealing washer as standard.
Design Specification	IEC 62444
Certification	IECEx, ATEX
Operating temperature	-20° C to +95° C
Ingress protection	IP66, IP67 IP68
Gland material	Nickel plated brass or stainless steel
Seal material	Barrier compound and thermoset elastomer
Gland sizes	16ss, 20ss, 20s, 20, 25s, 25, 32s, 32, 40s, 40, 50s, 50, 63s, 63, 75s, 75.
Data sheet	GH100214
Assembly drawing No.	0515 - ASSY
Optional accessories	Earth tag, locknut, serrated washer, shroud.

Type	**VARITEX**
Application	The VARITEX cable gland is used to terminate copper tape sheathed (VSD) cables into enclosures. It has a seal that acts against the outer sheath of the cable. The VARITEX cable gland is supplied with a sealing washer as standard.
Design Specification	IEC 62444
Certification	IECEx
Operating temperature	-20° C to +80° C
Ingress protection	IP66, IP67 IP68
Gland material	Nickel plated brass or stainless steel
Seal material	Thermoset elastomer
Gland sizes	20s, 20, 20, 25s, 25, 32s, 32, 40s, 40, 50s, 50, 63s, 63, 63L, 75.
Data sheet	GH270214
Assembly drawing No.	0531 - 0 - 053107
Optional accessories	Earth tag, locknut, serrated washer, shroud.

Optional accessories	Adaptors, reducers, unions, connectors, stopper plugs for hazardous areas
Application	ADAPTORS & REDUCERS are used to change a thread size or type. UNIONS are used to change a male thread to a female thread of the same or different size/type. COUPLERS are used to change a female thread to a male one of the same or different size / type. HEX HEAD and DOME HEAD PLUGS are used to blank off threaded entries. STOPPER PLUGS are used to blank off threaded entries without the use of a headed section. They are tightened with an Allan key and there are two versions – one where the plug is tightened from the outside of the enclosure and the other where it is tightened from inside the enclosure. All ADAPTORS & REDUCERS, UNIONS, COUPLERS and PLUGS are supplied with a sealing washer, or washers, as standard.
Certification	IECEx, ATEX
Operating temperature	-20° C to +95° C
Ingress protection	IP66, IP67 IP68
Material	Brass (nickel plated) or stainless steel

Application/Limitation

Manufacturer's application and assembly instructions to be followed.
The information related to EN certification from recognised test institution is given as information only.

Type Approval documentation

Tests carried out

Type tests according to IEC/EN 60079-0, IEC/EN60079-1, IEC/EN 60079-7, IEC/EN 60079-15, IEC/EN 60079-31, IEC 60529, IEC 61241-1-1, IEC 61241-0

Marking of product

CCG cable termination (PTY) LTD – Type designation – IP rating (when claimed) - According to IECx Certificate of Conformity and /or Atex.

Periodical assessment

The scope of the periodical assessment survey is to verify that the conditions stipulated for the Type approval is complied with and that no alterations are made to the product design or choice of materials.

The main elements of the periodical assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Production Sample Tests (PST) and Routines (RT) checked (if not available tests according to PST and RT to be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and Type Approval Certificate.

Periodical assessment to be performed at least every second year.

END OF CERTIFICATE