

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

Certificate No.: **IECEx CML 19.0049X** Page 1 of 3 Certificate history:

Issue No: 0 Status: Current

Date of Issue: 2019-10-10

Applicant: **Peppers Cable Glands Limited**

Stanhope Road, Camberley, Surrey, GU15 3BT

United Kingdom

LT-C* Range of Barrier Cable Glands Equipment:

Optional accessory:

Type of Protection: Flameproof, Increased Safety, Dust, Restricted Breathing

Marking: Ex db I Mb or Ex eb I Mb

> Ex db IIC Gb Ex eb IIC Gb Ex ta IIIC Da Ex nR IIC Gc

Approved for issue on behalf of the IECEx A C Smith

Certification Body:

Position: **Technical Operations Director**

Signature:

(for printed version)

(for printed version)

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Certificate issued by:

Eurofins E&E CML Limited Unit 1, Newport Business Park New Port Road Ellesmere Port, CH65 4LZ **United Kingdom**







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Manufacturer: Peppers Cable Glands Limited

Stanhope Road, Camberley, Surrey, GU15 3BT

United Kingdom

Manufacturing locations:

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 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"

Edition:7.0

IEC 60079-15:2010 Explosive atmospheres - Part 15: Equipment protection by type of protection "n"

Edition:4

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

Edition:2

IEC 60079-7:2015 Explosive atmospheres – Part 7: Equipment protection by increased safety "e"

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 Report:

GB/CML/ExTR19.0133/00

Quality Assessment Report:

GB/CML/QAR19.0022/00



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

When used in accordance with relevant codes of practice, the LT-C* Range of Barrier Cable Glands allow circular and non-circular cable or conductors to enter into an enclosure without compromising the explosion protection that it provides. The glands are intended for use on liquid tight, flexible, metallic conduit that is wired with circular, unarmoured cables that are provided with or without braids or screens. The LT-C* Range of Barrier Cable Glands fitted with sealing rings, when installed in threaded holes or clearance holes with a lock nut and in accordance with the manufacturer's instructions, are capable of providing, with an enclosure on which they are fixed, an ingress protection rating of IP66 and IP68 to 100 metres for 7 days. They are manufactured from stainless steel or brass...

Refer to Certification Annex for equipment full description.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- 1. These glands shall not be used in enclosures where the temperature, at the point of entry/mounting, is outside of the range -60°C to +135°C.
- 2. When required to maintain the ingress protection, parallel threaded glands will be suitably sealed using a method that is applicable to the associated equipment to which they will be attached. This will be in accordance with the relevant installation code of practice.
- 3. The Ingress Protection rating that is required to ensure compliance with the standards used in this certificate was determined by testing the devices fitted into a representative enclosure having a smooth flat mounting surface. In practice, the interface between the male thread of the glands and their associated enclosure cannot be defined; therefore, it is the user's responsibility to ensure that the appropriate Ingress Protection level is maintained at these interfaces.
- 4. When installed in an explosive dust atmosphere, glands that are not fitted with interface o-ring seals shall only used with enclosures that have either:
- Parallel entries that will ensure that a minimum of 5 full threads of contact will be maintained, this is in accordance with clause 5.1.2 of EN 60079-31:2014.
- Tapered entries that will ensure that a minimum of 3 ½ full threads of contact will be maintained, this is in accordance with clause 5.1.2 of EN 60079-31:2014.
- 5. These cable glands are manufactured with a cylindrical flameproof joint between the entry body and the front ferrule. This joint is not intended for repair.
- 6. After initial assembly, the Outer Cap shall be released to enable inspection of the Olive Seal. There shall be no gap between the Olive Seal and the Ferrule Anchor. This ensures that all internal components are correctly sited and prevents the possibility of generating a source of ignition due to the release of an internal ignition. If there is a gap between the Olive Seal and the Ferrule Anchor, the Olive Seal shall be replaced. Consult the manufacturer.

Annex:

Certificate Annex IECEx CML 19.0049X Issue 0.pdf

Annexe to: IECEx CML 19.0049X Issue 0

Applicant: Peppers Cable Glands Limited

Apparatus: LT-C* Range of Barrier Cable Glands



When used in accordance with relevant codes of practice, the LT-C* Range of Barrier Cable Glands allow circular and non-circular cable or conductors to enter into an enclosure without compromising the explosion protection that it provides. The glands are intended for use on liquid tight, flexible, metallic conduit that is wired with circular, unarmoured cables that are provided with or without braids or screens. The LT-C* Range of Barrier Cable Glands fitted with sealing rings, when installed in threaded holes or clearance holes with a lock nut and in accordance with the manufacturer's instructions, are capable of providing, with an enclosure on which they are fixed, an ingress protection rating of IP66 and IP68 to 100 metres for 7 days. They are manufactured from stainless steel or brass and comprise from front (enclosure side) to rear (incoming cable side) the following component parts:

- Entry body to tighten into an associated enclosure which is fitted with an optional interface O-ring seal on metric threaded variants. The front and rear of the body having male threads.
- Front ferrule that fits into the entry body. The ferrule body is one part of a two-part chamber where a two-part "elastomeric" epoxy putty setting compound is applied to provide an inner seal around the conductors. The external face, when fitted into the entry body, makes an unthreaded cylindrical flamepath.
- O-ring fitted over the rear of the front ferrule to provide an ingress seal to the unthreaded flamepath between the entry body and front ferrule.
- Rear ferrule anchor, second part of a two-parts compound chamber, unthreaded flamepath between the entry body and front ferrule.
- Conduit olive that is compressed and seals the associated liquid tight conduit onto the rear external spiral feature of the rear ferule via the outer cap.
- Outer cap that has female thread at the front and secures the olive against the rear ferrule, in turn ensuring the front ferrule is in place within the entry body when tightened onto the rear of the entry body.

The following table details typical thread sizes and cable/conduit that can be accommodated within the LT-C Barrier Glands:

Gland Size	Standard Trade Size		Max Diameter	Max No. of Cores	Max Cable Inner Sheath	Typical Conduit I/D	Conduit Outer Sheath
	Metric	NPT	Over Cores		mm	mm	mm
20S-1	M20	1/2"	5.0	9	5.0	6.2 – 7.1	11.4 – 12.9
20S-2	M20	1/2"	7.8	20	7.8	9.8 – 10.3	14.2 – 15.6
20-1	M20	1/2"	10.4	35	10.4	12.1 – 13.0	17.0 – 19.1
20-2	M20	1/2"	12.5	40	13.3	15.8 – 16.3	20.8 – 22.3
25-1	M25	3/4"	17.8	60	18.0	20.8 – 21.3	26.0 – 27.8
32-1	M32	1"	23.5	80	23.6	26.0 – 27.1	32.7 – 34.5

Unit 1, Newport Business Park New Port Road Ellesmere Port CH65 4LZ



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40-1	M40	1 1/4"	28.8	130	31.8	34.8 – 35.8	41.1 – 43.3
50-1	M50	2"	37.0	200	37.0	40.0 – 40.6	47.3 – 49.4
63-1	M63	2 ½"	48.0	300	48.0	50.5 – 51.9	59.4 – 61.4
75-1	M75	3"	59.3	325	59.3	62.9 – 63.9	72.1 – 74.1
75-2	M75	3"	60.8	425	68.0	77.9 – 78.7	87.8 – 90.0

Design Options:

- 1. As detailed on drawing number PCG/ETDUL, glands can be manufactured with alternative entry thread and hexagon dimensions.
- 2. These glands are typically manufactured with Metric or NPT threaded entries; however, as detailed on drawing number PCG/ETDMV other thread types are available.
- 3. These glands have the option to be plated.
- 4. Type LT-C* Barrier Gland for Liquid Tight Conduit
- 5. Parallel threaded glands with thread length increased to 10mm are suitable for increased safety application.
- 6. The cable gland types in the description, may be manufactured with a size larger than the standard size on the entry component.
- 7. The cable glands type in the description may manufactured to the following standards:
 - NPSM to ANSI/ASME B1.20.1:1983, gauging to clause 9
 - BSPT to BS 21:1985 (ISO 7/1) standard threads only clause 5.4, gauging to clause 5A, system A
 - BSPP to BS 2779:1986 (ISO 228/1) class A full form external threads
 - PG to DIN 40430:1971
 - ET to BS 31:1940 (1979) Table A

Notes:

- Sira 14ATEX1303X and IECEx SIR 14.0106X are superseded by certificates CML 19ATEX1171X and IECEx CML 19.0049X.
- The product covered by Issue 0 of this certificate remains identical to that previously covered by Sira 14ATEX1303X and IECEx SIR 14.0106X.
- Where Sira 14ATEX1303X and/or IECEx SIR 14.0106X is specified in other product certification, or other technical specifications, this certificate reference for the product shall be used in its place; updating of the other product certificate or technical specification is not required.