

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 19.0105X** Page 1 of 3 Certificate history:

A C Smith

Issue No: 0 Status: Current

Date of Issue: 2019-10-10

Peppers Cable Glands Limited Applicant:

Stanhope Road Camberley Surrey GU15 3BT **United Kingdom**

ACDP Breather Drains Equipment:

Optional accessory:

Type of Protection: **Increased Safety, Dust**

Marking: Ex eb IIC Gb

Ex eb I Mb

Ex ta IIIC Da

Approved for issue on behalf of the IECEx

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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Date of issue: 2019-10-10 Issue No: 0

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

Edition:2

IEC 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

Edition:5.1

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:

The breather drain plug is designed to allow moisture emission from Ex e and Ex ta enclosures and to allow air within the enclosure to breathe with the surrounding atmosphere. The device body may be manufactured from aluminium, brass or stainless steel with a 10 mm long metric or NPT thread. The body is machined to house a sintered bronze or stainless-steel filter. Drainage channels through the body allow for the passage of moisture through the filter.

Refer to Certification Annex for full equipment description.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- 1. The breather/drains are only suitable for bottom entry applications within associated Ex eb and Ex ta enclosures.
- 2. The products are approved for a temperature range at their point of mounting based upon the interface seal and material combinations of construction:
- No seal fitted (-100°C to +400°C)
- Nitrile O-ring (-30°C to +100°C)
- Neoprene O-ring (-35°C to +90°C)
- Silicone O-ring (-60°C to +200°C)
- Fluorosilicone O-ring (-55°C to +200°C)
- Viton O-ring (-20°C to +180°C)
- EPDM O-ring (-50°C to +110°C)
- 3. When no seal is fitted and the breather drain is installed in an increased safety (Ex e) enclosure, the user shall ensure that a minimum degree of protection IP54 is maintained.
- 4. When used in explosive dust atmospheres, the breather drain shall be fitted with sealing a ring except when installed into a tapered threaded hole. In this case the short threaded versions 10 mm (1/4" NPT, 3/8" NPT) or 13 mm (1/2" NPT, 3/4" NPT) shall be used to ensure that a minimum of 3 full threads of contact will be maintained. This is in accordance with clause 5.3.2 of EN 60079-31: 2014.
- 5. The M12 and ¼" NPT threaded breather drains made of brass and intended for mining (Group I) applications shall be installed in areas where they are subject to low risk of mechanical impact or are protected from mechanical damage.

Annex:

Certificate Annex IECEx CML 19.0105X Issue 0.pdf

Annexe to: IECEx CML 19.0105X Issue 0

Applicant: Peppers Cable Glands Limited

Apparatus: ACDP Breather Drain



The breather drain plug is designed to allow moisture emission from Ex e and Ex ta enclosures and to allow air within the enclosure to breathe with the surrounding atmosphere. The device body may be manufactured from aluminium, brass or stainless steel with a 10 mm long metric or NPT thread. The body is machined to house a sintered bronze or stainless-steel filter. Drainage channels through the body allow for the passage of moisture through the filter.

The device may be screwed into the wall of an enclosure or into a through hole, being secured by a castellated locknut.

Parallel threaded Breather Drains may be fitted with or without an O-ring seal, see below for approved seals. When fitted with an O-ring seal and screwed into the wall of an enclosure or into a through hole, being secured with a castellated locknut, they will maintain IP66 degree of protection.

Tapered threaded Breather Drain may be fitted with or without an O-ring seal, see below for approved seals. When fitted with an O-ring seal and secured into a through hole, they will maintain IP66 degree of protection.

Design Options

Extended Thread Length:

The breather drain plug may be machined with a long thread. Long threads have two additional drainage channels machined into the thread.

The breather drain may have the following threads:				
M12	M25	3/8" NPT		
M16	M32	½" NPT		
M20		1/4" or 3/4" NPT		

Alternatively, the breather drains may be provided with the following, but not limited to, alternative thread forms of an equivalent size:

- 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

'O' ring seals materials fitted to male thread forms may be provided in the				
following materials to suit the application:				
Nitrile O-ring		Fluorosilicone O-ring		





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Neoprene O-ring	Viton O-ring
Silicone O-ring	EPDM O-ring

Materials of Manufacture and Marking:

The breather drain plugs may be manufactured from the following materials:

Brass grade CW614N (CuZn 38Pb4)/ CZ121 4Pb	I M2 / II 1D 2G
Brass grade Ecobrass C69300	I M2 / II 1D 2G
Stainless Steel 1.4401/ 316 S31	I M2 / II 1D 2G
Stainless Steel 1.4404/ 316 S11	I M2 / II 1D 2G
Stainless Steel 1.4301/304	I M2 / II 1D 2G
Aluminium AW6082/ AW 6262/ 6082T6	II 1D 2G

The products may additionally be metallic plated with either: Nickel, Zinc or Anodised (0.008 mm thick max.) to suit the application.

Product Type Ref:

The product type is derived from the following options:

A-B-C-D-E-F-G

Α	Product type ACDP =	Breather drain	
В	IP Seal code		
	0 =	No seal fitted	-100°C to 400°C
	1 =	Nitrile O-ring	-30°C to 100°C
	2 =	Neoprene O-ring	-35°C to 90°C
	3 =	Silicone O-ring	-60°C to 200°C
	4 =	Fluorosilicone O-ring	-55°C to 200°C
	5 =	Viton O-ring	-20°C to 180°C
	6 =	EPDM O-ring	-50°C to 110°C
С	Material of manufacture		
	A =	Aluminium	
	B =	Brass	



S = Stainless-Steel

D Certification order code

E Plating

OO = Not plated

NP = Nickel plated

ZP = Zinc

AN = Anodized

F Thread size

Metric = M12/M16/M20/ M25/ M32

NPT = $\frac{1}{4}$ "/ $\frac{3}{8}$ " / $\frac{1}{2}$ "/ $\frac{3}{4}$ "

G Lock nut

X = No lock nut

S = Stainless Steel Option

Notes:

- Sira 09ATEX3321X and IECEx SIR 09.0132X are superseded by certificates CML 19ATEX3347X and IECEx CML 19.0105X.
- The product covered by Issue 0 of this certificate remains identical to that previously covered by Sira 09ATEX3321X and IECEx SIR 09.0132X.
- Where Sira 09ATEX3321X and/or IECEx SIR 09.0132X 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.