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 25.0004X**

Certificate history:

Status: **Current**

Issue No: 0

Date of Issue: 2025-03-12

Applicant: **CMP Products**
36 Nelson Way
Nelson Park East
Cramlington
Northumberland
NE23 1WH
United Kingdom

Equipment: **Type 781D and 781E breather drain plugs**

Optional accessory:

Type of Protection: **Flameproof Ex "db", Increased Safety Ex "eb", Dust Ignition Ex "ta"**

Marking: Ex db IIC Gb (781D only)

Ex eb IIC Gb (781E only)

Ex ta IIIC Da

Approved for issue on behalf of the IECEx Certification Body: **L A Brisk**

Position: **Assistant Certification Manager**

Signature: (for printed version)

Date: (for printed version) 12 Mar 2025

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.

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: **CMP Products**
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Manufacturing locations: **CMP Products**
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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 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
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/ExTR25.0034/00

Quality Assessment Report:

GB/CML/QAR19.0001/07

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

The Type 781D and 781E breather drain plugs are made in thread forms M20 x 1.5 and M25 x 1.5 (or equivalent) and are intended for mounting to an enclosure to permit the passage of the internal moisture out of the enclosure.

See Annex for full description and Condition of Manufacture.

SPECIFIC CONDITIONS OF USE: YES as shown below:
See Annex for Specific Conditions of Use.

Annex:

IECEx CML 25.0004X Iss. 0 Annex.pdf

Annexe to:	**IECEx CML 25.0004X Issue 0**
Apparatus:	**Type 781D and 781E breather drain plugs**
Applicant:	**CMP Products**

Description

The Type 781D and 781E breather drain plugs are made in thread forms M20 x 1.5 and M25 x 1.5 (or equivalent) and are intended for mounting to an enclosure to permit the passage of the internal moisture out of the enclosure.

The Type 781D breather drain is intended for installation into a threaded entry on a flameproof enclosure and the Type 781E is intended for installation into a threaded entry or a clearance hole on an increased safety enclosure, both are suitable for installation into a threaded or clearance hole on an enclosure providing the type of protection 'dust protection by enclosure'. The 781E is supplied with a locknut which is castellated to facilitate draining when fitted to a clearance hole.

Each device comprises a metallic, hexagonal bar with a cylindrical portion at one end and a male entry thread fitted with an O-ring at the other. The breather drain plugs contain two through holes which interface at right angles, one located on the cylindrical portion and the other penetrating, axially to the hollow section below the threaded portion. The hollow section contains a 5 mm thick 0.36 sg felt plug which is a press fit.

The entry thread of the Type 781E drain plug has two axial slots cut along its length 180° opposed to each other. The drainage channels through the body allows for the passage of moisture through the felt pad.

The Type 781D plug has a threaded inner portion into which is screwed a plug to form a threaded flamepath. Moisture is allowed to drain through this flamepath.

The Type 781D plug can be used with enclosures up to 30 litres for Group IIB gases and enclosure up to 2.5 litres for Group IIC gases.

Alternative entry component thread forms:

Metric	ISO 965-1, ISO 965-3 medium fit (6g) for external threads
ET (Conduit)	BS31:1940 (1979), Table A
PG	DIN 40430:1971
BSPP	BS2779:1986 class A full form for external threads
BSPT	BS21:1985 standard threads only as clause 5.4, gauging to clause 5.2 system A
ISO	ISO 7/1:1994, gauging to ISO 7/2 clause 6.3 for external threads
NPT	ANSI/ASME B1.20.1-2013 gauging to clause 3.2 for external threads
NPSM	ANSI/ASME B1.20.1-2013 gauging to clause 6.4 for external threads

Notes:

- IECEx CML 18.0187U is superseded by this certificate.
- The product covered by Issue 0 of this certificate remains identical to that previously covered by IECEx CML 18.0187U.

- Where IECEx CML 18.0187U 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.

Conditions of Manufacture

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

i. The Type 781D shall not be made from Nylon 6.

Specific Conditions of Use

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

i. The products are approved for the following temperature ranges at their point of mounting:

Type	Type 781D	Type 781D	Type 781D	Type 781E	Type 781E	Type 781E
Body	Metallic	Metallic	Metallic	Metallic	Metallic	Nylon
O-ring	N/A	Viton	Silicone	Viton	Silicone	Viton/Silicone
Range	-60°C to +130°C	-20°C to +130°C	-60°C to +130°C	-20°C to +130°C	-60°C to +130°C	-20°C to +105°C

ii. The following surface temperatures were observed during testing of the Type 781D breather/drain plug with the following maximum permitted volumes of enclosures:

(The following temperatures are to be added to the maximum permitted ambient temperature of the equipment the 781D breather is mounted to in order to obtain the maximum surface temperature)	
Maximum 2.5 litre volume enclosure for Gas Group IIC	4°C
Maximum 30 litre volume enclosure for Gas Group IIB	42°C

iii. The Type 781 breather/drain plugs shall be installed in the bottom face of enclosures only.
iv. The Type 781 breather/drain plugs shall not be used with any form of adaptors or reducers.
v. The Type 781D breather/drain plug have undergone overpressure testing at 160 bar (4x40 bar).

Components used which are covered by Ex Certificates issued to older editions of Standards

None.

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