

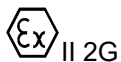


EU Type Examination Certificate CML 18ATEX1330U Issue 0

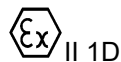
- 1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 2 Component **Type 781D and Type 781E Breather/Drain Plugs**
- 3 Manufacturer **CMP Products Ltd**
- 4 Address **Unit 36 Nelson Way,
Nelson Park East,
Cramlington, NE23 1WH,
United Kingdom**
- 5 The component is specified in the description of this certificate and the documents to which it refers.
- 6 CML B.V. , Chamber of Commerce No 6738671, Hoogoorddreef 15, Amsterdam, 1101 BA, 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 component 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 The 'U' suffix after the certificate number indicates that the equipment component 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 60079-0:2018 EN 60079-1:2014 EN 60079-7:2015+A1:2018
EN 60079-31:2014
- 10 The equipment shall be marked with the following:



Ex db IIC Gb (781D)
Ex eb IIC Gb (781E)



Ex ta IIIC Da



**CML 18ATEX1330U
Issue 0**

11 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.

Materials of manufacture:

The standard material supplied is:

Brass	BS EN 12164:2011/ BS EN 12168:2011 Grade CuZn39Pb3 (CW614N) All brass manufactured component parts can be optionally nickel plated to a maximum of 0.008mm
-------	---

Alternate materials are:

Stainless steel	BS EN 10088-3:2014 Grades 316S11, 316S13, 316S31, 316S33, 316L
Mild steel	BS EN 10277-2:2008 Grades 220M07, 230M07 (EN1A) / 220M07Pb, 230M07Pb (EN1APb)
Aluminium	BS EN 573-3:2013 / BS EN 755-1-3:2008 Grade 6082 T6, 6262 T6 / BS EN 1676:2010 Grade LM25 TF



CML 18ATEX1330U
Issue 0

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:

- Sira 10ATEX1307U and IECEx SIR 10.0149U is superseded by this certificate.
- The product covered by Issue 0 of this certificate remains identical to that previously covered by Sira 10ATEX1307U and IECEx SIR 10.0149U.
- Where Sira 10ATEX1307U and/or IECEx SIR 10.0149U 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.

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	26 Mar 2019	R12060G/00	Issue of Prime Certificate

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.

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



**CML 18ATEX1330U
Issue 0**

14 Schedule of Limitations

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 781E	Type 781E	Type 781E
Body	Metallic	Metallic	Metallic	Nylon
O-ring	N/A	Viton	Silicone	Viton/Silicone
Range	-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).

Certificate Annex

Certificate Number CML 18ATEX1330U
Equipment Type 781D and Type 781E Breather/Drain Plugs
Manufacturer CMP Products Ltd



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

Issue 0

Drawing No	Sheets	Rev	Approved date	Title
GA295	1 of 1	03	26 Mar 2019	Type 781 General arrangement and marking