IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx SIR 10.0149U issue No.:2

Status: **Current**

Date of Issue: **2013-09-26** Page 1 of 5

Certificate history:
Issue No. 2 (2013-9-26)
Issue No. 1 (2013-7-3)
Issue No. 0 (2011-4-18)

Applicant:
CMP Products Limited
Glasshouse Street
St Peters
Newcastle upon Tyne NE6 1BS
United Kingdom

Electrical Apparatus: **Type 781D Breather/Drain Plugs and Type 781E Breather/Drain Plugs**
Optional accessory:

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

Marking:
Type 781D
Ex d IIC Gb
Ex ta IIIC Da
Type 781E
Ex e IIC Gb
Ex ta IIIC Da

Approved for issue on behalf of the IECEx Certification Body: C Ellaby

Position: Deputy Certification Manager

Signature:
(for printed version)

Date: 2013-09-26

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 the Official IECEx Website.

Certificate issued by:

SIRA Certification Service
Rake Lane
Eccleston
Chester
CH4 9JN
United Kingdom

sira CERTIFICATION

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Manufacturer: **CMP Products Limited**
Glasshouse Street
St Peters
Newcastle upon Tyne NE6 1BS
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Additional Manufacturing location (s):

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 electrical apparatus 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 : 2011 Edition: 6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2007-04 Edition: 6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-31 : 2008 Edition: 1	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure 't'
IEC 60079-7 : 2006-07 Edition: 4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

*This Certificate **does not** indicate compliance with electrical 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/SIR/ExTR11.0090/00 GB/SIR/ExTR13.0175/00 GB/SIR/ExTR13.0264/00

Quality Assessment Report:

GB/SIR/QAR07.0009/02 GB/SIR/QAR07.0009/03 GB/SIR/QAR07.0009/04

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Schedule

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.
The Type 781D breather Drain is intended for installation to a threaded entry on an 'Ex d' enclosure and the Type 781E can be fitted to a threaded entry or a clearance hole on an 'Ex e' 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 allow 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 enclosures up to 2.5 litres for group IIC gases.

CONDITIONS OF CERTIFICATION: NO

IECEx Certificate of Conformity

Certificate No.: IECEx SIR 10.0149U

Date of Issue: **2013-09-26** Issue No.: **2**

EQUIPMENT(continued):

Entry Thread options:

Metric to BS 3643:1981
BSPP to BS 2779:1973
BSPT to BS 21:1985
ET to BS 31: 1940
ISO to ISO 7/1:1982
NPT to ANSI/ASME B1.20.1-1983
PG to DIN 40430:1971
NPT to USAS B2.1-1968
NPSM to ANSI/ASME B1.20.1-1983
BSW to BS84:1956

Material options for metallic parts:

Brass (standard)
Mild steel
Stainless steel or
Aluminium with a magnesium content less than 6% by weight
The User/Installer shall comply with the following:

Schedule of Limitations

The User/Installer shall comply with the following:

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

Type 781D	Type 781E (Metallic body / Viton O-ring):	Type 781E (Metallic body / Silicon O-ring):	Type 781E (Nylon body):
-60°C to 130°C	-20°C to +130°C	-60°C to +130°C	-20°C to +105°C

Condition of manufacture

The Manufacturer shall comply with the following:

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

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Issue 1 – this Issue introduced the following changes:

1. The following modifications of the 781E Breather Drain were acknowledged:
   - A minor alteration of the threaded section was permitted.
   - The introduction of Nylon 6 as an alternative material of construction, the general design being the same as the metallic versions. As a result of this change, the associated Schedule of Limitations was amended and a Condition of Manufacture was added.

Issue 2 – this Issue introduced the following changes:

1. As an alternative to the existing Viton O-ring, the metallic Type 781E Breather/Drain Plugs are now allowed to be fitted with a silicone O-ring enabling the lower service temperature of this version to be reduced from -20°C to -60°C; the relevant condition was amended accordingly.
2. Following appropriate assessment to demonstrate compliance with the requirements of the latest technical knowledge, IEC 60079-0:2007, was replaced by IEC 60079-0:2011.