



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

Ex COMPONENT CERTIFICATE

Certificate No.: **IECEx DNV 25.0139U** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2026-03-19

Applicant: **METALMECH ENGINEERING**
Plot No. 4246, GIDC, Dared,
Phase - III, Road No. E,
Jamnagar, Gujarat 361 004
India

Ex Component: Drain Plug / Breather

This component is NOT intended to be used alone and requires additional consideration when incorporated into other equipment or systems for use in explosive atmospheres (refer to IEC 60079-0).

Type of Protection: **Ex db, Ex eb, Ex tb**

Marking: Ex db IIC Gb
Ex eb IIC Gb
Ex tb IIIC Db IP 66
(-60°C ≤ Ta ≤ +160°C)

Approved for issue on behalf of the IECEx
Certification Body:

Asle Kaastad

Position:

Certification Manager

Signature:
(for printed version)

Date:
(for printed version)

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.
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Certificate issued by:

DNV Product Assurance AS
Veritasveien 1
1363 Høvik
Norway





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Manufacturer: **METALMECH ENGINEERING**
Plot No. 4246, GIDC, Dared,
Phase - III, Road No. E,
Jamnagar, Gujarat 361 004
India

Manufacturing
locations: **METALMECH ENGINEERING**
Plot No. 4246, GIDC, Dared,
Phase - III, Road No. E,
Jamnagar, Gujarat 361 004
India

METALMECH ENGINEERING
Plot No. 3679-3680-3681, Road No.6,
GIDC, Phase-III, Dared, Jamnagar,
Gujarat 361004
India

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 component 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 60079-31:2022 Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"
Edition:3.0

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 component listed has successfully met the examination and test requirements as recorded in:

Test Report:

NO/DNV/ExTR25.0123/00

Quality Assessment Report:

NO/PRE/QAR20.0014/05



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Ex Component(s) covered by this certificate is described below:

The MM BD * * * * Series Drain Plug / Breathers for breathing and draining functions are qualified for Ex 'd', Ex 'e' and Ex 't' protection concepts.

Stainless steel sintered element is press fitted in to the main body and secured with a screwed plug. The main body and screwed plug are made from various grades of brass materials with nickel plating or stainless steel SS304 / SS 316L grade material.

The drain plug / breather has the following basic thread size options: M16X1.5, M20X1.5, M25X1.5, 3/8" NPT, 1/2" NPT and 3/4" NPT.

It can be used with threaded entries. Metric versions of the drain plugs / breathers are fitted with PTFE washer and NPT versions of the drain plug / breathers are used with thread sealant to ensure efficient sealing to an associated enclosure and meets the requirements of IP66 to the IEC 60529 standard;

It can be used with flameproof enclosures of volume up to 4.4 litres and up to 15.5 litres for gas group IIC.

At the point of mounting, drain plugs / breathers are suitable for a service temperature range of -60°C to +160°C.

SCHEDULE OF LIMITATIONS:

- 1) The Drain Plug/ Breathers are only suitable for bottom entry applications.
- 2) The drain plugs / breathers must not be used with an adaptor / reducer in Ex 'd' applications.
- 3) When the drain plugs / breathers with metric threads are fitted in threaded entries, the sealing face of the enclosure shall be smooth, the threaded hole shall be perpendicular to the wall of the enclosure and shall be a medium fit thread.
- 4) The drain plugs / breathers shall be tightened to a torque value specified in the instruction manual.
- 5) MM BD * * * * Series drain plugs / breathers have undergone overpressure test at 60 bar (1.5 X 40 bar) Hence, it can be used on a flameproof enclosure not exceeding a reference pressure of 40 bar.
- 6) For flameproof applications with MM BD * * * * Series drain plugs / breathers, in determining the temperature class of the Ex d equipment to which the drain plug/ breather is fitted, following maximum surface temperature rise of the sinters which includes safety factor of 1.2 should be considered.

Enclosure volume up to 4.4 litres	40.08 K
Enclosure volume up to 15.5 litres	97.32 K

- 7) The service temperature range of PTFE washer is -60°C to +160°C.
- 8) Dust layers shall be prevented from building up on the outside surface of the drain plugs / breathers, and the drain plugs / breathers shall be routinely cleaned.
- 9) MM BD * * * * Series Drain Plug / Breather can only be used with threaded entries. When versions with NPT threads are fitted in threaded entries, the end-user must ensure that the necessary IP protection is guaranteed; this can be done by using a suitable thread sealing agent appropriate to minimum ambient temperature and temperature class of the equipment on which it is installed.
- 10) User shall refer to the type identification in certificate / instructional manual for the details of thread form and size.

Annex:

[Annex to certificate IECEx DNV 25.0139U Issue 0.pdf](#)

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Type Identification of MM BD * * * * Series Drain Plug / Breather:

