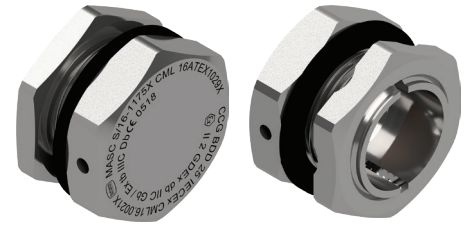


BREATHER DRAIN PLUG

Ex db, Ex eb, Ex tb

for General Industrial and Hazardous Area Installations



Features and Benefits

- Enables equipment to breathe whilst maintaining relevant protection levels.
- Drains water from equipment that is susceptible to moisture collection whilst maintaining relevant protection levels.
- No limitations on the volume of enclosures.
- The Exe version is supplied with a castellated nut or optional serrated gasket with standard locknut for high vibration applications.
- Precision manufactured from high quality brass (Marine Grade Electroless Nickel Plated™) available in stainless steel 316/316L on request.
- Supplied with thread sealing gasket as standard.

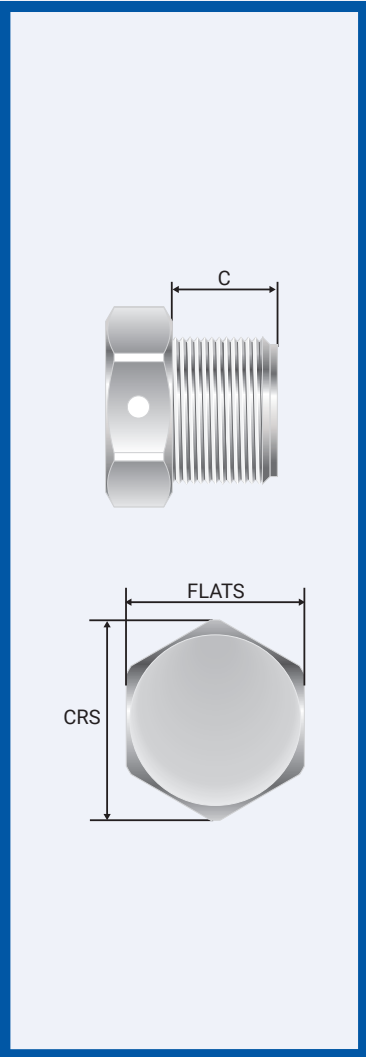


Technical Data

Type:	Breather Drain Plugs for Ex d and Ex e applications.
Material:	
Body / Plug:	Brass (Marine Grade Electroless Nickel Plated™), Stainless Steel 316/316L
Sinter:	Bronze or stainless steel.
Gasket material:	Standard HDPE, Nylon 66 or Extreme Temp. PTFE

Standards and Certifications

Equipment Protection Levels:	IECEX: (BD***E) Exe IIC Gb / Ex tb IIIC Db IECEX: (BD***D) Ex d IIC Gb / Ex tb IIIC Db ATEX: (BD***E) II 2 G D Ex eb IIC Gb / Ex tb IIIC Db (BD***D) II 2 G D Ex db IIC Gb / Ex tb IIIC Db INMETRO: (BD***E) Ex e IIC Gb / Ex tb IIIC Db (BD***D) Ex db IIC Gb / Ex tb IIIC Db TR CU: (BD***E) 1 Ex e IIC Gb X / Ex tb IIIC Db X (BD***D) 1 Ex db IIC Gb X / Ex tb IIIC Db X	
Conformance:	Standard:	Certificate:
IECEX	IEC 60079 Part 0, 1, 7, 31	IECEX CML 16.0021X
ATEX	EN 60079 Part 0, 1, 7, 31	CML 16ATEX1029X
INMETRO (Brazil)	ABNT NBR IEC 60079 Part 0, 1, 7, 31	TÜV 16.1857X
TR CU (Russia)	ГОСТ Р МЭК 60079-0, 7, 31 ГОСТ IEC 60079-1	TC RU C-ZA.ME92.B.00695
SANS/IEC	IEC 60079 Part 0, 1, 7, 31 IEC 60529	MASC MS/16-1175X
IP66 - BD***E	IEC 60529	IECEX CML 16.0021X
IP6X - BD***D	IEC 60529	IECEX CML 16.0021X
Marine ABS	IEC 60079 Parts 0, 1, 7, 15, 31 and IEC 60529	ABS 20-SG1952706-1 PDA



Conditions for Safe Use

- The breather drain plugs shall be used with the supplied thread sealing gaskets and the installer shall ensure that the surface of the enclosure against which the thread sealing gasket seals is in good condition.
- The breather drain plugs must be installed at the bottom of the equipment.
- The breather drain plugs must be installed directly to equipment and shall not be used with any form of entry device such as adaptors or reducers.
- The service temperature ranges shall not be exceeded as per Table 1.

Table 1

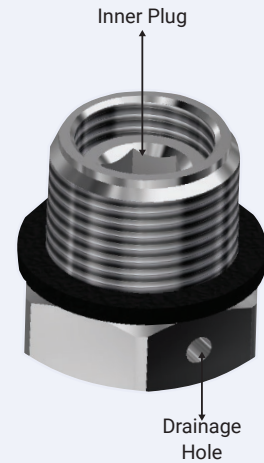
Breather / Drain	Service Temp.
BD***D (All arrangements)	-60°C to +95°C
BD***E (HDPE gasket)	-60°C to +95°C
BD***E (Nylon gasket)	-60°C to +100°C
BD***E (PTFE gasket)	-60°C to +160°C

Product Code	Protection Level	Entry Thread		Hexagonal Detail		Installation Torque Value Nm
		Type	Minimum Length 'C'	Maximum 'Flats'	Maximum 'Crns'	
BDM12E	Exe	M12x1.5	12.0	18.0	20.3	21.0
BDM16E	Exe	M16x1.5	12.0	22.0	24.8	21.0
BDM20E	Exe	M20x1.5	12.0	24.0	27.0	21.0
BDM25E	Exe	M25x1.5	12.0	32.0	36.0	30.0
BDN12E	Exe	½NPT	15.0	24.0	27.0	21.0
BDN34E	Exe	¾NPT	15.0	32.0	36.0	30.0
BDM20D	Exd	M20x1.5	15.0	24.0	27.0	21.0
BDM25D	Exd	M25x1.5	15.0	32.0	36.0	30.0
BDN12D	Exd	½NPT	15.0	24.0	27.0	21.0
BDN34D	Exd	¾NPT	15.0	32.0	36.0	30.0

All dimensions except NPT are in mm. Larger thread sizes are available.

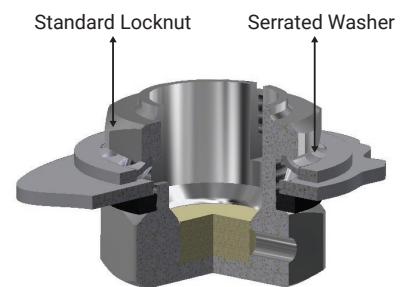
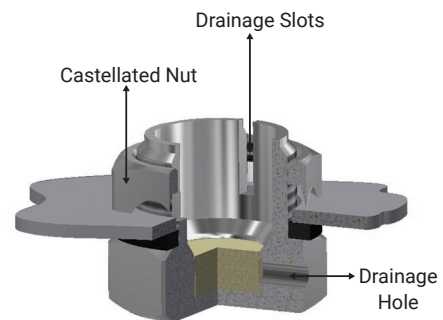
Ex d, Ex tb, BREATHER / DRAIN PLUG

1. Ensure that the inner plug is fully tightened into the breather/ drain body.
2. The Ex d breather drain plug must be fitted to an appropriate threaded entry at the bottom of the equipment.
3. Tighten to torque as shown in the table below (metric threads). NPT versions should be tightened 'wrench tight'.
4. If the entry thread is NPT then appropriate thread sealing means may be used.



Ex e, Ex tb, BREATHER / DRAIN PLUG

1. The Ex e breather drain plug must be fitted to the bottom of the equipment. It can be screwed into a threaded entry or secured in a clearance hole using the castellated nut supplied.
2. In high vibration applications the Ex e breather drain plug may optionally be secured using a serrated washer and standard locknut.
3. Tighten locknuts to secure the breather/drain. Note that the Ex e breather drain has slots cut in its threads to assist draining. Excessive tightening of the locknut may cause thread distortion.



Product Code	Protection Level	Entry Thread		Hexagonal Detail		Installation Torque Value Nm
		Type	Minimum Length 'C'	Maximum 'Flats'	Maximum 'Crns'	
BDM12E	Ex e	M12 x 1.5	12.0	18.0	20.3	16.0
BDM16E	Ex e	M16 x 1.5	12.0	22.0	24.8	18.0
BDM20E	Ex e	M20 x 1.5	12.0	24.0	27.0	21.0
BDM25E	Ex e	M25 x 1.5	12.0	32.0	36.0	30.0
BDN12E	Ex e	½" NPT	15.0	24.0	27.0	21.0
BDN34E	Ex e	¾" NPT	15.0	32.0	36.0	30.0
BDM20D	Ex d	M20 x 1.5	15.0	24.0	27.0	21.0
BDM25D	Ex d	M25 x 1.5	15.0	32.0	36.0	30.0
BDN12D	Ex d	½" NPT	15.0	24.0	27.0	21.0
BDN34D	Ex d	¾" NPT	15.0	32.0	36.0	30.0

All dimensions except NPT are in mm. **Larger thread sizes are available.**