



Mining And Surface Certification (Pty) Ltd

2015/021934/07

THIS CERTIFICATE IS ISSUED AS AN I.A. CERTIFICATE IN TERMS OF THE RELEVANT REGULATIONS OF THE MINERALS ACT (INCORPORATING THE MINE HEALTH AND SAFETY ACT) AND THE ELECTRICAL MACHINERY REGULATIONS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT.

IA CERTIFICATE	MASC MS/16-1175X	Issue	2
Issue Date	05 February 2021	Expiry Date	04 July 2030
** Based on Certificate No	IECEX CML 16.0021X	Issue / Variations / Amendment	3
Requested by	CCG Cable Terminations (Pty) Ltd 33-37 Forge Road, Spartan Industrial Area, Kempton Park, 1619, South Africa		
Manufacturer	CCG Cable Terminations (Pty) Ltd 33-37 Forge Road, Spartan Industrial Area, Kempton Park, 1619, South Africa		
Description	BD**** Breather/Drain Plugs and BA***E Breather/Drain Adapter for Hazardous Areas Refer to Annex for full description.		
Equipment	Breather / Drainer Plugs & Adaptors	Type	BD**** Breather / Drainer Plugs and BA***E Breather Drainer Adapter
MARKING: Original marking as per certificate * remains applicable. <i>IA number must be added.</i>	Type: Refer to Annex Ex Marking: BD***E & BA***E Ex eb IIC Gb Ex eb I Mb Ex tb IIIC Db IP66 IA Number: MASC MS/16-1175X Warnings: See Base Certificate ** (original marking must be applied)		BD***D Ex db IIC Gb Ex db I Mb Ex tb IIIC Db IP6X 'dust-tight'
Quality Assurance report (QAR) / Notification (QAN) Expiry date:	ZA/ICS/QAR14.0001/06		
Compliance:	The equipment as described above has been allocated the rating <u>Explosion Protected as above</u> utilizing the SANS/IEC Standards: <ul style="list-style-type: none"> SANS (IEC) 60079-0: 2019 (2017) Explosive atmospheres - Part 0: Equipment - General requirements SANS (IEC) 60079-1: 2015 (2014) Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d" SANS (IEC) 60079-31: 2014 (2013) Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t" SANS (IEC) 60079-7: 2015 (2017) Explosive atmospheres - Part 7: Equipment protection by increased safety "e" 		
Special conditions of safe use "X":	<ul style="list-style-type: none"> Refer to Annex below 		
Conditions of manufacture:	<ul style="list-style-type: none"> Refer to Annex below 		
	 Terine Orsmond TECHNICAL OFFICER	 Regardt Zeelie TECHNICAL SPECIALIST	
<small>This certificate covers all units sold as long as the QAR/QAN remains valid. According to the relevant requirements of the MHS Act and the OHS Act, production units of explosion protected equipment are required to comply with third party quality assurance (an approved mark scheme or batch testing by an accredited test laboratory).</small>			

Apparatus in hazardous locations is subject to the following provisions as applicable, which shall be adhered to:
SANS 10086 requirements;
Any conditions mentioned in the above report
Any restrictions and conditions enforced by the chief inspector of mines or chief inspector of factories
Any relevant requirements of the MHS Act.

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IA CERTIFICATE: MASC MS/16-1175X
Equipment: BD** Breather / Drainer Plugs and**
BA*E Breather Drainer Adapter**
(Rev 2 – Expiry date 04 July 2030)

ANNEX A

This document is based on and must be read in conjunction with certificate IECEx CML 16.0021X											
Description (According to Base Certificate *)											
"Refer to description in Base Certificate ** (and any applicable schedules/issues/variatio ns)."											
Description	<p>BD**** Breather/Drain Plugs for Hazardous Areas</p> <p>The BD**** Ex d breather/drainer assembly consists of a main body made from either: Brass, Stainless Steel or Mild Steel and an internal plug made from the same material. The Ex d breather/drainer has a sinter between plug and main body, this is held in place with a press fit and further secured with a screwed plug. The sinter bush has material options of stainless steel or bronze, both of an average pore size of no more than 80µm.</p> <p>The Ex d breather drainer further uses sealing gaskets to create a seal against the given enclosure. The breather / drainer has the following basic size options: M20, M25, ½"NPT and ¾"NPT. Larger thread sizes are also allowed, but the inner plug will remain the same size and the protrusion length will be no greater than for the M25 size.</p> <p>The BD***E Ex e breather/drainer assembly consists of a main body, sinter and castellated locking nut. With the main body and locking nut having material options: Brass, Stainless Steel and Mild Steel, and the press fit sinter bush having a material option of stainless steel or bronze, both of an average pore size of no more than 80µm.</p> <p>There is a further optional assembly using an internal tooth lock washer and standard locknut in replacement of the castellated nut. The breather drainer also uses sealing gaskets, between the main body and outer enclosure.</p> <p>The breather / drainer has the following basic size options: M12, M16, M20, M25, ½"NPT and ¾"NPT. Larger thread sizes are also allowed, but the inner features and the protrusion length will be no greater than for the M25 size.</p> <p>BA***E Breather/Drain Adapter for Harzardous Areas</p> <p>The BAE Ex e breather/drainer adapter assembly consists of a main body, a sintered ring, sealing gasket, and either a castellated nut, or a combination of serrated washer and locknut for use when fitted to unthreaded entries. The main body is constructed from either Brass, Stainless Steel or Mild Steel. The sinter has an average pore size of no more than 80µm and material options of Bronze or Stainless Steel.</p> <p>The breather/drainer adapter has the following basic male size options: M20, M25, M32, NPT ½, NPT ¾ or NPT1, along with female thread options as follows: M20, M25, M32, M40, NPT ½, NPT¾, NPT 1, NPT 1¼. Female threads are permitted to be either the same size as the male thread or any size smaller or one size larger.</p>										
Standard compliance	See Base Certificate **										
Special conditions of safe use ("X")	<ol style="list-style-type: none"> The breather drain plugs/adapters shall be used with the supplied sealing washers and the installer shall ensure that the surface of the enclosure against which the sealing gasket seals is in good condition. The breather drain plugs/adapters must be installed at the bottom of the equipment. When used in Ex db applications, the breather drain plugs shall not be used with any form of entry device. For Group I applications, the Breather/Drains shall only be installed in locations where the risk of mechanical impact is low. The following service temperature ranges shall not be exceeded: <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Breather / Drainer</th> <th>Service Temperature</th> </tr> </thead> <tbody> <tr> <td>BD**** (All arrangements)</td> <td>-60°C to +95°C</td> </tr> <tr> <td>BD***E & BA***E (HDPE gasket)</td> <td>-60°C to +95°C</td> </tr> <tr> <td>BD***E & BA***E (Nylon gasket)</td> <td>-60°C to +100°C</td> </tr> <tr> <td>BD***E & BA***E (PTFE gasket)</td> <td>-60°C to +160°C</td> </tr> </tbody> </table> 	Breather / Drainer	Service Temperature	BD**** (All arrangements)	-60°C to +95°C	BD***E & BA***E (HDPE gasket)	-60°C to +95°C	BD***E & BA***E (Nylon gasket)	-60°C to +100°C	BD***E & BA***E (PTFE gasket)	-60°C to +160°C
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Conditions of manufacture	None										
Conditions of Certification	<ul style="list-style-type: none"> This Certificate covers all units sold from the date of this approval and covered by a valid QAR and/or South African Markscheme / Batch testing. The apparatus must be additionally marked with the MASC marking details above. This approval only covers the equipment as certified above and does not include any scheduled additions or variations / amendments / new issues to the certificate(s), made after the above date. The equipment does not need to be re-tested when used on the conditions and with such restrictions as prescribed by the certificate on which this IA Certificate is based and any other conditions in this IA Certificate. 										

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BA*E Breather Drainer Adapter**
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	<ul style="list-style-type: none">• The certification on which this IA Certificate is based must remain valid.• The extent of the requirements in the ARP 0108 (or regulations), SANS 10108 and any other applicable regulations on the certification of the equipment must remain unchanged.• The Ex quality assurance notification/report for the equipment must remain valid.
Conclusion:	<ul style="list-style-type: none">• From the above and the selective examination of the documentation, nothing contrary to the requirements of the applicable standards was found, provided that the equipment / component is used as described in the above document / certificate and according to the MASC conditions below. A MASC IA certificate is issued based on the work done as per the Base Certificate **.• The routine tests for production units according to the Base Certificate ** must be complied with (if applicable).

This document is issued based on Mining And Surface Certification's Standard Contract terms and conditions available on request.

While every endeavour is made to ensure that a test / assessment / inspection is representative and accurately performed, and that a report / certificate is accurate in the quoted results and conclusions drawn from the test / assessment / inspection, MASC or its directors/employees shall in no way be liable for any error made in carrying out the test / assessment or for any erroneous statement, whether in fact or in opinion, contained in a report / certificate issued pursuant to a test / assessment / inspection.

MASC takes no responsibility for any non-conformances, exclusions or any results / assessments / inspections not in compliance with the standards. By marking the equipment in accordance with the documentation / standard, the manufacturer / applicant attests on his own responsibility that the equipment / installation has been designed and constructed in accordance with the applicable requirements of the relevant standards and documentation, that the routine verifications / routine tests have been correctly completed and the equipment / installation complies with the documentation and standard(s).

This document is only for use and application in South Africa. It is issued based on National interpretations and accepted practices.

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