





Mining And Surface Certification (Pty) Ltd

2015/021934/07

THIS CERTIFICATE IS ISSUED AS AN I.A. CERTIFICATE IN TERMS OF THE MINE HEALTH AND SAFETY ACT, ACT NO 29 OF 1996 (AND REGULATIONS), THE OCCUPATIONAL HEALTH AND SAFETY ACT (ACT 85 OF 1993) AND REGULATION 17 OF THE ELECTRICAL MACHINERY REGULATIONS

IA CERTIFICATE	MASC MS/21-9039X	Issue	0
Issue Date	14 December 2021	Expiry Date	14 December 2024
** Based on Certificate No	IECEx ICS 18.0008X	Issue / Variations / Amendment	1
Requested by	Nautitech Mining Systems Pty Ltd Unit 3, 9 Packard Avenue, Castle Hill, NSW 2154, Australia		
Manufacturer	Nautitech Mining Systems Pty Ltd Unit 3, 9 Packard Avenue, Castle Hill, NSW 2154, Australia		
Description	<p>The Quad Exd Enclosure is a rectangular enclosure with approximate dimensions of 290 mm x 210 mm x 112.2 mm. On the two short sides of the enclosure, six M20/M25 x 1.5 (6H) gland entries are provided in total for the fitment of certified glands/blanking elements.</p> <p>The enclosure comprises a base and a cover. The cover is secured with eight M8 x 1.25 x 20mm hexagon socket cap screws of grade 12.9 in 8.6 mm deep countersunk holes. A toughened glass window is located in a recess in the cover and kept in place by a keeper plate. The keeper plate is secured with twelve M8 x 1.25 x 16mm hexagon countersunk screws of grade A2-70. A 2 mm o-ring between the glass window and the cover, as well as between the cover and the base ensures an Ingress Protection rating of IP65.</p> <p>The equipment is internally fitted with electronic control equipment and display mounted on a plate.</p> <p>The equipment is rated 24Vdc with a 24W internal power limitation.</p>		
Equipment	Solenoids / Coils	Type	Type A (CT500131), Type B (CT500130), Type C (CT500166) and Type D (CT500167)
MARKING: Original marking as per certificate ** remains applicable. IA number must be added.	Type: Ex Marking: IA Number: Warnings:	<p>As above</p> <p>Ex db I Mb</p> <p>Ex db IIB T6 Gb</p> <p>MASC MS/21-9039X (To be additionally marked on equipment)</p> <p>See Base Certificate ** (original marking must be applied)</p>	
Quality Assurance report (QAR) / Notification (QAN) Expiry date:	AU/MSC/QAR21.0001/00		
<p>Compliance:</p> <p>The equipment as described above has been allocated the rating <u>Explosion Protected 'as above'</u> utilizing the SANS/IEC Standards:</p> <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" <p>Note: This certificate covers only the listed standards and does not imply compliance to any other standard, related or inferred. It is up to the manufacturer to ensure that the product complies to all relevant standards for the application.</p>			
<p>Special conditions of safe use "X":</p> <ul style="list-style-type: none"> Refer to Annex A below for more details. 			
<p>Conditions of manufacture:</p> <ul style="list-style-type: none"> Refer to Annex A below for more details. 			
 Terine Orsmond PROJECT MANAGER		 Regardt Zeelie TECHNICAL SPECIALIST	
<p>This certificate covers all units sold as long as the QAR/QAN remains valid.</p> <p>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).</p>			

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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 certificate;
- Any relevant requirements of the MHS Act;
- Any restrictions and conditions enforced by the chief inspector of mines, principal inspector (Group I equipment) or chief inspector of factories (Group II equipment).

This certificate may only be reproduced in full
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IA CERTIFICATE: MASC MS/21-9039X
Equipment: QUAD EXD ENCLOSURE Type 5650
(Expiry date: 14 December 2024)

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ANNEX A

This document is based on and must be read in conjunction with certificate IECEx ICS 18.0008X	
Description (According to Base Certificate) **	
"Refer to description in Base Certificate ** (and any applicable schedules/issues/variations)."	
Standard compliance	See Base Certificate **
Special conditions of safe use ("X")	<ul style="list-style-type: none">• Only suitably certified glands or blanking elements may be used in all apertures.• Use only fasteners with grade (or higher) as per equipment description above.• Some flamepaths are more restrictive than the minimum requirements in the standard. Information w.r.t. the flamepaths must be obtained from the manufacturer for consideration of maintenance / repair.
Conditions of manufacture	<ul style="list-style-type: none">• A routine overpressure test shall be conducted at 1220 kPa (min) on all production units, according to the requirements of IEC 60079-1.
Conditions of Certification	<ul style="list-style-type: none">• This IA Certificate covers all units sold from the date of this document to the expiry date of this certificate.• As per ARP 0108 a maximum three yearly review is required on this IA Certificate (expiry is determined as per the QAR/QAN/QMS expiry date).• 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.• 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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This document will not be supported by MASC for certification purposes outside the borders of South Africa.

Mining And Surface Certification (Pty) Ltd Reg No: 2015/021934/07
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