



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

Certificate No.: **IECEX SIM 20.0003X** Page 1 of 5 [Certificate history:](#)
Issue 0 (2020-10-14)

Status: **Current** Issue No: 1

Date of Issue: 2021-08-16

Applicant: **Nautitech Mining Systems Pty Limited**
Unit 3/9 Packard Ave
Castle Hill NSW 2154
Australia

Equipment: **Hawkeye Quad Enclosures**

Optional accessory:

Type of Protection: **Flameproof "d"**

Marking: Ex db I Mb


Approved for issue on behalf of the IECEx
Certification Body:

Geoffrey Barnier

Position:

Principal Engineer - Certification

Signature:
(for printed version)


16 August 2021

Date:

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:

Safety in Mines Testing and Research Station (Simtars)
2 Robert Smith Street, REDBANK QLD 4301
Australia

Simtars



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Manufacturer: **Nautitech Mining Systems Pty Limited**
Unit 3/9 Packard Ave
Castle Hill NSW 2154
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Additional
manufacturing
locations:

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 equipment 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 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

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

Test Report:

[AU/SIM/ExTR20.0002/00](#)

Quality Assessment Report:

[AU/MSC/QAR21.0001/00](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Hawkeye Quad Enclosures is a range of flameproof enclosures each comprise an enclosure housing and a bolted cover. The range includes an operator/junction box and display enclosures.

The display enclosures each contain a computer with a toughened glass window in the cover for viewing of an internal display.

The junction box is used typically to house terminals for termination of field connections. Alternatively, the Operator / Junction Box Enclosures may contain the computer and RTC assembly as used in the Quad 7" Display enclosure.

Refer annex for models in the range.

SPECIFIC CONDITIONS OF USE: YES as shown below:

The window retaining plate fasteners are Property Class A2-70 or 12.9, M8 x 1.25P x 16 mm long hexagon socket countersunk head screws complying with ISO 10642 and shall only be replaced with identical fasteners.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Issue 1:

- Change auditing ExCB



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Additional information:

Refer Annex for Additional Information

Annex:

[IECEX SIM 20.0003X-1 Nautitech Hawkeye Annex.pdf](#)



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Equipment:

Models in the Range

Model Number	Description	External Dimensions (L x W x H) (mm)
ME5650-2-99-496-XX	Operator / Junction Box Enclosure	290 x 210 x 110
ME5700-2-99-497-XX	Quad 7" Display Enclosure	290 x 210 x 116
ME5700-2-99-498-XX	Quad 10" Display Enclosure	336 x 256 x 116

XX = As built configuration

Additional Information:

Separately certified Real Time Clock Type ME5610 2 99-317 covered by Test Report AU/MSC/ExTR17.0001/00 is certified for use in a -20 to +60 °C ambient temperature range and is permitted for use only in enclosures configured in accordance with Table 1 below with the RTC installed and located in accordance with the manufacturer's Product Certification Manual document QA-PM-59

For compliance with clause 17.2.1 of IEC 60079-1: 2014, the means of isolating the equipment shall be upstream of the Hawkeye Quad enclosure and fitted inside another enclosure complying with one of the standard types of protection of EPL Mb listed in IEC 60079-0.

The Hawkeye Quad enclosures were separately tested to the requirements of IEC 60529 and achieved a degree of protection rating of IP65. All separately certified devices used on the enclosures shall have an ingress protection rating of IP65 or better to maintain an IP65 ingress protection rating for the enclosures.

Variation of the Operator / Junction Box and Quad 7" Display Enclosure internal equipment layouts within the parameters specified in the Product Certification Manual are permitted. Variation of the Quad 10" Display Enclosure internal equipment layout from that specified in the Product Certification Manual is not permitted.

The documentation provided with the equipment to the end user shall identify the following information for the specific enclosure identified by serial number:

- the assigned ambient temperature range of the equipment,
- the required temperature ratings of the cables and cable glands used with the equipment
- the specific thread form, size and location of all entries in the enclosure

All Ex entry devices used on the equipment shall form a threaded joint with the enclosure entry with a class of fit of 6g/6H to ISO 965 with a minimum thread engagement length of 9 mm.

The Hawkeye Quad enclosures may be configured for -20 °C to +40 °C or -20 °C to +60 °C ambient temperature range. The maximum allowable power dissipation of equipment installed within the Hawkeye Quad enclosures and the cable and cable gland requirements for the normal and special ambient temperature ranges are listed in the table below.

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Equipment configuration	Ambient Temperature Range (°C)	Maximum Allowable Power Dissipation (W)	Minimum Cable Temperature Rating (°C)	Minimum Cable Gland Temperature Rating (°C)
Heat generating components distributed evenly within the enclosure having no direct contact with enclosure surface with Type ME5610-2-99-317 RTC installed	-20 to +40	22	80	60
Heat generating components distributed evenly within the enclosure having no direct contact with enclosure surface	-20 to +40	36	80	60
Heat generating components distributed evenly within the enclosure having no direct contact with enclosure surface	-20 to +40	56	100	80
Heat generating components distributed evenly within the enclosure having no direct contact with enclosure surface	-20 to +60	36	100	80

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Manufacturer's documents:

Drawings associated with Issue 0:

Drawing No	Subject	Rev.	Date
QA-PM-59 (Pages 1 to 45 of 45)	Hawkeye Quad Product Certification Manual	01	30/09/20

Drawings associated with Issue 1:

Nil

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