



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 SIM 17.0005U** Page 1 of 4 Certificate history:
Status: **Current** Issue No: 1 [Issue 0 \(2018-06-12\)](#)
Date of Issue: 2021-08-16
Applicant: **Nautitech Mining Systems Pty Ltd**
Unit 3/9 Packard Avenue
Castle Hill NSW 2154
Australia
Ex Component: Range of flametraps
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: **Flameproof "d"**
Marking: Ex db I


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.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

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

Simtars



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Date of issue: 2021-08-16

Issue No: 1

Manufacturer: **Nautitech Mining Systems Pty Ltd**
Unit 3/9 Packard Avenue
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 60079-0:2011 Explosive atmospheres - Part 0: General requirements
Edition:6.0

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/ExTR17.0005/00](#)

Quality Assessment Report:

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



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

The Nautitech ME5230-2-04-074 and ME5230-2-04-076 flametraps consist of a metal body with one or three bores through the body with a brass bobbin accommodated within each bore forming a flameproof cylindrical joint. Each bobbin is retained via two circlips located in grooves in the body at each end of the bore.

The flametrap bodies are of stainless steel construction and have an external metric thread for fitting to metric threaded entries of separately certified flameproof enclosures.

The flametrap bodies have female threads at each end of the flametrap bores for the fitment of air line fittings or exhaust elements.

The flametraps are designed to allow pneumatic pressure controls within a flameproof enclosure and are only for use as inline devices as part of a pressurised air system.

Refer annex for the flametrap models.

SCHEDULE OF LIMITATIONS:

Refer annex for the Schedule of Limitations.



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Issue No: 1

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Issue 1:

- Change auditing ExCB

Annex:

[IECEX SIM 17.0005U-1 Nautitech Flametraps Annex.pdf](#)



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Annex

Issue No.: 0
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Equipment:

Part Number and Description

Flametrapp Part Number	Configuration	External Thread
ME5230-2-04-074	One Way	M20 x 1.5
ME5230-2-04-076	Three Way	M40 x 1.5

Schedule of Limitations:

The flametraps are for use only as inline devices as part of a pressurised air system. The maximum operating pressure of the pressurised air system shall not exceed 690 kPa.

When tested in accordance with IEC 60079-1 Clause 10.9.3.2, the maximum surface temperature of the outer face of the flametrapp bobbin was determined to be 240 °C in a 60 °C ambient temperature.

To maintain the IP55 ingress protection rating and prevent dust from forming a layer on the outer face of the flametrapp bobbins, all internally facing threaded flametrapp ports shall at all times be connected via appropriate fittings and air lines to solenoids, valves or switches within the host enclosure. All externally facing threaded flametrapp ports shall at all times be either connected via appropriate fittings and air lines to the pressurised air system external to the host enclosure or fitted with Nautitech breather part number ME5410-1-24-003.

The flametraps shall only be used on enclosures with an internal volume not exceeding 32 litres when empty.

Enclosure entries for fitment of flametraps shall have a thread class of 6H and achieve a minimum thread engagement length of 8 mm between the entry and the flametrapp body.

The maximum inside diameter of the flametrapp bores shall not exceed 8.10 mm and the minimum diameter of the flametrapp bobbin flamepaths shall not be less than 7.70 mm.

The circlips retaining the flametrapp bobbins shall only be used once and must be replaced with new circlips, Nautitech Part Number CM002079, once removed.

Each flametrapp, or package of flametrapps, shall be accompanied by a copy of this certificate, together with the manufacturer's declaration stating compliance with these certificate conditions.

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Manufacturer's documents:

Drawings associated with Issue 0:

Drawing No	Subject	Rev.	Date
ME5230-2-04-074-A	FLAMETRAP FITTING ASSY – ONE WAY	2	24/04/2018
ME5230-2-04-076-A	FITTING – FLAME TRAP – THREE WAY	2	24/04/2018
ME5410-1-24-003	BREATHER CAP – 1/8" BSPT	2	10/05/2018
QA-PM-52-A	QA-PM-52-A IECEX Flametraps Explosion Protection	3	24/04/2018

Drawings associated with Issue 1:

Nil

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