



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx ITA 08.0004X Issue No: 1 Certificate history:
Status: **Current** Page 1 of 4 [Issue No. 1 \(2015-02-10\)](#)
Date of Issue: **2015-02-10** [Issue No. 0 \(2008-07-07\)](#)

Applicant: **Nautitech Mining Systems Pty Ltd**
U3 / 9 Packard Avenue
Castle Hill NSW 2154
Australia

Electrical Apparatus: **Pressure Sensors Type 5001 series**
Optional accessory:

Type of Protection: **Intrinsic Safety**

Marking:
Ex ia I / IIB T4
-20°C ≤ Tamb ≤ +90°C/+120°C (see Annexe for further details)
IECEX ITA 08.0004X

Approved for issue on behalf of the IECEx
Certification Body:

James Birch

Position:

Certification Authority

Signature:
(for printed version)

Date:

2015-02-10

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 the [Official IECEx Website](#).

Certificate issued by:

TUV Rheinland Australia Pty. Ltd
1/30 Kennington Drive
Tomago NSW 2322
Australia





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Manufacturer: **Nautitech Mining Systems Pty Ltd**
U3 / 9 Packard Avenue
Castle Hill NSW 2154
Australia

Additional Manufacturing
location(s):

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 electrical apparatus 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 : 2004 Electrical apparatus for explosive gas atmospheres - Part 0: General requirements

Edition:4.0

IEC 60079-11 : 2006 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"

Edition:5

*This Certificate **does not** indicate compliance with electrical 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/ITA/ExTR08.0016/00](#)

[AU/ITA/ExTR15.0005/00](#)

Quality Assessment Report:

[AU/ITA/QAR08.0004/06](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Pressure Sensor Type 5001 is designed to provide a 4 to 20 mA signal proportional to the pressure applied to the sensing cell.

The equipment comprises a single printed wiring board containing electronic components including a pressure sensor all encapsulated within a brass enclosure with only the diaphragm of the pressure sensor exposed to the process medium. External connections are made using an integral two core cable.

CONDITIONS OF CERTIFICATION: YES as shown below:

See Annexe for details.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

See Annexe for details

Annex:

[Certificate Annex IECEx ITA 08.0004X-1 .pdf](#)

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Annexe



Annexe for Certificate No.:	IECEX ITA 08.0004X	Issue No.:	1
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Description:

Provided in the Equipment description section of the certificate

Conditions of Certification pertaining to Issue 0 of this Certificate:

1. The following parameters are to be taken into account in the installation.

Ambient temperatures up to 90°C.

Group I			Group IIB		
Ui =	16.5	V	Ui =	12	V
Pi =	1.3	W	Pi =	1.3	W
Ci =	4	µF	Ci =	4	µF
Li =	Negligible	mH	Li =	Negligible	mH

2. The electrical connections to the integral cable must be housed within a suitable enclosure offering a degree of protection not less than IP20.

Drawing list pertaining to Issue 0 of this Certificate:

Manufacturer's Documents			
Title:	Drawing No.:	Rev. Level:	Date:
High Pressure Sensor	ExMD500101	A	2007-06-18
Low Pressure Sensor - Female	ExMD500103	A	2007-06-10
Device Markings Sensor Interface Current Based Pressure Sensor	ExMK500101	1.0	2007-12-03
Sensor Interface PCB	ExPB118511-02	A	2007-06-20
Sensor Interface Schematic	ExPS118511-02	A	2007-12-03

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Annexe



Annexe for Certificate No.:	IECEX ITA 08.0004X	Issue No.:	1
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Variations permitted by Issue 1 of this certificate:

The manufacturer has made the following changes;

- Addition of high pressure sensor
- Addition of a differential pressure sensor
- Alternate schematic and PCB design to suit the sensors.
- The optional increase in ambient temperature from 90°C to 120°C when the input power (Pi) is reduced from 1.3 W to 0.6 W
- Change in name from Nautitech Manufacturing Systems Pty Ltd to Nautitech Mining Systems Pty Ltd and change in address

Conditions pertaining to Issue 1 of this certificate:

The following parameters apply for ambient temperatures up to 120°C.

Group I			Group IIB		
Ui =	16.5	V	Ui =	12	V
Pi =	0.6	W	Pi =	0.6	W
Ci =	4	µF	Ci =	4	µF
Li =	Negligible	mH	Li =	Negligible	mH

Drawings Associated with the Issue 1 of this Certificate:

Manufacturer's Documents				
Title:	Drawing No.:	Pages	Rev. Level:	Date:
5001 Series Pressure Sensor Assemblies	ME5001-2-99-198-A	3	5	2015-01-30