



# 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](http://www.iecex.com)

Certificate No.: IECEx MSC 14.0001X

Issue No: 1

Certificate history:

Issue No. 1 (2017-06-21)

Issue No. 0 (2014-02-06)

Status: **Current**

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Date of Issue: **2017-06-21**

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

Equipment: **Speed Sensor**

Optional accessory: *Type 12050*

Type of Protection: **Intrinsic Safety "ia"**

Marking:

Ex ia I Ma

-40°C ≤ Ta ≤ 110°C

*Approved for issue on behalf of the IECEx  
Certification Body:*

Geoff Slater

*Position:*

Manager

*Signature:  
(for printed version)*

*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 the [Official IECEx Website](#).

Certificate issued by:

**MSTC Mine Safety Technology Centre**  
8 Hartley Drive  
Thornton NSW 2322  
PO Box 343  
Australia



**Planning &  
Environment**  
Resources Regulator



# IECEX Certificate of Conformity

Certificate No: IECEx MSC 14.0001X Issue No: 1

Date of Issue: **2017-06-21** Page 2 of 5

Manufacturer: **Nautitech Mining Systems Pty Limited**  
Unit 3/9 Packard Ave  
Castle Hills 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 : 2011** Explosive atmospheres - Part 0: General requirements  
Edition:6.0

**IEC 60079-11 : 2011** Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"  
Edition:6.0

*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/MSC/ExTR14.0001/00](#)

Quality Assessment Report:

[AU/ITA/QAR08.0004/09](#)      [AU/ITA/QAR07.0001/09](#)



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## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

The Speed Sensor Type 12050 is an intrinsically safe device designed for measurement of rotational speed in a Group I environment.

The Speed Sensor type 12050 consists of a partially encapsulated single three pin connector mounted directly to a fully encapsulated single printed circuit board that contains barrier circuits and signal conditioning circuits and connects through a pair of wire to an inductive pickup circuit which are housed within a stainless steel enclosure.

The Speed Sensor type 12050 is intended for use in fixed installations on stationary or mobile plant and connects to other intrinsically safe equipment through its single 3 pin connector.

### SPECIFIC CONDITIONS OF USE: YES as shown below:

Refer to the attached Annex.



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

The Change of Address of the applicant (certificate holder) from Connexa Pty Ltd of 56 Bailey Crescent Southport QLD 4215 Australia to Nautitech Mining Systems Pty Limited of Unit 3/9 Packard Ave Castle Hills NSW 2154 Australia.



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**Additional information:**

Refer to the attached Annex

**Annex:**

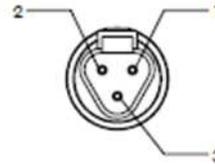
[Annex of IECEx MSC14.0001-01.pdf](#)

**Annex for Certificate No.:** IECEx MSC 14.0001X      **Issue No:** 1

**Conditions of certification pertaining to Issue 1 of this Certificate:**

It is a condition of safe use that the following parameters are taken into account during any installation:

<b>Terminals</b>	<b>Pins 1 &amp; 3 to 2</b>
<b>Maximum Input Voltage <math>U_i</math></b>	9 V
<b>Maximum Internal Capacitance <math>C_i</math></b>	Negligible
<b>Maximum Internal Inductance <math>L_i</math></b>	Negligible



**Drawing list pertaining to Issue 1 of this Certificate:**

Manufacturer's Documents				
Drawing/Document Number:	Page/s:	Title:	Revision Level:	Date: (yyyy-mm-dd)
ZUQPTY4FSNWN-191-136	1 of 4	Part #12050-0.1 SPEED SENSOR COVERSHEET SCHEMATIC	2	2013-01-09
ZUQPTY4FSNWN-191-136	2 of 4	Part #7510-0.1 SPEED SENSOR SCHEMATIC	2	2013-01-09
ZUQPTY4FSNWN-191-136	3 of 4	Part #7510-0.1 SSG LOAD SCHEMATIC	2	2013-01-09
ZUQPTY4FSNWN-191-136	4 of 4	Part #DS_BY-1 IS BARRIER $U_i$ _9V SENSOR SCHEMATIC	2	2013-01-09
ZUQPTY4FSNWN-191-237	1	PART 12050-1 SPEED SENSOR GENERAL CERTIFICATION DETAIL	1	2013-12-04
12050-A	1	SPEED SENSOR General DATA SHEET	2	2017-05-18
ZUQPTY4FSNWN-191-235	1 of 6	Part #7509 SPEED SENSOR TOP LAYER PCB ARTWORK	2	2013-01-09
ZUQPTY4FSNWN-191-235	2 of 6	Part #7509 SPEED SENSOR BOTTOM LAYER PCB ARTWORK	2	2013-01-09
ZUQPTY4FSNWN-191-235	3 of 6	Part #7509 SPEED SENSOR TOP SILKSCREEN OVERLAY PCB ARTWORK	2	2013-01-09
ZUQPTY4FSNWN-191-235	4 of 6	Part #7509 SPEED SENSOR BOTTOM SILKSCREEN OVERLAY LAYER PCB ARTWORK	2	2013-01-09
ZUQPTY4FSNWN-191-235	5 of 6	Part #7509 SPEED SENSOR TOP SOLDER MASK PRINT PCB ARTWORK	2	2013-01-09
ZUQPTY4FSNWN-191-235	6 of 6	Part #7509 SPEED SENSOR BOTTOM SOLDER MASK PRINT PCB ARTWORK	2	2013-01-09

Certificate issued by:

	<b>Planning &amp; Environment</b> Resources Regulator	<h2>Mine Safety Technology Centre</h2>
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