



# 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 14.0013X

Issue No: 1

Certificate history:

Issue No. 1 (2017-06-28)

Issue No. 0 (2014-07-29)

Status: **Current**

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Date of Issue: **2017-06-28**

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

Equipment: **Process Sensor Type 12072**

Optional accessory:

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

Marking:

Ex ia I Ma

-40°C ≤ Ta ≤ +120°C

Approved for issue on behalf of the IECEx  
Certification Body:

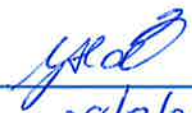
Geoff Slater

Position:

Manager

Signature:  
(for printed version)

Date:

  
28/7/2016

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

Certificate issued by:

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



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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/MS/ExTR14.0007/00](#)

### Quality Assessment Report:

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

[AU/MS/QAR14.0003/00](#)



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## Schedule

### EQUIPMENT:

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

The Process Sensor Type 12072 is an intrinsically safe device designed for measurement of process variables in a group I environment. The process sensor takes on a mechanical shape determined by the process type it measures. Each sensor consists of a fully encapsulated printed circuit board and a process element all housed in a metallic enclosure. Connection to the electronic circuits of each of the process sensors is provided through the three pin connector P1.

The Process Sensor Type 12072 consists of the following process sensor range:

Part 12051 Process Sensor (Temperature)

Part 12052 Process Sensor (Absolute Pressure)

Part 12055 Process Sensor (Angle)

Part 12070 Process Sensor (Differential Pressure)

Part 12086 Process Sensor (Position)

**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 MSC14.0013-1.pdf](#)



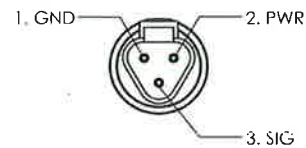
## IECEX Certificate of Conformity Annex

Annex for Certificate No.: IECEx MSC 14.0013X 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:

P1 Terminals	Pins 2 & 3 to 1
Maximum Input Voltage $U_i$	9 V
Maximum Internal Capacitance $C_i$	Negligible
Maximum Internal Inductance $L_i$	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-191-324	1	PART 12070-2 Process Sensor (Differential Pressure) CERTIFICATION DETAIL	1	2014-04-08
12070-A	1	Pressure Sensor (Differential Pressure) DATASHEET	2	2017-05-25
ZUQPTY4FSNWN-191-337	1 of 4	Part #12072-1.0 Process Sensor Coversheet PT SCHEMATIC	1	2014-03-21
ZUQPTY4FSNWN-191-337	2 of 4	Part #12072-1.0 PCS_Main_PT SCHEMATIC	1	2014-03-21
ZUQPTY4FSNWN-191-337	3 of 4	Part #12072-1.0 PCS_Load_PT SCHEMATIC	1	2014-04-07
ZUQPTY4FSNWN-191-337	4 of 4	Part #DS_ER-1.0 IS BARRIER Ui_10V5 Sensor SCHEMATIC	1	2014-03-20
ZUQPTY4FSNWN-191-338	1	PART 12051-1 Process Sensor (Temperature) CERTIFICATION DETAIL	1	2014-05-19
ZUQPTY4FSNWN-191-339	1	PART 12052-1 Process Sensor (Absolute Pressure) CERTIFICATION DETAIL	1	2014-05-19
12051-A	1	Process Sensor (Temperature) DATASHEET	2	2017-05-26
12052-A	1	Process Sensor (Absolute Pressure) DATA SHEET	2	2017-05-22
ZUQPTY4FSNWN-191-344	1 of 4	Part #12072-1.0 Process Sensor Coversheet A SCHEMATIC	1	2014-03-21
ZUQPTY4FSNWN-191-344	2 of 4	Part #12072-1.0 PCS_Main_A SCHEMATIC	1	2014-03-21
ZUQPTY4FSNWN-191-344	3 of 4	Part #12072-1.0 PCS_Load_A SCHEMATIC	1	2014-04-07
ZUQPTY4FSNWN-191-344	4 of 4	Part #DS_ER-1.0 IS BARRIER Ui_10V5 Sensor SCHEMATIC	1	2014-03-20
ZUQPTY4FSNWN-191-346	1	PART 12055-1 Process Sensor (Angle) CERTIFICATION DETAIL	1	2014-05-19

Certificate issued by:



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## IECEX Certificate of Conformity Annex

Annex for Certificate No.: IECEx MSC 14.0013X Issue No:1

Manufacturer's Documents				
Drawing/Document Number:	Page/s:	Title:	Revision Level:	Date: (yyyy-mm-dd)
12055-A	1	Process Sensor (Angle) DATASHEET	2	2017-05-23
ZUQPTY4FSNWN-191-348	1	PART 12072-1 Process Sensor CERTIFICATION DETAIL	1	2014-05-26
ZUQPTY4FSNWN-191-349	1 of 6	Part #7549 12072_Process Sensor (Angle) Top Layer PCB Artwork	1	2014-05-27
ZUQPTY4FSNWN-191-349	2 of 6	Part #7549 12072_Process Sensor (Angle) Bottom Layer PCB Artwork	1	2014-05-27
ZUQPTY4FSNWN-191-349	3 of 6	Part #7549 12072_Process Sensor (Angle) Top Silkscreen Overlay PCB Artwork	1	2014-05-27
ZUQPTY4FSNWN-191-349	4 of 6	Part #7549 12072_Process Sensor (Angle) Bottom Silkscreen Overlay PCB Artwork	1	2014-05-27
ZUQPTY4FSNWN-191-349	5 of 6	Part #7549 12072_Process Sensor (Angle) Top Solder Mask Print PCB Artwork	1	2014-05-27
ZUQPTY4FSNWN-191-349	6 of 6	Part #7549 12072_Process Sensor (Angle) Bottom Solder Mask Print PCB Artwork	1	2014-05-27
ZUQPTY4FSNWN-191-350	1 of 6	Part #7530 12072_Process Sensor (Pressure-Temperature) Top Layer PCB Artwork	1	2014-04-08
ZUQPTY4FSNWN-191-350	2 of 6	Part #7530 12072_Process Sensor (Pressure-Temperature) Bottom Layer PCB Artwork	1	2014-04-08
ZUQPTY4FSNWN-191-350	3 of 6	Part #7530 12072_Process Sensor (Pressure-Temperature) Top Silkscreen Overlay PCB Artwork	1	2014-04-08
ZUQPTY4FSNWN-191-350	4 of 6	Part #7530 12072_Process Sensor (Pressure-Temperature) Bottom Silkscreen Overlay PCB Artwork	1	2014-04-08
ZUQPTY4FSNWN-191-350	5 of 6	Part #7530 12072_Process Sensor (Pressure-Temperature) Top Solder Mask Print PCB Artwork	1	2014-04-08
ZUQPTY4FSNWN-191-350	6 of 6	Part #7530 12072_Process Sensor (Pressure-Temperature) Bottom Solder Mask Print PCB Artwork	1	2014-04-08
ZUQPTY4FSNWN-191-366	1	PART 12086-1 Process Sensor (Position) CERTIFICATION DETAIL	1	2014-06-06
12086-A	1	Process Sensor (Position) DATASHEET	2	2017-05-31

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