

# Certificate of Conformity

## Ex COMPONENT

Certificate No.:	<b>ANZEx 10.4092U</b>	Current Issue:	1	Date of Issue:	2021-08-26
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**Applicant:** Nautitech Mining Systems Pty Ltd  
Unit 3, 9 Packard Avenue,  
Castle Hill NSW 2154,  
Australia

**Component:** Nautitech CDH Gas Sensing Head

**Type of Explosion Protection:** Flameproof 'd'

**Explosion Protection Marking:** Ex db I

*This certificate is granted subject to the requirements as set out in  
Joint Accreditation System of Australia and New Zealand Publications  
ANZEx System Rules 2020 & ANZEx Certified Equipment Scheme Rules 2021*

Signed for and on behalf of issuing body

*Ajay Maira*  
.....

Name & Position

Ajay Maira – Certification Authority

*This certificate is not transferable and remains the property of the issuing body.*

*The status of this certificate can be confirmed through the database located at [www.anzex.com.au](http://www.anzex.com.au)*

Certificate issued by:

Ex Testing & Certification Pty Ltd  
1/30 Kennington Drive, Tomago NSW 2322 Australia

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**Manufacturer :** Nautitech Mining Systems Pty Ltd  
Unit 3, 9 Packard Avenue,  
Castle Hill NSW 2154,  
Australia

**Additional  
Manufacturing  
Location(s):** None

### 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:*

<b>AS 2380.1 - 1989</b>	Electrical equipment for explosive atmospheres- Explosion-protection techniques Part 1: General requirements
<b>AS 2380.2 - 1991</b>	Electrical equipment for explosive atmospheres- Explosion-protection techniques Part 2: Flameproof enclosure 'd'

*This Certificate does not indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.*

(Certificate format based on template QMA-HAE-08-721 dated 2021-05-18)

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### Schedule

#### Component Description:

The **CDH Series Gas Sensing Heads** have a two part stainless steel enclosure, comprising the housing and adaptor, which are connected together by a threaded joint and sealed with resin to make a unit that cannot be opened in service. Primary designed for Gas Sensing, the enclosure can house other devices such as, but not limited to a microphone, speaker, barometric pressure sensor, CO sensor, air quality sensor or buzzer. The various types of devices in the CDH Series differ only in the type of devices used and the associated circuitry. Internally, devices are potted in to the enclosure, the conductors exiting the rear of the enclosure via the potting compound. Gas or air reaches the device by way of a stainless steel sinter which is fused into the enclosure. The enclosure protects the sinter against impact. The maximum input power (Pi) is 2 Watts.

#### Electrical Ratings/Parameters

See conditions of certification below.

#### Schedule of Limitations:

This ANZEx Ex Component Certificate requires further assessment and must be included in an ANZEx Ex Equipment Certificate. An Ex Component cannot be installed as Ex Equipment.

As a component, the following limitations apply

- The sinter head shall only be supplied from an intrinsically supply, or its input connections shall be protected using a suitable means of protection.
- The maximum power to the sensor head shall be limited to less than 2W. In addition, the service temp for the interface into the enclosure shall be limited to 60°C
- It is a requirement that the equipment be utilized with a certified zone 1 enclosure suitable for Group I applications.

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Certificate No.: **ANZEx 10.4092U**      Current Issue: 1      Date of Issue: 2021-08-26

### Register of Issues and Variations

includes the current issue

#### Issue 0 dated 2010-06-02

##### Test & Assessment Reports relevant for this issue:

TR No. & Issuing CBs: 21670 by TestSafe (Job number TO 4487 of ITACS)  
 QAR No. & Issuing CB: AU/ITA/QAR08.0004/02 by ITACS  
 File Reference: ANZ Ex 10.4092U of ITACS

##### Manufacturer's Documents/Drawings associated with this issue:

Document/Drawings Title	Document /Drawings Number	Pages / Sheets	Revision	Date
COMBUSTIBLE SENSOR FIXED HEAD	CDH-CSA	1	4	2010-04-13
CDH FIXED HEAD SINTER HOUSING	0007160	1	9	2010-04-14
CDH FIXED HEAD ADAPTOR ¾ ANPT	0007162	1	5	2006-02-15
CDH FIXED HEAD ADAPTOR ½ ANPT	0007163	1	5	2006-02-15
CDH FIXED HEAD ADAPTOR M16 X 1.5 6g	0007164	1	3	2006-02-15
CDH FIXED HEAD ADAPTOR M20 X 1.5 6g	0007165	1	3	2006-02-15
Label – CDH Series Gas Sensing Heads	L1116-001	1	6	2010-04-13
CERAMIC CEMENT	RM462	1	1	2006-02-15
EPOXY RESIN	RM463	1	1	2006-02-15
EPOXY RESIN	RM497	1	1	2006-02-15

#### Issue 1 dated 26 August 2021

##### Variations Permitted by this Issue

1. The manufacturer's Quality Assessment was changed from Ex Testing and Certification to another IECEX Certification Body, Mine Safety Technology Centre. QAR reference has been changed accordingly.

##### Test & Assessment Reports relevant for this issue:

TR No. & Issuing CBs: N/A  
 QAR No. & Issuing CB: AU/MSC/QAR21.0001/00 by Mine Safety Technology Centre  
 File Reference: 21105

##### Manufacturer's Documents/Drawings associated with this issue:

There are no drawings applicable to this issue of the certificate.