



# 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 BAS 19.0021

Issue No: 0

Certificate history:

[Issue No. 0 \(2019-06-07\)](#)

Status: **Current**

Page 1 of 3

Date of Issue: **2019-06-07**

Applicant: **Cygnus Instruments Limited**  
30 Prince of Wales Road  
Dorchester  
Dorset  
DT1 1PW  
United Kingdom

Equipment: **Cygnus-1 Mk 3 Digital Thickness Gauge**

Optional accessory:

Type of Protection: **Intrinsic Safety**

Marking:

**Ex ia IIC T2 / T3 / T6 Ga**  
**Ex ia I Ma**  
**(See Schedule)**

Approved for issue on behalf of the IECEx  
Certification Body:

R. S. Sinclair

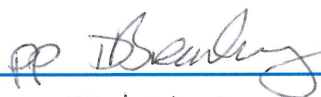
D BREARLEY  
Certification  
Manager

Position:

Technical Manager

Signature:  
(for printed version)

Date:

  
7/6/19

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:

**SGS Baseefa Limited**  
**Rockhead Business Park**  
**Staden Lane**  
**Buxton, Derbyshire, SK17 9RZ**  
**United Kingdom**





# IECEx Certificate of Conformity

Certificate No: IECEx BAS 19.0021 Issue No: 0

Date of Issue: 2019-06-07 Page 2 of 3

Manufacturer: **Cygnus Instruments Limited**  
30 Prince of Wales Road  
Dorchester  
Dorset  
DT1 1PW  
**United Kingdom**

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 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:

<b>IEC 60079-0 : 2017</b> Edition:7.0	Explosive atmospheres - Part 0: Equipment - General requirements
<b>IEC 60079-11 : 2011</b> Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"

*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:

[GB/BAS/ExTR19.0151/00](#)

Quality Assessment Report:

[GB/BAS/QAR19.0008/00](#)



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Certificate No: IECEx BAS 19.0021

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Page 3 of 3

## Schedule

### EQUIPMENT:

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

The Cygnus-1 Mk 3 Ultrasonic Digital Thickness Gauge is a battery powered portable instrument designed to measure and display the thickness of a material.

The gauge consists of three encapsulated printed circuit boards (PCBs) and a digital display housed within a cylindrical plastic enclosure. An external ultrasonic piezoelectric transducer assembly is attached either directly to the gauge or via an interconnecting cable. The ultrasonic piezoelectric transducer assembly must always be fitted with the integral soft polyurethane end cover.

Power is supplied from a battery pack Type 001-1503 or 001-1505 which contains three rechargeable nickel metal hydride (NiMH) AA cells in series, partially encapsulated within a cylindrical plastic enclosure. The battery pack and the gauge screw together and are secured by means of a locking screw.

The battery pack may be separated from the gauge and replaced within the hazardous area but the battery pack must only be recharged within a non-hazardous area.

The equipment coding and temperature classifications are as follows:

Ex ia IIC T2 Ga  $0^{\circ}\text{C} \leq T_a \leq +45^{\circ}\text{C}$

Ex ia IIC T3 Ga  $-20^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$

Ex ia IIC T6 Ga  $-20^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$  \*

Ex ia I Ma  $0^{\circ}\text{C} \leq T_a \leq +45^{\circ}\text{C}$

\* T6 only when fitted with Battery Pack Type 001-1505

### Input / Output Parameters

#### **Battery Pack Type 001-1503 / 001-1505, Recharging Socket**

Um = 253V

#### **Gauge, Transducer Socket**

Only transducers marked as part of this certificate may be used with this equipment.

**SPECIFIC CONDITIONS OF USE: NO**