

1 **UK-TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres**
UKSI 2016:1107 (as amended) – Schedule 3A, Part 1

3 UK-Type Examination Certificate Number: **BAS21UKEX0661**

4 Product: **Cygnus-1 Mk 3 Digital Thickness Gauge**

5 Manufacturer: **Cygnus Instruments Limited**

6 Address: **30 Prince of Wales Road, Dorchester, Dorset, DT1 1PW**

7 This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 SGS Baseefa, Approved Body number 1180, in accordance with Regulation 43 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Schedule 1 of the Regulations.

The examination and test results are recorded in confidential Report No. **21(C)0535**

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018 EN 60079-11:2012

except in respect of those requirements listed at item 18 of the Schedule.

10 If the sign “X” is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

11 This UK-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Regulations apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of the product shall include the following:

See Schedule

SGS Baseefa Customer Reference No. **0256**

Project File No. **21/0535**


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R S SINCLAIR
TECHNICAL MANAGER
On behalf of SGS Baseefa Limited

13 **Schedule**

14 **Certificate Number BAS21UKEX0661**

15 **Description of Product**

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:

- ⊕ II 1 G Ex ia IIC T2 Ga $0^{\circ}\text{C} \leq \text{Ta} \leq +45^{\circ}\text{C}$
- ⊕ II 1 G Ex ia IIC T3 Ga $-20^{\circ}\text{C} \leq \text{Ta} \leq +40^{\circ}\text{C}$
- ⊕ II 1 G Ex ia IIC T6 Ga $-20^{\circ}\text{C} \leq \text{Ta} \leq +40^{\circ}\text{C} *$
- ⊕ I M1 Ex ia I Ma $0^{\circ}\text{C} \leq \text{Ta} \leq +45^{\circ}\text{C}$

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

Input / Output Parameters

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

$U_m = 253\text{V}$

Gauge, Transducer Socket

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

16 **Report Number**

21(C)0535

17 **Specific Conditions of Use**

None

18 **Essential Health and Safety Requirements**

In addition to the Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9, the following are considered relevant to this product, and conformity is demonstrated in the report:

Clause	Subject	Compliance
1.4.1	External effects	User/Installer responsibility
1.4.2	Aggressive substances, etc.	User/Installer responsibility

19 Drawings and Documents

Number	Sheet	Issue	Date	Description
CYG 794	3 of 4	J	27.09.21	Cygnus 1 Gauge Scheme for Intrinsic Safety

See BAS00ATEX1108 Issue 9 for all drawings