

1 **EU - TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
Directive 2014/34/EU**

3 EU - Type Examination Certificate **BAS00ATEX1108X – Issue 9**
Number:

3.1 In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary Certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016.

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 re-issued certificate extends EC Type Examination Certificate No. **BAS00ATEX1108** to apply to product designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

8 SGS Fimko Oy, Notified Body number 0598, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, 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 Annex II to the Directive.

8.1 The original certificate was issued by The Electrical Equipment Certification Service (UK Notified Body 0600). It, and any supplements previously issued by SGS Baseefa Ltd (UK Notified Body 1180) have been transferred to the supervision of SGS Fimko Oy (EU Notified Body 0598). The original certificate number is retained.

The examination and test results are recorded in confidential Report No. **See Certificate History**

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 EU - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Directive 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 Fimko Oy Customer Reference No. **0256**

Project File No. **21/0504**

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Tuomas Hänninen
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13

Schedule

14

Certificate Number BAS00ATEX1108 – Issue 9

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

$U_m = 253\text{V}$

Gauge, Transducer Socket

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

16 Report Number

See Certificate History

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:

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

19 Drawings and Documents

New drawings submitted for this issue of certificate:

Number	Sheet	Issue	Date	Description
CYG 794	3 of 4	H	30.04.21	Cygnus 1 Gauge Scheme for Intrinsic Safety

Current drawings which remain unaffected by this issue:

Number	Sheet	Issue	Date	Description
CYG 035-01	1 to 11	E	16.12.02	Controller PCB Track Layout Drawing
CYG 035-01-BOM	1 – 3	1.7	06.01.10	Cygnus 1 IS Mk3 Controller Board BOM
CYG 035-01-SCH	1 of 8	1.6	03.12.01	Controller Circuit
CYG 035-01-SCH	2 of 8	1.01	03.12.01	Controller Circuit
CYG 035-01-SCH	3 of 8	1.2	03.12.01	Controller Circuit
CYG 035-01-SCH	4 of 8	1.04	03.12.01	Controller Circuit
CYG 035-01-SCH	5 of 8	1.3	03.12.01	Controller Circuit
CYG 035-01-SCH	6 of 8	1.12	03.12.01	Controller Circuit
CYG 035-01-SCH	7 of 8	1.09	03.12.01	Controller Circuit
CYG 035-01-SCH	8 of 8	1.04	03.12.01	Controller Circuit
CYG 035-02	1 to 11	E	16.12.02	Analogue PCB Track Layout Drawing
CYG 035-02-BOM	1 – 3	1.09	24.11.09	Cygnus 1 IS Mk3 Analogue Board BOM
CYG 035-02-SCH	1 of 7	1.07	17.12.01	Analogue Circuit
CYG 035-02-SCH	2 of 7	1.08	03.11.01	Analogue Circuit
CYG 035-02-SCH	3 of 7	1.01	03.11.01	Analogue Circuit
CYG 035-02-SCH	4 of 7	1.05	03.11.01	Analogue Circuit
CYG 035-02-SCH	5 of 7	1.04	03.11.01	Analogue Circuit
CYG 035-02-SCH	6 of 7	1.07	03.11.01	Analogue Circuit
CYG 035-02-SCH	7 of 7	1.08	03.11.01	Analogue Circuit
CYG 035-03	1 to 11	3	16.12.02	Display PCB Track Layout Drawing
CYG 035-03-BOM	1 of 1	4	24.11.09	Cygnus 1 IS Mk3 Display Board BOM
CYG 035-04-BOM	1 of 1	2.0	04.05.10	Component List Battery Pack CSA ATEX
CYG 370-ASY	1 of 1	5	27.07.01	Heavy Duty Remote Probe
CYG 618	1 of 1	2	21.08.01	Heavy Duty Right Angled Probe
CYG 794	1 of 4	M	15.03.19	Cygnus 1 Gauge Scheme for Intrinsic Safety
CYG 794	2 of 4	E	16.12.02	Component Layout
CYG 794	4 of 4	C	04.05.10	Cygnus 1 Gauge Scheme for Intrinsic Safety (001-1505 T6 Battery Pack)
CYG 817	1 of 1	2	21.08.01	Probes with Leads
CYG 818	1 of 1	2	21.08.01	Heavy Duty Probe

20 Certificate History

Certificate No.	Date	Comments
BAS00ATEX1108	30 January 2002	The release of the prime certificate. The associated test and assessment against the requirements of EN 50014:1997+A1&A2, EN 50020:1994 & EN 50284:1999 is documented in Test Report No. 01(C)0942.
BAS00ATEX1108/1	19 December 2002	To permit an alternative temperature classification of T3 when the ambient is limited to +40°C and to permit the omission of the Mk 3 reference in the name without any construction changes. Project File No. 02/0274.
BAS00ATEX1108/2	24 March 2003	To permit an alternative temperature classification of T6 when fitted with a Battery Pack Type 001-1505 and the ambient is limited to +40°C. Project File No. 02/0503.
BAS00ATEX1108/3	12 June 2008	To permit minor documentation changes and the use of an alternative battery. Project File No. 08/0363.
BAS00ATEX1108/4	1 February 2010	To permit minor drawing changes, to confirm the equipment meets the requirements of EN 60079-0:2009 & EN 60079-11:2007 (including the revision of the markings) and to confirm that the equipment meets the requirements for Group 1, Category M1. Project File No. 10/0069.
BAS00ATEX1108/5	19 May 2010	To permit minor documentation changes and to reduce the fuse to 750mA in both the Type 001-1503 & Type 001-1505 battery packs. Report No. 10(C)0403. Project File No. 10/0403.
BAS00ATEX1108 Issue 6	23 August 2016	This issue of the certificate incorporates previously issued primary & supplementary certificates into one certificate and confirms the current design meets the requirements of EN 60079-0:2012+A11:2013 & EN 60079-11:2012 with respect to the differences from EN 60079-0:2009 & EN 60079-11:2007. Project File No. 16/0641.
BAS00ATEX1108 Issue 7	14 November 2016	To permit minor changes to the label. Project File No. 16/0873.
BAS00ATEX1108 Issue 8	6 June 2019	To permit the use of an alternative battery type, minor drawing changes and to confirm that the equipment meets the requirements of EN IEC 60079-0:2018 with respect to the differences from EN 60079-0:2012+A11:2013. The equipment already carries markings in accordance with the latest requirements. Test Report No. GB/BAS/ExTR19.0151/00. Project File No. 19/0126.
BAS00ATEX1108 Issue 9	21 July 2021	To permit minor drawing changes not affecting intrinsic safety. Test Report No. GB/BAS/ExTR21.0122/00. Project File No. 21/0504.
For drawings applicable to each issue, see original of that issue.		