



UNITED KINGDOM CONFORMITY ASSESSMENT

1 **UK TYPE EXAMINATION CERTIFICATE**

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

3 Certificate Number: **CSAE 21UKEX2362** Issue: **0**

4 Product: **I.S. WindObserver Power Supply Unit 1360**

5 Manufacturer: **Gill Instruments Limited**

6 Address: **Saltmarsh Park
67 Gosport Street
Lymington
Hampshire SO41 9EG
U**

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

8 CSA Group Testing UK Limited, Approved Body number 0518, in accordance with Regulation 42 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 the confidential reports listed in Section 14.2.

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 Section 16 of the schedule to this certificate. The above standards may not appear on the UKAS Scope of Accreditation, but have been added through flexible scope of accreditation, which is available on request.

10 If the sign 'X' is placed after the certificate number, it indicates that the product is subject to Specific Conditions of Use identified 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 this product shall be in accordance with Regulation 41 and include the following:

 II (1) GD
[Ex ia Ga] IIC
[Ex ia Da] IIIC
Ta = -30°C to +60°C

Name: J A May
Title: Director of Operations



CSA Group Testing UK Ltd., Unit 6 Hawarden Industrial Park, Hawarden, CH5 3US, UK
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13 DESCRIPTION OF PRODUCT

The I.S. WindObserver Power Supply Unit 1360 is designed to provide an intrinsically safe supply and signal connections to a model 1360 I.S. Anemometer certified as Sira 00ATEX2218. The equipment comprises a printed circuit board that accommodates; an intrinsically safe transformer, opto isolators and voltage clamping, current and power limiting circuitry. A DIN rail accommodates the terminals. The PCB and terminals are housed inside a metal enclosure that affords a degree of ingress protection of at least IP20. The connections to the certified Anemometer are made via connector J2 to DIN rail mounted terminals 21 to 26.

Non-Hazardous area connections

Terminals marked E, L and N and Terminals 1 to 20:

$U_m = 250 \text{ Vrms}$.

Terminals 1 to 20 enable the equipment signal circuits to connect to low power RS422 and RS232 non-hazardous area circuits respectively.

Hazardous area connections

Terminals 21 to 26

$U_o = 11.55 \text{ V}$ $I_o = 162 \text{ mA}$ $P_o = 0.417 \text{ W}$ $C_i = 0$ $L_i = 0$

Cable parameters

The capacitance and either the inductance or the inductance to resistance (L/R) ratio of the load connected to each separate circuit listed above must not exceed the following values.

Group	Capacitance (nF)	Inductance (µH)	L/R Ratio (nH/Ω)
IIC	1.59	800	90
IIB	10.8	3200	360
IIA	43	6400	720

The product description includes the following applicable amendments, only amendments directly applicable to UKCA certification have been included in this list.

The amendments are numbered to include a reference to the previous ATEX variation at which these were introduced.

- 2a An alternative washer was allowed to be used on the IIC I.S. Electronics PCB assembly.
- 2b The removal of the fiber washer used on the Outdoor Galvanic Isolated PCI Final assembly was recognized.
- 2c The rivet bush was removed from the parts list.
- 4b The ambient temperature range was changed from -20°C to $+40^{\circ}\text{C}$ to -30°C to $+40^{\circ}\text{C}$.
- 5a The introduction of an alternative pillar and fixing components was recognized.
- 6b A new label was allowed to be fitted; this label recognizes the additional marking required for the IECEx certification also associated with these products.
- 6c The recognition of minor drawing changes that are administrative or involve changes to the design that do not affect the aspects of the product that are relevant to explosion safety.
- 6d Drawing number 1360-C-009 Rev. 1 was reinstated.
- 7a To recognize that the IS WindObserver Power Supply Unit 1360 may be used with either the Model 1360 IS Anemometer (Sira 00ATEX 2218) or IS II Anemometer Part 1360-00-097 (Sira 15ATEX2014)

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- 8a Upgrade the upper certified ambient temperature from +40°C to +60°C. No changes have been made to the products.
- 9a Circuit diagram 1360-C-009 has been modified to mark resistors R44 and R46 as "MUST NOT FIT".
- 9b Parts list 1360-10-003 has been modified to include R45 (zero ohm link).
- 9c Terminals T19 and T20 have been moved to the safe area side of the terminal rail. Wiring label drawing 1360-30-039 has been modified to reflect this change. The description was amended accordingly
 - 10a Cover Plate drawing 1360-M-037 has been modified to add a note regarding surface of cover plate being free of scratches. No changes have been made to the products.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Reports and Certificate History

Issue	Date	Report number	Comment
0	16 December 2021	R80087598A	The release of the prime certificate.

15 SPECIFIC CONDITIONS OF USE (denoted by X after the certificate number)

None

16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS (REGULATIONS SCHEDULE 1)

In addition to the Essential Health and Safety Requirements covered by the standards listed in Section 9, all other requirements are demonstrated in the relevant reports.

17 PRODUCTION CONTROL

17.1 Holders of this certificate are required to comply with production control requirements defined in Schedule 3A, as applicable, and CSA Group Testing UK Regulations for Certificate Holders

17.2 The Power supply unit transformer, T1, is subject to routine tests at voltages of 2500 V between input and output windings, 1000 V rms between windings and core, and 1500 V between the winding supplying I.S. circuit and the other output winding, in accordance with clause 11.2 of EN 60079-11:2012.



Certificate Annexe

Certificate Number: CSAE 21UKEX2362
Product: I.S. WindObserver Power Supply Unit 1360
Manufacturer: Gill Instruments Limited

Issue 0

Drawing	Sheets	Rev.	Date (Stamp)	Title
1360-10-003	1 to 3	01H	15 Mar 17	I.S. PCI PCB Assembly (Galvanic Isolation)
1360-10-041	1 of 1	02	16 Oct 09	I.S. PCI Box Lid Assembly
1360-M-037	1 of 1	02	22 May 17	Cover Plate
1360-M-038	1 of 1	1	08 Dec 00	DIN Rail Machined
1360-30-039	1 of 1	04	15 Mar 17	Wiring Label
1360-M-009	1 of 1	1C	16 Oct 09	I.S. PCI PCB Manufacturing Details
1360-T-009	1 of 1	1	06 Dec 00	IS Anem PSU PCB Tracking Details
1360-M-001	1 of 1	02	21 Feb 01	I.S. Transformer Assembly
1360-10-011	1 of 1	01	08 Dec 00	DIN Rail Sub Assembly
1360-10-012	1 of 1	03	28 Aug 07	IIC I.S. Electronics PCB Assembly parts list
1360-00-013	1 of 1	06	22 Sep 11	Outdoor Galvanic Isolated PCI Final Assembly parts list
1360-G-028	1 & 2	03	03 Sep 01	I.S. Wind Observer II System Diagram
1360-C-009	1 of 1	1H	15 Mar 17	Intrinsically Safe Power & Communications Interface
1360-30-036	1 of 1	07	15 Sep 21	I.S. PCI Nameplate

