



1 **EU-TYPE EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

3 Certificate Number: **Sira 13ATEX2384** Issue: **4**

4 Equipment: **I.S Low Voltage Power Supply and Communications Interface (LV PCI)
Unit 1954-00-002**

5 Applicant: **Gill Instruments Ltd**

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

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

8 CSA Group Netherlands B.V., notified body number 2813 in accordance with Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

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, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

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

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to Specific Conditions of Use identified in the schedule to this certificate.

11 This EU-Type Examination Certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of the equipment shall include the following:

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

Project Number 80087596

Signed: J A May

Title: Director of Operations

CSA Group Netherlands B.V.
Utrechtseweg 310, Building B42,
6812AR Arnhem, The Netherlands





SCHEDULE

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13 DESCRIPTION OF EQUIPMENT

The LVPCI Model 1954 is a galvanically-isolated power supply and communications interface between non-intrinsically safe equipment sited in non-hazardous and intrinsically safe equipment sited in hazardous environments. The LVPCI comprises an electronic circuit mounted on a printed circuit board which is housed in a plastic enclosure.

The safe area side terminals include J1 which is the DC input, J2 & J3 which are the RS 232 connectors, J4 which is an RS 422 connector.

At Connector J1, J2, J3 and J4

$U_m = 250 \text{ V}$.

The hazardous area side terminals includes the J5(7 & 8) which connects to the Anemometer and J5 (1 to 6) which are the comms connectors. The terminals are marked up on the lid of the enclosure to help the user to make correct connections.

Anemometer supply out terminals J5(7 & 8)

$U_o = 11.55 \text{ V}$ $I_o = 122 \text{ mA}$ $P_o = 352 \text{ mW}$ $C_o = 1.59 \mu\text{F}$ $L_o = 2.38 \text{ mH}$

Comms Connectors J5 (1 to 6)

$U_o = 6.51 \text{ V}$ $I_o = 29 \text{ mA}$ $P_o = 47 \text{ mW}$ $C_o = 22 \mu\text{F}$ $L_o = 42.8 \text{ mH}$

Variation 1 - This variation introduced the following changes:

- i. The IS Low Power Supply and Comms. Interface (LV PCI) unit 1954-00-002 is allowed to be used with either the Model 1360 IS Anemometer (Sira 00ATEX 2218) or IS II Anemometer Part 1360-00-097 (Sira 15ATEX2014).
- ii. A typographical correction was made to the L_o electrical parameters (μH changed to mH) of the IS Low Power Supply and Comms. Interface (LV PCI) unit 1954-00-002

Variation 2 - This variation introduced the following changes:

- i. Upgrade the upper certified ambient temperature from $+40^\circ\text{C}$ to $+60^\circ\text{C}$. No changes have been made to the products.
- ii. EN 60079-0:2012 has been replaced by EN 60079-0:2012/A11:2013.
- iii. EN 60079-26:2007 was removed as all requirements are covered in EN 60079-0:2012 for Ex ia Ga.

Variation 3 - This variation introduced the following changes:

- i. Revise nameplate drawing 1954-30-025 to add UKCA certificate information.
- ii. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, EN 60079-0:2012/A11:2013 was replaced by EN IEC 60079-0:2018.

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14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Reports and Certificate History

Issue	Date	Report number	Comment
0	10 March 2014	R32340A/00	The release of the prime certificate.
1	26 February 2015	R70015851A	The introduction of Variation 1.
2	13 October 2016	R70091747A	This Issue covers the following changes: <ul style="list-style-type: none">EC Type-Examination Certificate in accordance with 94/9/EC updated to EU Type-Examination Certificate in accordance with Directive 2014/34/EU. <i>(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. Variations to such EC Type-Examination Certificates may continue to bear the original certificate number issued prior to 20 April 2016.)</i> The introduction of Variation 2.
3	15 October 2019	1154	Transfer of certificate Sira 13ATEX2384 from Sira Certification Service to CSA Group Netherlands B.V.
4	10 December 2021	R80087597B	The introduction of Variation 3.

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

None

16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

17 CONDITIONS OF MANUFACTURE

17.1 The use of this certificate is subject to the Regulations Applicable to Holders of CSA Certificates.

17.2 Holders of EU-Type Examination Certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.

17.3 In accordance with IEC 60079-11:2011 clause 10.3, the power supply transformer of each manufactured sample of the equipment shall be subjected to an electric strength test using a test voltage of 1500Vac applied between the input and output windings for 60s. Alternatively, a voltage of 20% higher may be applied for 1s. There shall be no evidence of flashover or breakdown and the maximum current flowing shall not exceed 5mA.

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Certificate Annexe



Certificate Number: Sira 13ATEX2384

Equipment: I.S Low Voltage Power Supply and Communications Interface (LV PCI) Unit 1954-00-002

Applicant: Gill Instruments Ltd

Issue 0

Drawing no.	Sheets	Rev.	Date (Sira stamp)	Title
1954-C-001	1 of 1	5	24 Feb 14	Intrinsically safe low voltage power and communications interface (LV PCI) Circuit diagram
1954-00-002	1 & 2	1	24 Feb 14	LVPCI Final General Assembly
1954-00-002 BOM	1 & 2	2	05 Mar 14	LVPCI BOM
1954-30-025	1 of 1	1	24 Feb 14	LVPCI Label drawing
1954-10-001	1 to 5	5	24 Feb 14	LVPCI PCB Bill of Material
1954-001 PCBSPC	1 of 1	5	24 Feb 14	PCB Specification
1954-30-023	1 of 1	2	24 Feb 14	LVPCI Internal Lid Label
1954-30-024	1 of 1	1	24 Feb 14	IS Transformer Assembly
1954-I-001	1 & 2	5	24 Feb 14	LV PCI PCB Top and Bottom Ident

Issue 1

Drawing no.	Sheets	Rev.	Date (Sira stamp)	Title
1954-30-025	1 of 1	02	04 Feb 15	External lid engraving

Issue 2

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
1954-10-001	1 to 5	5B	03 Oct 16	LVPCI PCB Parts List
1954-30-025	1 of 1	03	03 Oct 16	External Lid Engraving

Issue 3. No new drawings were introduced

Issue 4

Drawing	Sheets	Rev.	Date	Title
1954-30-025	1 of 1	4	15 Sep 21	External Lid Engraving

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