



1 **EU-TYPE EXAMINATION CERTIFICATE**

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

3 Certificate Number: **Sira 18ATEX2066U** Issue: **1**

4 Component: **DI-2.5 Board**

5 Applicant: **Detectronic Ltd.**

6 Address: Regent St  
Whitewalls Ind. Est.  
Colne BB8 8LJ  
Lancashire  
UK

7 This component 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 component has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of a component 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:

IEC 60079-0:2017 EN 60079-11:2012

10 The sign 'U' is placed after the certificate number to indicate that the product assessed is a component and may be subject to further assessment when incorporated into equipment. Any limitations of use are listed in the schedule to this certificate.

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

12 The marking of the component shall include the following:

 II 1G  
Ex ia IIB Ga  
Ta = -40°C to +60°C

Project Number 0330

Signed: 

Title: Director of Operations

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**CSA Group Netherlands B.V.**  
Utrechtseweg 310,  
6812 AR, Arnhem,  
Netherlands



## SCHEDULE

### EU-TYPE EXAMINATION CERTIFICATE

**Sira 18ATEX2066U**  
**Issue 1**

#### 13 DESCRIPTION OF COMPONENT

The DI-2.5 comprises a single printed circuit board and is designed to measure pressure and velocity. It is intended to be incorporated into an equipment-certified data logger, display, or similar device. The entity parameters are as follows:

|                            | Ui<br>(V) | Ii<br>(A) | Pi<br>(W) | Ci<br>( $\mu$ F) | Li<br>(mH) | Uo<br>(V) | Io<br>(mA) | Po<br>(mW) | Co<br>( $\mu$ F) | Lo<br>(mH) |
|----------------------------|-----------|-----------|-----------|------------------|------------|-----------|------------|------------|------------------|------------|
| J8/J9 (supply)             | 12.6      | 2.708     | 6.142     | 0                | 0.019      | 0         |            |            |                  |            |
| J1 (Velocity TX)           | 0         |           |           |                  |            | 8.61      | 270        | 799        | 54               | 1.9        |
| J2 (Velocity, RX)          | 0         |           |           |                  |            | 8.61      | 270        | 799        | 54               | 1.0        |
| J3/J13 (depth/pressure)    | 0         |           |           |                  |            | 8.61      | 270        | 799        | 54               | 0.9        |
| J5/J12 (logger)            | 5.88      | -         | -         | 0                | 0          | 4.16      | 17         | 18         | 54               | 492        |
| J7(PC Port) (Pins 1 & 2)   | 0         | -         | -         | 0                | 0.9        | 8.61      | 36         | 76         | 54               | 108        |
| J7 (Volt Free Port)(Pin 4) | 5.5       |           |           |                  |            | 8.61      | 1          | 2          | 54               | 142221     |
| J10 (SDI-12)               | 5.5       | -         | -         | 0                | 0          | 6.93      | 15         | 26         | 54               | 632        |
| J11 (RS485)                | 4.2       | -         | -         | 0                | 0          | 6.93      | 30         | 52         | 54               | 158        |

#### 14 DESCRIPTIVE DOCUMENTS

##### 14.1 Drawings

Refer to Certificate Annexe.

##### 14.2 Associated Sira Reports and Certificate History

| Issue | Date              | Report no. | Comment   |
|-------|-------------------|------------|---|
| 0     | 20 September 2018 | R70179937A | The release of the prime certificate.   |
| 1     | 15 October 2019   | 0330       | Transfer of certificate <b>Sira 18ATEX2066U</b> from Sira Certification Service to CSA Group Netherlands B.V. |

#### 15 SCHEDULE OF LIMITATIONS

- 15.1 The DI-2.5 board shall be housed inside an external enclosure offering a minimum degree of protection of IP 20, or as required by the environment.
- 15.2 The DI-2.5 board when installed inside an external enclosure shall be subjected to an electric strength using a test voltage of 500 V r.m.s applied between the circuit and the enclosure for 60 s. There shall be no evidence of flashover or breakdown and the maximum current flowing shall not exceed 5 mA.
- 15.3 The DI-2.5 board is assessed for use in equipment with a T4 temperature class at an ambient temperature up to 60°C.
- 15.4 Port J8/J9 of the DI-2.5 shall be connected to a resistive supply with a source resistance of 4.431  $\Omega$  minimum.
- 15.5 Any wires or conductors associated with the supply at Port J8/J9 shall be infallibly separated from all the output ports.



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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.

## Certificate Annexe



**Certificate Number:** Sira 18ATEX2066U

**Component:** DI-2.5 Board

**Applicant:** Detectronic Ltd.

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### Issue 0

| Drawing no.         | Sheets | Rev. | Date (Sira stamp) | Description             |
|---------------------|--------|------|-------------------|-------------------------|
| P121-PN001-3        | 1 to 5 | C    | 15 May 18         | Schematic               |
| P121-PN001-3-BOM    | 1 to 3 | C    | 15 May 18         | Critical component list |
| P121-PN001-3-DRW002 | 1 of 1 | D    | 28 Aug 18         | Sector diagram          |
| P121-PN001-3-DRW004 | 1 of 1 | 1    | 03 Apr 18         | Encapsulation detail    |
| P121-PN001-3-DRW005 | 1 of 1 | B    | 30 May 18         | Track layout            |

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