



1 **EU-TYPE EXAMINATION CERTIFICATE**

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

3 Certificate Number: **Sira 18ATEX1244X** Issue: **1**

4 Equipment: **4003 Non-Intrusive PIG Detector**

5 Applicant: **Online Electronics Ltd.**

6 Address: Online House, Blackburn Business Park,  
Woodburn Road, Aberdeen,  
Aberdeenshire AB21 0PS, UK

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 60079-0:2012/A11:2013

EN 60079-1:2014

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:

**Where the IS sensor is internal**



II 2 (1) G  
Ex db [ia Ga] IIC T\* Gb  
Ta\* = -50°C to +100°C

**Where the IS sensor is external**



II 1/2 (1) G  
Ex db ia [ia Ga] IIC T\* Gb/Ga  
Ta\* = -50°C to +100°C

\* Refer to Specific Conditions of Use for applicable temperate class and ambient temperature range.

Project Number 4075

Signed:

Title: Director of Operations

This certificate and its schedules may only be reproduced in its entirety and without change

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



## SCHEDULE

### EU-TYPE EXAMINATION CERTIFICATE

Sira 18ATEX1244X  
Issue 1

#### 13 DESCRIPTION OF EQUIPMENT

The Online 4003 PIG Signaller is a non-intrusive magnetic pig signaller which detects, signals, and logs the passage of magnetic pigs along a pipeline. A separate intrinsically safe sensor may also be used which is external to the housing. Events are signalled as they occur via an OLED dot matrix display and indication LEDs positioned around the perimeter of the display. Logged events can be viewed locally on the dot matrix display and/or transmitted remotely over several optional interfaces.

The 4003 can be powered from internal batteries or from an external +30 VDC supply. Batteries can be fitted to provide backup power should the external supply fail. The 4003 uses either 4 off individual 'D' sized cells which can either all be Alkaline (DURACELL LR20) primary cells or NiMH (Annsman Max E) secondary cells. The 4003 also caters for 2 off Lithium (SAFT LS33600) primary cells, this option being configured at manufacture.

The 4003 can be supplied with an epoxy coated Aluminium Alloy 6082-T6 or uncoated 316L Stainless Steel housing and comes with 3 off Metric, NPT or NPSM entries with suitably certified blanking elements installed. Certified adaptors are used for other thread types.

The 4003 remote sensor is available in its own metal housing and is connected to the main unit via solid or flexible conduit. An optional junction box provides 2 entries for external electrical and signal connections.

#### Ratings

##### Externally Powered Variant:

##### Standard

Voltage: 30 VDC  
Current: 125 mA  
Power: 1 W

##### Remote Communications

Voltage: 30 VDC  
Current: 125 mA  
Power: 5 W

##### Internal Anti-condensation Heater

Voltage: 30 VDC  
Current: 125 mA  
Power: 10 W

##### Internally Powered Variant:

##### Duracell Industrial LR20 (Primary)

Voltage: 6.0 VDC  
Current: 2000 mA  
Capacity: 18 Ah  
Power: 1W

##### Saft LS33600 (Primary)

Voltage: 14.4 VDC  
Current: 250 mA  
Capacity: 17 Ah  
Power: 1 W

##### ANSMANN MaxE D (Secondary)

Voltage: 5.2 VDC  
Current: 8000 mA  
Capacity: 8.5 Ah  
Power: 1 W



## SCHEDULE

### EU-TYPE EXAMINATION CERTIFICATE

Sira 18ATEX1244X  
Issue 1

#### 14 DESCRIPTIVE DOCUMENTS

##### 14.1 Drawings

Refer to Certificate Annexe.

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

Issue	Date	Report no.	Comment
0	24 October 2018	R70166718A	The release of the prime certificate.
1	31st October 2019	4075	<ul style="list-style-type: none"> <li>Transfer of certificate <b>Sira 18ATEX1244X</b> from Sira Certification Service to CSA Group Netherlands B.V..</li> </ul>

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

- 15.1 The Temperature class of the equipment is listed as T6 to T4 and ambient temperature range of the equipment is listed between -50°C and +100°C. This is dependent upon a configurable matrix in relation to the product configuration. Refer to the table below.

##### Without IS interface to relay

Power Supply	Temperature Class		
	T6	T5	T4
External supply (1 W)	-50°C to +73°C (+78°C*)	-50°C to +88°C (+93°C*)	-50°C to +100°C
External supply (5 W)	-50°C to +70°C	-50°C to +85°C	-50°C to +98°C
External supply (10 W)	-50°C to +60°C	-50°C to +75°C	-50°C to +85°C
Alkaline battery (DURACELL, LR20)	-20°C to +50°C	-20°C to +50°C	-20°C to +50°C
Lithium battery (SAFT, LS33600)	-40°C to +73°C	-40°C to +80°C	-40°C to +80°C
NiMH battery (ANSMANN, 8500)	-20°C to +60°C	-20°C to +60°C	-20°C to +60°C

##### With IS interface to relay

Power Supply	Temperature Class		
	T6	T5	T4
External supply (1 W)	-40°C to +73°C (+78°C*)	-40°C to +82°C	-40°C to +82°C
External supply (5 W)	-40°C to +70°C	-40°C to +72°C	-40°C to +72°C
External supply (10 W)	-40°C to +59°C	-40°C to +59°C	-40°C to +59°C
Alkaline battery* (DURACELL, LR20)	-20°C to +50°C	-20°C to +50°C	-20°C to +50°C
Lithium battery* (SAFT, LS33600)	-40°C to +73°C (+78°C*)	-40°C to +80°C	-40°C to +80°C
NiMH battery* (ANSMANN, 8500)	-20°C to +60°C	-20°C to +60°C	-20°C to +60°C

Note 1 - When batteries are fitted as a back-up supply in an externally powered unit, the ambient range of the battery takes precedence over the ambient range of the external supply.

Note 2 - \* With no external or remote sensor attached to the flameproof enclosure.

- 15.2 The enclosures paint coated surface may be non-conducting and may generate an ignition-capable level of electrostatic charge under certain extreme conditions. The user shall ensure that the equipment shall not be used in a location where the external conditions are conducive to the build-up of electrostatic charge on non-conductive surfaces. Additionally, the equipment shall only be cleaned with a damp cloth.

- 15.3 Internal and external threaded holes and securing screws are provided for earthing and equipotential bonding. Protective earthing conductors employed shall be greater or equal to the size of the phase

This certificate and its schedules may only be reproduced in its entirety and without change

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



## SCHEDULE

### EU-TYPE EXAMINATION CERTIFICATE

Sira 18ATEX1244X  
Issue 1

conductors, equipotential conductors shall have a minimum cross sectional area of 4 mm<sup>2</sup>. The end user shall ensure conductors cannot be readily loosened or twisted. Light metals shall not be used unless special precautions are taken to guard against corrosion.

- 15.4 If the batteries used in this equipment need to be changed, then they shall only be replaced with the same type; i.e. either Alkaline (DURACELL LR20) primary cells or Lithium (SAFT LS33600) primary cells NiMH (Annsman Max E) secondary cells.
- 15.5 Batteries shall only be changed and/or charged outside of the hazardous area.
- 15.6 External power and signals shall only be supplied according to manufacturer's instructions using suitable cable and suitably certified flameproof 'Ex db' cable glands.
- 15.7 The temperature at the cable entry point may exceed +70°C; only cables and fittings suitable for use at this temperature shall be used.
- 15.8 The equipment contains a shunt zener diode interface, which requires connection to a suitable earth in accordance with EN 60079-14.
- 15.9 All wirings for external connection shall be made using suitable crimp ferrules to prevent accidental disconnection as per EN 60079-11:2011 Cl. 6.2.2.
- 15.10 The IS terminal blocks shall be covered by the plastic covers after field-wiring.
- 15.11 The sensor cable length shall not exceed 20 meters.
- 15.12 All wires shall have insulation with minimum radial thickness of 1.0 mm and conductor size of at least 0.05 mm (diameter).
- 15.13 When the relay is used in the intrinsically safe interface, connection of any relay contacts to non-intrinsically safe circuits is not permitted. Once the contacts are connected to any non-IS circuits, they are no longer be acceptable for IS interface.
- 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 18ATEX1244X  
**Equipment:** 4003 Non-Intrusive PIG Detector  
**Applicant:** Online Electronics Ltd.

---

## Issue 0

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
4003_X002	1 of 1	E01	15 Oct 18	Battery Schematic
4003_X003	1 of 1	K01	15 Oct 18	Interface PCB Schematic
4003_X005	1 to 18	B04	24 Oct 18	ATEX & IECEx File
4003_X006	1 to 4	A05	15 Oct 18	Safety Instructions
4003_X007	1 of 1	A00	15 Oct 18	Installation Drawing
4003_X012	1 of 1	B00	15 Oct 18	Enclosure Detail
4003_X013	1 of 1	A00	15 Oct 18	Battery Version
4003_X014	1 of 1	A00	15 Oct 18	External Power Version
4003_X015	1 of 1	A07	24 Oct 18	Marking Label
4003_X017	1 of 1	A01	15 Oct 18	Partition Cover
4003_X018	1 of 1	A00	15 Oct 18	Remote Sensor Assembly
4003_X102	1 of 1	D00	15 Oct 18	Display PCB Layout
4003_X103	1 of 1	K00	15 Oct 18	Interface PCB Layout

This certificate and its schedules may only be reproduced in its entirety and without change

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