

1 EU - TYPE EXAMINATION CERTIFICATE

2 Product or Protective System Intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU – Annex III

3 EU - Type Examination Certificate No.: **TRAC13ATEX0008X (incorporating variations V1 to V3)**

4 Product: **ID5001 Ultrasonic Pipeline signal sensing equipment,
ID5001A, ID5001P, Hi-T ULTRAlert v02 Active, Hi-T ULTRAlert v02 Passive**

5 Manufacturer: **Online Electronics Limited**

6 Address: **Online House, Blackburn Business Park, Woodburn Road, Blackburn,
Aberdeen, AB21 0PS, United Kingdom**

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

8 Element Materials Technology, Notified Body number 2812, 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. The examination and test results are recorded in the confidential reports **TRA-008946-33-02A, TRA-025886-00A & TRA-042472-33-00A.**

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0:2012

EN 60079-1:2007

EN 60079-11:2012

EN 60079-26:2007

Except in respect of those requirements listed at section 18 of the schedule.

10 If the sign "X" is placed after the certificate number, it indicates that the product is subject to specific conditions of use specified in the schedule to this certificate.

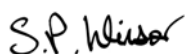
11 This EU - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of this product shall include the following:

 II 1/2 G Ex d ia [ia Ga] IIC T4...T6 Gb **Model ID5001P passive sensor**

 II 1/2 G Ex d ia [ia Ga] IIC T4 Gb **Model ID5001A active sensor**

This certificate and its schedules may only be reproduced in its entirety and without change. This certificate is issued in accordance with the Element Materials Technology Ex Certification Scheme.



S P Winsor, Certification Manager

Issue date: 2019-11-01

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15 Description of Product

The ID5001A Active Ultrasonic Pig Signaller uses 'Active' ultrasonic techniques to detect, log and display the passage of PIGs through oil and gas pipelines. Ultrasonic pulses are generated within the 'Active' transducer and transmitted into a pipeline. Reflections from these pulses are received by the 'Active' transducer and passed to the main electronics for amplification and processing. When a PIG passes the point of installation it can be detected by monitoring these reflections. The Hi-T ULTRAlert v02 Active Ultrasonic Pig Signaller is identical to the ID5001A, but has its own markings.

The ID5001P Passive Ultrasonic Pig Signaller uses 'Passive' ultrasonic techniques to detect, log and display the passage of PIGs through oil and gas pipelines. The 'Passive' transducer receives sounds generated within pipelines and passes them to the main electronics for amplification and processing. When a PIG passes the point of installation it can be detected by monitoring the sounds generated by the PIG itself as it travels through the pipeline. The Hi-T ULTRAlert v02 Passive Ultrasonic Pig Signaller is identical to the ID5001P, but has its own markings.

The ID5001A and ID5001P comprise of a component certified flameproof enclosure (AH01) connected to an intrinsically safe transducer via a cable and suitably certified cable entries. The AH01 flameproof housing contains all display and sensing electronics, optional battery pack and optional external power and interface connections via suitably certified cable entries / glands. The AH01 flameproof enclosure is separately certified as a component under ATEX / IECEx certificate number TRAC12ATEX0035U / IECEx TRC 12.0018U respectively.

The ambient temperature range of the flameproof enclosure varies with configuration and power dissipation. The tables below show the full range permitted:

ID5001P:

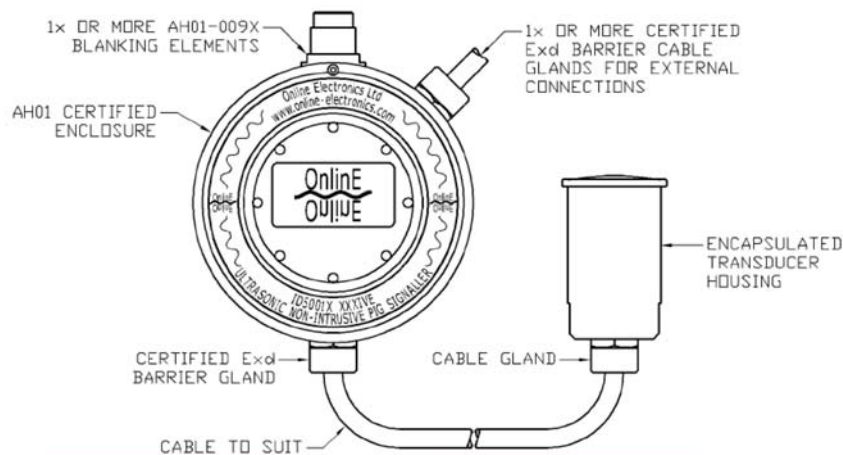
Pd	External supply (no cells fitted)			DURACELL INDUSTRIAL ID1300 fitted			SAFT LS33600 fitted			ANSMANN MaxE D fitted		
	T4	T5	T6	T4	T5	T6	T4	T5	T6	T4	T5	T6
<1W	-40 to 85°C		-40 to 75°C	-20 to 54°C			-40 to 85°C		-40 to 75°C	-20 to 65°C		
<5W			-40 to 70°C						-40 to 70°C			
<10W	-40 to 75°C	-40 to 70°C	-40 to 55°C				-40 to 75°C	-40 to 70°C	-40 to 55°C			

ID5001A:

Pd	External supply (no cells fitted)	DURACELL INDUSTRIAL ID1300 fitted	SAFT LS33600 fitted	ANSMANN MaxE D fitted
	T4	T4	T4	T4
<1W	-40 to 85°C	-20 to 54°C	-40 to 85°C	-20 to 65°C
<5W			-40 to 75°C	
<10W			-40 to 75°C	

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16 Test report No. (associated with this certificate issue): **TRA-042472-33-00A.**

17 Specific Conditions of Use

1. Do not open when an explosive gas atmosphere may be present.
2. Potential electrostatic charging hazard. The equipment should not be mounted in areas where it could be subjected to highly efficient charging mechanisms, such as fast moving dust or particle filled air, and shall only be cleaned with an anti-static or damp cloth.
3. Sensor, cable and electronics shall only be used as a complete assembly.
4. Internal and external threaded holes are provided for earthing and equipotential bonding. Protective earthing conductors employed shall be greater or equal to the size of the phase conductors, equipotential conductors shall have a minimum cross sectional area of 4mm². 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.
5. Any external power supply used with this equipment must have a rated output of 30 Vdc or less and comply with IEC 60950 series, IEC 62368 series, IEC 61010-1 or a technically equivalent standard.
6. External power and signals shall only be supplied according to manufacturers' instruction using suitable cable and suitable Ex certified cable glands.
7. External power and signals shall only be connected using suitable crimp ferrules to prevent accidental disconnection.
8. Unused cable entries shall be sealed using suitable Ex certified blanking elements.
9. The temperature at the cable entry point may exceed +70°C. Cables suitable for use at this temperature must be used.
10. Use only DURACELL INDUSTRIAL ID1300 or SAFT LS33600 or ANSMANN MAXE D cells.
11. As part of the routine maintenance schedule, the condition of the window cement shall be periodically inspected for any degradation or discolouration of the cement that may compromise the explosion protection.
12. Sensor face must be positioned close to the pipeline surface and adequately protected from impacts.
13. Temperature class is reliant on the operating ambient temperature, internal power dissipation (Pd), and whether internal cells are fitted. Refer to tables in this certificate.



Attention is drawn to the operating and installation instructions which may contain useful information in relation to conditions of use.

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18 Essential Health and Safety Requirements (Directive Annex II)

The standards listed in section 9 of this certificate are no longer listed within the Official Journal and are therefore not harmonised. A gap analysis has been conducted by Element Materials Technology against the relevant, latest versions of the harmonised EN 60079 series standards and has confirmed continued compliance with the Essential Health and Safety Requirements. This analysis is detailed in report: TRA-042472-33-00A.

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

19 Drawings and Documents

The list of controlled technical documentation is given in Appendix A to this schedule.

20 Routine Tests

None.

21 Specific Conditions for Manufacture

None.

22 Photographs

Photograph 1 – ID5001 enclosure fitted with non-penetrating push button

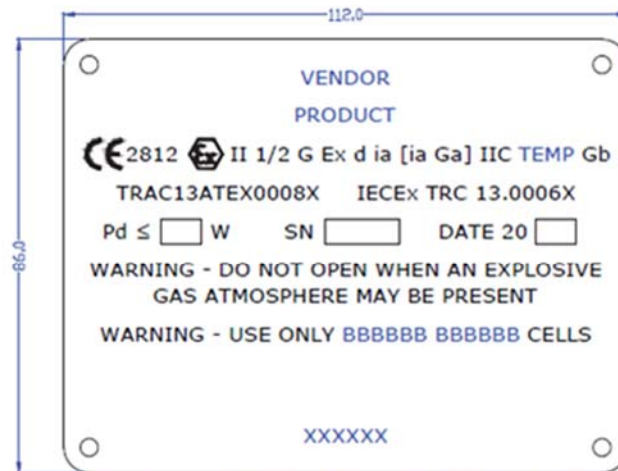
Photograph 2 – ID5001 Sensor



23 Details of Markings

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NOTES

1. FIELD VENDOR WILL BE REPLACED WITH LATEST NAME AND ADDRESS OF THE MANUFACTURER AS PER CERTIFICATION. E.g. Online Electronics Ltd, AB21 OPS, UK OR GD Engineering as SPX Brand, S80 2PY, UK (Manufactured for GD Engineering by Online Electronics Ltd, AB21 OPS, UK) .
2. FIELD PRODUCT WILL BE REPLACED WITH THE RELEVANT PRODUCT NAME, ID5001A Active Ultrasonic Pig Signaller OR ID5001P Passive Ultrasonic Pig Signaller OR Hi-T ULTRAlert v02 Passive Ultrasonic Pig Signaller.
3. FIELD TEMP WILL BE REPLACED WITH THE RELEVANT TEMPERATURE CLASS MARKING, T4 FOR ACTIVE VERSION OR T4..T6 FOR PASSIVE VERSION.
4. FIELD BBBBBB BBBBBB WILL BE REPLACED WITH THE RELEVANT CELL TYPE, DURACELL INDUSTRIAL ID1300 OR SAFT LS33600 OR ANSMANN MAXE D as per EN60079-0:2012 section 29.14. THIS ENTIRE STATEMENT MAY BE EXCLUDED IF BATTERIES ARE NOT AN AVAILABLE OPTION.
5. MAXIMUM POWER DISSIPATION, SERIAL NUMBER, AND DATE OF MANUFACTURE WILL BE STAMPED ON DURING MANUFACTURE.
6. FIELD XXXX THE LABEL MAY BE ENLARGED AND/OR CONTAIN ADDITIONAL NON-ATEX DETAILS.

24 Details of Variations to this Certificate

This certificate is a consolidated certificate and reflects the latest status of the certification, including the following variations:

- Variation V1 - Change of the approved batteries and relevant documents.
- Variation V2 - Change of address, barrier circuits and Active sensor Temperature class now T4.
- Variation V2 issue 2 - Replace references to DURACELL PROCELL MN1300 with DURACELL INDUSTRIAL ID1300.
- Variation V3 - This certificate was originally issued by Notified Body number 0891 under Directive 2014/34/EU. The technical file has been transferred to Element Notified Body number 2812 without further assessment or evaluation.

25 Notes to CE marking

In respect of CE Marking, Element Materials Technology accepts no responsibility for the compliance of the product against all applicable Directives in all applications.

26 Notes to this certificate

Element Materials Technology certification reference: NR-ONLQ-0006

Throughout this certificate, the date format yyyy-mm-dd (year-month-day) is used.

Notified Body number 2812 is the designation for Element Materials Technology Rotterdam BV.

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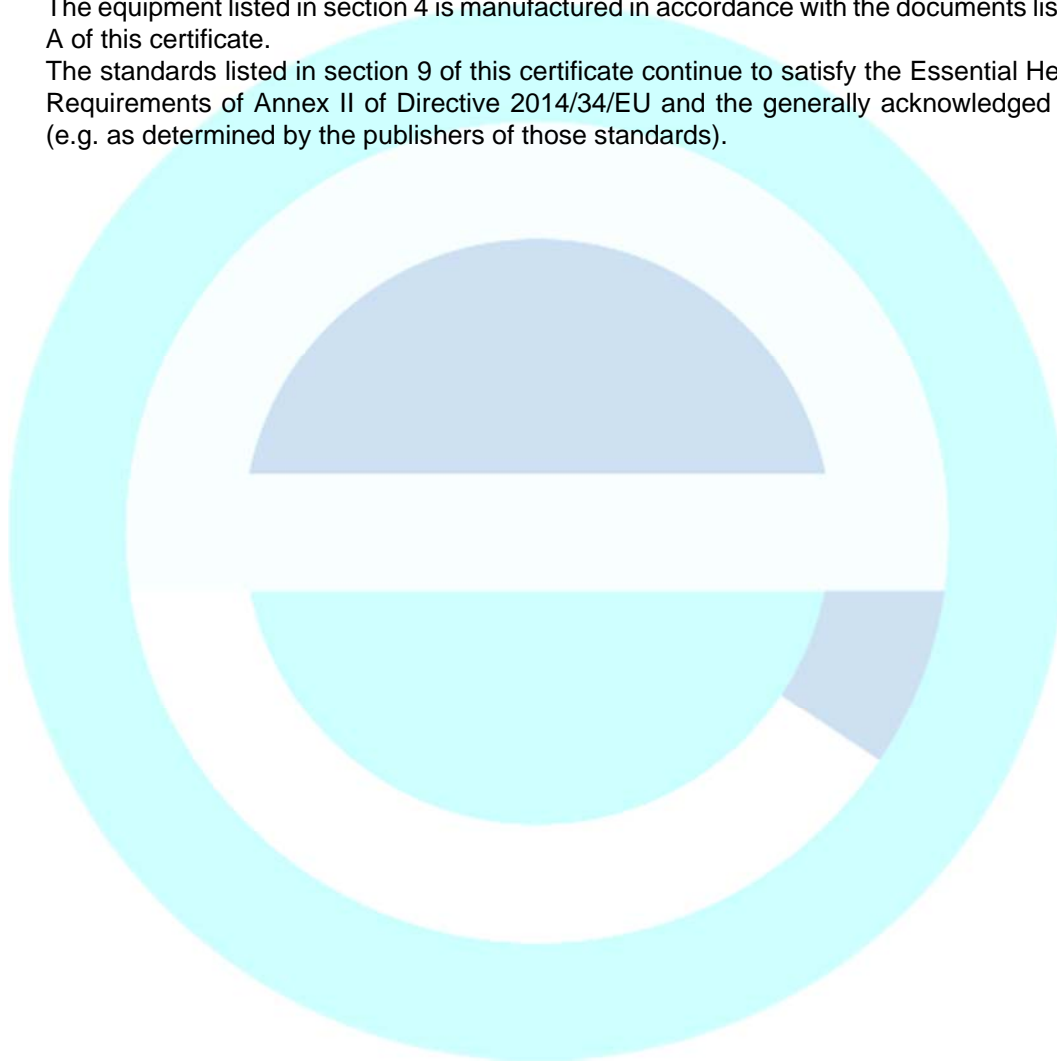
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In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Variation 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.

27 Conditions for the validity of this certificate

This certificate remains valid for so long as:

- (i) The equipment listed in section 4 is manufactured in accordance with the documents listed in Appendix A of this certificate.
- (ii) The standards listed in section 9 of this certificate continue to satisfy the Essential Health and Safety Requirements of Annex II of Directive 2014/34/EU and the generally acknowledged state of the art (e.g. as determined by the publishers of those standards).



SCHEDULE TO EU - TYPE EXAMINATION CERTIFICATE**CERTIFICATE NUMBER TRAC13ATEX0008X (incorporating variation V1 to V3)****APPENDIX A - TECHNICAL DOCUMENTS**

Title:	Drawing No.:	Rev. Level:	Date:
ID5001 ATEX / IECEx Technical File (20 sheets)	ID5001_X001	G00	2019-10-16
ID5001_X002 Safety Instructions (4 sheets)	ID5001_X002	D00	2019-10-16
ID5001_X003 (schematic diagram)	ID5001_X003	E00	2019-04-08
ID5001_X004 (PCB layout)	ID5001_X004	C00	2019-02-13
ID5001 Safety Critical Markings	ID5001_X006	C00	2019-10-14