



1 **EC TYPE EXAMINATION CERTIFICATE**

2 Equipment or protective system intended for use in potentially explosive atmospheres –
Directive 94/9/EC – Annex III

3 EC Type Examination Certificate No.: **TRL08ATEX21161X (incorporating variations V1 to V6)**

4 Equipment: **Ultrasonic Pipeline Pig Signallers - Models ID5000A, ID5000P,
Hi-T ULTRAlert Active Ultrasonic Pig Signaller and
Hi-T ULTRAlert Passive Ultrasonic Pig Signaller**

5 Manufacturer: **Online Electronics Ltd.,**

6 Address: **Online House, 266 Auchmill Road, Aberdeen, AB21 9NB, United Kingdom**

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

8 TRaC Global Ltd, Notified Body number 0891 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment or protective system intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential report **XU1656/8695, 16-0023-004988, 16-0122-006873, TES-003405-16-00, TRA-006022-33-00 & TRA-006193-33-00A.**

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in section 18 of the schedule to this certificate, has been assured by compliance with:

EN60079-0:2006

EN60079-1:2007

EN60079-11:2007

EN60079-18:2004

10 If the sign "X" is placed after the certificate number then this indicates that the equipment or protective system is subject to special conditions of safe use specified in the schedule to this certificate.

11 This EC-Type Examination certificate relates only to the design and construction of the specified equipment in accordance with Directive 94/9/EC. Further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of this equipment or protective system shall include the following:

II 2 G Ex d mb IIC T5 / T6 (ID5000A / Hi-T ULTRAlert Active only)

II 2 G Ex d ib IIC T5 / T6 (ID5000P / Hi-T ULTRAlert Passive only)

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

S.P. Winsor

S P Winsor, Certification Manager

Issue date: 2015-07-13

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Form RF355 is16A

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13 **SCHEDULE TO EC TYPE EXAMINATION CERTIFICATE**

14 **TRL08ATEX21161X (incorporating variation V6)**

15 **General description of equipment or protective system included within the scope of this certificate**

The ID5000A Ultrasonic Pipeline signal sensing equipment comprises of a component certified flameproof housing and a remote transducer that is connected via a cable through suitably certified cable entries. It uses Ex d mb concepts as its basis of safety. The Hi-T ULTRAlert Active Ultrasonic Pig Signaller is identical to the ID5000A, but has its own markings and own battery pack.

The flameproof housing contains all display and sensing electronics, battery pack and external power connectivity via suitably certified cable entries/glands. The signals connected to the remote transducer are adequately rated for power, voltage and current using fuses.

The transducer is housed in a metallic housing that provides robust construction and mounting facilities. The metallic transducer housing does not extend to cover the transducer face which relies upon the encapsulation as part of the enclosure to protect from ingress of liquids or solids. The exposed encapsulant is intended to be in direct contact with metallic pipelines and does not require any additional protection against impact, UV Light, or electrostatic charging. The transducer affixed to the pipeline by means of a mounting plate secured with steel bindings.

The flameproof enclosures are separately certified as component boxes under certificate numbers ISSeP08ATEX055U (GUBHS3) and ISSeP03ATEX004U (GUBH3).

The ID5000P is a variation to the previously certified ID5000 Pig Signaller. It employs a passive piezoelectric transducer and different components in the transducer and barrier circuits. It uses Ex d ib concepts as its basis of safety. The Hi-T ULTRAlert Passive Ultrasonic Pig Signaller is identical to the ID5000P, but has its own markings and own battery pack.

Permitted Ambient Temperature Range

Power Dissipation (Pd) Watts	External Power		Alkaline Battery		Rechargeable Battery	
	T5	T6	T5	T6	T5	T6
7W < Pd ≤ 10W	-40°C to +70°C	-40°C to +55°C	-20°C to +54°C	-20°C to +54°C	-20°C to +65°C	-20°C to +55°C
3W < Pd ≤ 7W	-40°C to +75°C	-40°C to +60°C	-20°C to +54°C	-20°C to +54°C	-20°C to +65°C	-20°C to +60°C
2W < Pd ≤ 3W	-20°C to +75°C	-20°C to +65°C	-20°C to +54°C	-20°C to +54°C	-20°C to +65°C	-20°C to +65°C
1W < Pd ≤ 2W	-20°C to +80°C	-20°C to +65°C	-20°C to +54°C	-20°C to +54°C	-20°C to +65°C	-20°C to +65°C
Pd ≤ 1W	-20°C to +85°C	-20°C to +70°C	-20°C to +54°C	-20°C to +54°C	-20°C to +65°C	-20°C to +65°C

A list of controlled Manufacturer's Documents is given in Appendix A to this schedule.

CONTINUATION OF SCHEDULE TO CERTIFICATE TRL08ATEX21161X V6

16 **Test report No.:** XU1656/8695, 16-0023-004988, 16-0122-006873, TES-003405-16-00 TRA-006022-33-00 & TRA-006193-33-00A

17 **“Special Conditions of Safe Use” for Ex Equipment, if any:**

1. Transducer face must be positioned close to the pipeline surface and adequately protected from impacts.
2. Transducer, cable and electronics shall only be used as a complete assembly.
3. Equipment must be adequately earth bonded via the external earth terminal. Conductor size shall be 2.5mm² or the same size as the input power cabling, whichever is the greater.
4. External power and signals shall only be supplied according to manufacturer’s instructions by suitable cable using a suitable ATEX Certified cable gland.
5. Unused cable entries shall be sealed using suitable ATEX certified blanking elements.
6. The temperature at the cable entry point may exceed +70°C. Cables suitable for use at this temperature must be used.
7. Only ID5000 battery packs shall be used with the ID5000. Only Hi-T Ultralert battery packs may be used with the Hi-T Ultralert.
8. The battery pack must be removed if the external power supply is attached.
9. Do not open enclosure nor replace battery packs when a potentially explosive atmosphere is present.
10. Temperature class is reliant on the upper ambient temperature, internal power dissipation and whether the equipment is fitted with a battery pack, or externally powered. Refer to certificate (Section 19 - Details of Markings).
11. The battery pack shall only be charged when removed from the equipment and moved to a safe area.

18 **Essential health and safety requirements**

Covered by application of the standards listed in section 9 of this certificate and the assessment conducted in the test report listed in section 16 of this certificate.

19 **Additional information**

“Routine tests”, if any:

None.

“Special conditions for manufacture”, if any:

1. Any cable length may be used between the transducer and housing providing total cable capacitance and inductance does not exceed 12.39µF and 15mH respectively.
2. ID5000P - Batch sample shall be checked to ensure encapsulant is void free as per procedure documented in ID5000P-403.
3. IP5000P - A minimum spacing of 1.5mm to be maintained on the main PCB to and between the safety critical barrier components (D11, D12, F3 and R39). The PCB tracks shall be copper, have a minimum thickness of 33µm and a minimum width (within the barrier circuit) of 1mm.

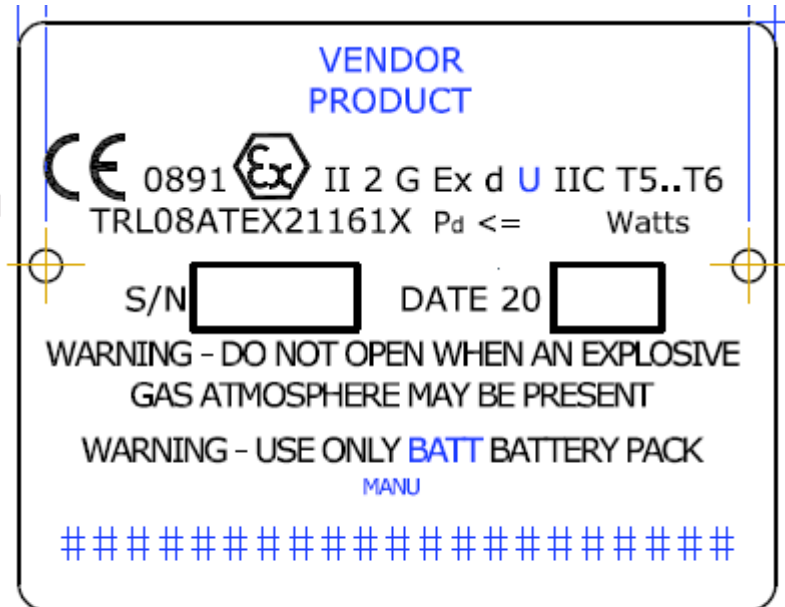
Other information, if any:

None.

Photographs



Details of markings



LABEL SIZE MAY BE INCREASED TO INCORPORATE NON ATEX INFORMATION (###)

TEXT REPLACEMENT				
	ACTIVE VERSION		PASSIVE VERSION	
	Online Electronics	GD Engineering	Online Electronics	GD Engineering
VENDOR	Online Electronics Ltd, AB21 9NB, UK	GD Engineering An SPX BRAND, S80 2PY, UK	Online Electronics Ltd, AB21 9NB, UK	GD Engineering An SPX BRAND, S80 2PY, UK
PRODUCT	ID5000A Ultrasonic Pig Signaller	H-T ULTRAlert Active Ultrasonic Pig Signaller	ID5000P Ultrasonic Pig Signaller	H-T ULTRAlert Passive Ultrasonic Pig Signaller
BATT	ID5000	H-T ULTRAlert	ID5000	H-T ULTRAlert
MANU	-	Manufactured for GD Engineering by Online Electronics Ltd, AB21 9NB, UK	-	Manufactured for GD Engineering by Online Electronics Ltd, AB21 9NB, UK
U	mb	mb	lb	lb

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 – This Variation includes minor modifications to the label drawing and battery pack part number to allow the product to be marketed under a different brand name. The brand name covered by this variation is Hi-T ULTRAlert. The certification parameters for this variation are the same as the original certification.
- Variation V1 issue 2 – This issue was to make typographical changes requested by the manufacturer.
- Variation V2 – This variation includes introduction of new model ID5000P, addition of type GUBHS3 component enclosure and change to the T rating of the ID5000 / Hi-T ULTRAlert.
- Variation V3 – This variation covered a change of designation from ID5000 to ID5000A (and corresponding name change for the Hi-T ULTRAlert Active models), a change of permitted internal power dissipation and internal component arrangement and the addition of a re-chargeable cell option and an external power option for all models.
- Variation V4 - The variation covers a modification in the encapsulation material used.
- Variation V5 – This variation covers the extension of the lower temperature range to -40°C and additional drawings for manufacture.
- Variation V6- Change to the approved batteries.

Notes to CE marking

In respect of CE Marking, TRaC Global Ltd accepts no responsibility for the compliance of the equipment against all applicable Directives in all applications.

Notes to this certificate

TRaC certification reference: **TRA-025886-32-00**.

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

This certificate is a consolidated certificate and reflects the latest status of the certification, including all variations.

CONTINUATION OF SCHEDULE TO CERTIFICATE TRL08ATEX21161X V6

APPENDIX A - LIST OF CONTROLLED MANUFACTURER'S DOCUMENTS

Title:	Drawing No.:	Rev. Level:	Date:
ID5000 Main ATEX	ID5000-250	0	2010-10-27
ID5000 Main ATEX PCB	ID5000-251	00	*
ID5000A AMP ATEX Interface Schematic	ID5000-252	0	2010-10-26
ID5000A AMP ATEX PCB Top	ID5000-253	0	2010-10-28
ID5000A AMP ATEX PCB Bottom	ID5000-254	0	2010-10-28
ID5000P AMP ATEX Interface Schematic	ID5000-255	0	2010-10-28
ID5000P AMP ATEX Interface PCB Top	ID5000-256	0	2010-10-28
ID5000P AMP ATEX Interface PCB Bottom	ID5000-257	0	2010-10-28
ID5000 TDCR ATEX Schematic	ID5000-261	0	2010-11-05
General Arrangement	ID5000-350	03	2010-11-25
Active Sensor	ID5000-351	01	2010-11-05
Battery Holder	ID5000-352	00	2010-10-27
Markings	ID5000-353	12	2015-07-01
Battery Pack	ID5000-354	03	2015-04-15
Power Dissipation	ID5000-356	04	2011-03-15
Atex Internal Assembly	ID5000-357	01	2010-10-29
Front Plate	ID5000-358	00	2010-10-28
Housing	ID5000-359	03	2011-02-02
Passive Sensor	ID5000-360	01	2011-07-18
Partition	ID5000-361	00	2011-03-21
Passive Transducer Weight	ID5000-362	00	2011-03-23
ID5000 ATEX APPENDIX	ID5000 ATEX	A02	2015-07-01
ID5000A AMP ATEX Interface BOM	ID5000-451	00	2010-10-27
ID5001P AMP ATEX Interface BOM	ID5000-452	00	2010-10-27
ID5000 ATEX MAIN PCB BOM	ID5000-454	00	2010-10-27
ID5000P Top_Bottom PCB	ID5000P-202	D	2009-11-27
ID5000P Top PCB	ID5000P-203	D	2009-11-27
ID5000P Bottom PCB	ID5000P-204	D	2009-11-27
ID5000P Transducer Schematic	ID5000P-205	E	2010-02-05
Transducer BOM	ID5000P-402	E	2010-02-08
Build Procedure and Quality Inspection For ID5000P Encapsulant	ID5000P-403	A	2010-02-03