



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.: **TRAC09ATEX21218X (incorporating variations V1 to V2)**

4 Equipment: **3014X MINI High Power Electromagnetic Transmitter and 3015X MIDI High Power Electromagnetic Transmitter**

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 **16-0082-004266 and TES-004987-16-00**.

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

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:

Ex II 2 G Ex d IIB T4-T6X

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: 2015-06-24 (issue 2)

Copy No.: 1e

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13 **SCHEDULE TO EC TYPE EXAMINATION CERTIFICATE**

14 **TRAC09ATEX21218X (incorporating variation V2)**

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

The MINI and MIDI High Power Electromagnetic (HPEM) Transmitters are designed to enable the location of PIG devices within an oil or gas pipeline. They transmit a low-frequency signal which can be picked up by a detector. Coding applied to the equipment is Ex d IIB. Temperature class is T6 for an ambient temperature range of -40 to +40 °C or T4 for an ambient temperature range of -40 to +80 °C.

They consist of a tubular flameproof enclosure constructed from 316 stainless steel (MINI HPEM) or ASTM B348 Grade 5 titanium (MIDI HPEM) with CA104 bronze alloy end caps. The tube and end caps employ threaded flamepaths. A bleed screw incorporating a flanged flamepath is fitted into one end cap. Both end caps are locked by means of a grubscrew.

The enclosure contains a coil and transmitter circuit and is powered by means of 5x 'D' size (MIDI HPEM) or 2x 'D' size (MINI HPEM) Alkaline or Lithium Thionyl cells. Permissible cell types are listed in the manufacturer's documentation.

The MINI HPEM Transmitter is now designated model type 3014X and the MIDI HPEM Transmitter is now designated model type 3015X.

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

16 **Test report No.:** 16-0082-004266 and TES-004987-16-00.

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

1. The temperature class is dependent on the ambient temperature range as follows :

Ambient temperature	T Class
-40°C to +40°C	T6
-40°C to +80°C	T4

2. Warning – Do not open when an explosive atmosphere may be present.

3. Only the following cell types are permitted to be used in this equipment :

Alkaline 1.5V 18Ah D
Duracell ID1300
Electrochem 3B0035-TC

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:

1. The MINI and MIDI HPEM units shall be subjected to a routine overpressure test in accordance with EN60079-1 Clause 16.1 at a test pressure of 1500 kPa (15 Bar) for a period greater than 10 seconds.

CONTINUATION OF SCHEDULE TO CERTIFICATE TRAC15ATEX21218X V2

“Special conditions for manufacture”, if any:

None.

Other information, if any:

None.

Photographs

MINI HPEM



MIDI HPEM



Details of markings

MIDI

TRAC

MIDI HOUSING

<p>ONLINE ELECTRONICS LTD, AB21 9NB, UK 3015X MIDI HIGH POWER ELECTROMAGNETIC TRANSMITTER CE0891 II 2 G Ex d IIB T4,T6X S/N NNNN DDM YYYY TRAC09ATEX21218X WARNING - DO NOT OPEN WHEN AN EXPLOSIVE GAS ATMOSPHERE MAY BE PRESENT WARNING - USE ONLY BBBB BBBB CELLS</p>	<p>1. NNNN SUFFIX TO S/N SHOWS THE SERIAL NUMBER OF THE UNIT. 2. YYYY SUFFIX TO DDM SHOWS THE YEAR OF MANUFACTURE. 3. BBBB BBBB IS REPLACED WITH ONE OF THE FOLLOWING: ALKALINE 1.5V 18Ah D DURACELL ID1300 ELECTROCHEM 3B0035-TC 4. 'CE' AND 'Ex' SYMBOL HEIGHT 5mm. 5. TEXT HEIGHT 3mm. 6. ADDITIONAL NON-ATEX MARKINGS MAY BE ENGRAVED.</p>
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MINI

MINI HOUSING

<p>ONLINE ELECTRONICS LTD, AB21 9NB, UK 3014X MINI HIGH POWER ELECTROMAGNETIC TRANSMITTER CE0891 II 2 G Ex d IIB T4,T6X S/N NNNN DDM YYYY TRAC09ATEX21218X WARNING - DO NOT OPEN WHEN AN EXPLOSIVE GAS ATMOSPHERE MAY BE PRESENT WARNING - USE ONLY BBBB BBBB CELLS</p>	<p>1. NNNN SUFFIX TO S/N SHOWS THE SERIAL NUMBER OF THE UNIT. 2. YYYY SUFFIX TO DDM SHOWS THE YEAR OF MANUFACTURE. 3. BBBB BBBB IS REPLACED WITH ONE OF THE FOLLOWING: ALKALINE 1.5V 18Ah D DURACELL ID1300 ELECTROCHEM 3B0035-TC 4. 'CE' AND 'Ex' SYMBOL HEIGHT 5mm. 5. TEXT HEIGHT 3mm. 6. ADDITIONAL NON-ATEX MARKINGS MAY BE ENGRAVED.</p>
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CONTINUATION OF SCHEDULE TO CERTIFICATE TRAC15ATEX21218X V2

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 certificate was issued to cover drawing updates and the inclusion of new model numbers.
- Variation V2 – Change to the approved batteries.
- Variation V2 issue 2 – Correction to drawings list.

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 TRAC15ATEX21218X V2

APPENDIX A - LIST OF CONTROLLED MANUFACTURER'S DOCUMENTS

MIDI HPEM

Title:	Drawing No.:	Rev. Level:	Date:
ATEX schematic	HPEM-200	G	2015-04-16
General assembly	MIDI-HPEM-300	H	2009-07-01
Endcap	MIDI-HPEM-302	D	2009-05-27
Bleedscrew endcap	MIDI-HPEM-303	E	2009-07-20
Bleedscrew	MINI-HPEM-304	F	2009-08-21
PCB Layout - Component side	HPEM-500 ATEX PCB	A	2009-08-27
PCB Layout - Battery side	HPEM-500 ATEX PCB	A	2009-08-27
HPEM ATEX Appendix	HPEM ATEX Appendix	A01	2015-05-08
3015X MIDI ATEX MARKINGS	3015X-358	A01	2015-03-10
3015X MIDI ATEX HOUSING	3015X-351	A	2011-03-10

MINI HPEM

Title:	Drawing No.:	Rev. Level:	Date:
ATEX schematic	HPEM-200	G	2015-04-16
General assembly	MINI-HPEM-300	H	2009-07-01
Bleedscrew endcap	MINI-HPEM-302	E	2009-07-20
Endcap	MINI-HPEM-303	D	2009-05-27
Bleedscrew	MINI-HPEM-304	F	2009-08-21
PCB Layout - Component side	HPEM-500 ATEX PCB	A	2009-08-27
PCB Layout - Battery side	HPEM-500 ATEX PCB	A	2009-08-27
HPEM ATEX Appendix	HPEM ATEX Appendix	A01	2015-05-08
3014X MINI ATEX MARKINGS	3014X-358	A01	2015-03-10
3014X MINI ATEX HOUSING	3014X-351	A	2011-03-10