IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	**IECEx EMT 22.0003X**	Page 1 of 4	Certificate history:
Status:	**Current**	Issue No: 0	
Date of Issue:	2022-11-02		
Applicant:	**Online Electronics Limited** Online House, Blackburn Business Park, Woodburn Road, Blackburn, Aberdeen, AB21 0PS **United Kingdom**		
Equipment:	**Hand-held electromagnetic receiver, EMRx Ex**		
Optional accessory:			
Type of Protection:	**Intrinsic Safety Ex "ia"**		
Marking:	Ex ia IIC T4 Ga Tamb see Annex		

Approved for issue on behalf of the IECEx Certification Body: **Stephen Winsor**

Position: **Certification Manager**

Signature:
(for printed version)

Date:
(for printed version)

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.

Certificate issued by:

Element Materials Technology
Unit 1 Pendle Place
Skelmersdale
West Lancashire
United Kingdom

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Certificate No.: **IECEx EMT 22.0003X** Page 2 of 4

Date of issue: 2022-11-02 Issue No: 0

Manufacturer: **Online Electronics Limited**
Online House, Blackburn Business Park, Woodburn Road, Blackburn, Aberdeen, AB21 0PS
United Kingdom

Manufacturing locations: **Online Electronics Limited**
Online House, Blackburn Business Park, Woodburn Road, Blackburn, Aberdeen, AB21 0PS
United Kingdom

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements.This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :
The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

GB/EMT/ExTR21.0020/00

Quality Assessment Report:

GB/TRC/QAR11.0002/09

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

Hand-held electromagnetic receiver

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. WARNING – Do not open when an explosive atmosphere may be present.
2. WARNING – Use only one of the cell types from the table below. Do not install a mixture of cell types in the equipment.
3. WARNING – Allowable ambient temperature is dependent on the cell type used.
   See Certficate Annex for details.
4. WARNING – Observe correct battery polarity as indicated on the device.

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Equipment (continued):

The equipment is a hand-held, battery powered, electromagnetic (EM) receiver intended for locating lost or stalled pipeline inspection gauges (PIG's) fitted with EM transmitters. It is intended for indoor and outdoor use in all weather conditions.

An EMRx Ex contains a single push-button for switching the unit on and off, as well as to allow gain adjustment. Three colour coded LED bargraphs each consisting of 20x separate LEDs display the signal strength of the detected transmitter, and each can be individually configured via Bluetooth to display signals over a range of frequencies between 10 Hz and 30 Hz. Additional LEDs display the remaining battery power and the activity of the Bluetooth connection. The EMRx Ex has no signal transmit functionality and is only used to receive signals from a separate transmitting device.

A fully non-metallic enclosure consists of a cylindrical polycarbonate housing capped off at both ends and fitted with rubber bumpers to protect against drops or impacts, as well as preventing the unit from rolling. A plastic grooved chassis houses the main PCB which is fully encapsulated in place other than for a glass window in direct contact with the surface of the LEDs. A shoulder strap is permitted to be used with the equipment as an accessory.

Six primary 1.5 V AA cells are pushed in series into a cavity running along the cylindrical length of the equipment to provide power. The end caps each contain a groove for an O-ring seal for the purposes of ingress protection and house a PCB containing a limited amount of wiring and tracks to connect to the power switch and main encapsulated circuitry. Three different cell types are permitted to be used and the type determines the permitted ambient temperature range of the equipment see in the table in the Annex to this certificate.

Annex:

Annex to IECEx EMT 22.0003X iss 0.pdf

Element Materials Technology,
Unit 1, Pendle Place,
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United Kingdom

Annex to IECEx Certificate of Conformity IECEx EMT 22.0003X issue No.: 0

"Ambient Temperatures"

Cell type fitted	Duracell MN1500	Energizer E91	Energizer L91
Permitted ambient temperature range	-20 °C to +54 °C	-18 °C to +55 °C	-40 °C to +60 °C

"Special conditions for manufacture"

1. none

Routine Tests

1. none

Manufacturer's Documents

Title:	Drawing No.:	Rev. Level:	Date:
EMRxEx Safety Critical Technical File (17 sheets)	EMRxEx_X001	C03	2022-09-16

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