

CERTIFICATE OF CONFORMITY



1. **HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER US REQUIREMENTS**

2. **Certificate No:** FM16US0373X

3. **Equipment:** Electronic Timer Module ETM-IS**-***
(Type Reference and Name)

4. **Name of Listing Company:** Expo Technologies Ltd

5. **Address of Listing Company:** Unit 2, The Summit
Hanworth Road
Sunbury on Thames
TW16 5DB
United Kingdom

6. The examination and test results are recorded in confidential report number:

3036907 dated 21st October 2010

7. FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:

FM Class 3600:2011, FM Class 3610:2010, FM Class 3810:2005,
ANSI/ISA 60079-0:2009, ANSI/ISA 60079-11:2011

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

9. This certificate relates to the design, examination and testing of the products specified herein. The FM Approvals surveillance audit program has further determined that the manufacturing processes and quality control procedures in place are satisfactory to manufacture the product as examined, tested and Approved.

10. Equipment Ratings:

Intrinsically safe for Class I, II and III, Division 1, Groups A, B, C, D, E, F, and G indoor hazardous (Classified) locations. Temperature Class T6 at Ta = +44 °C, T5 at Ta = +59 °C and T4 at Ta = 60 °C.

Certificate issued by:


J.E. Marquedant
Manager, Electrical Systems

23 November 2016
Date

To verify the availability of the Approved product, please refer to www.approvalguide.com

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

FM Approvals LLC. 1151 Boston-Providence Turnpike, Norwood, MA 02062 USA
T: +1 (1) 781 762 4300 F: +1 (1) 781 762 9375 E-mail: information@fmaprovals.com www.fmaprovals.com

SCHEDULE



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11. The marking of the equipment shall include:

Class I Division 1, Groups A, B, C, D;

Class II, Division 1, Groups E, F, G,

Class III, Division 1;

T4 Ta = -20°C to +60 °C; T5 Ta = -20°C to +59 °C T6 Ta = -20°C to +44 °C

12. **Description of Equipment:**

General - The Timer module is designed to be supplied from either from a self contained battery pack or from an intrinsically safe power supply. The battery pack contains a non-rechargeable battery together with current limiting resistors.

Construction - The Timer module and Solenoid Valve are designed to be installed within another enclosure.

Ratings - Input Parameters for when a = 2

Ui = 11.1V

Ii = 340 mA

Pi = 2.613 W (non linear)

Electronic Timer Module ETM-ISab-cde

IS / I, II, III / 1 / ABCDEFG / T* Ta = -20°C to *

a = sub module

1 = Timer Module powered by Expo Battery Pack

2 = IS Power Supply

3 = Expo IS Battery Pack

4 = Expo IS remote Battery Pack

b = Mounting Style

1 = Plate mounted

2 = Panel mounted

c = LED connection

1 = LED's on Timer surface

2 = LED's on flying lead

de = Maximum Time

d = Reference Value 1 to 9

e = Multiplying digit 1, 2, 3 or 4

*T4 Ta = +60°C

T5 Ta = +59°C

T4 Ta = +44°C

13. **Specific Conditions of Use:**

1. The Electronic Timer shall not be used where UV light or radiation may impinge the Electronic Timer System.

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2. The Electronic Timer shall be installed within an enclosure which provides protection against impact.
3. The Enclosure shall be metallic providing a minimum IP20.
4. For light alloy enclosures, materials shall not contain, by mass, more than 7.5% in total of magnesium, titanium and zirconium. Where more than 10% in total of aluminium, magnesium, titanium and zirconium the user shall take special precautions to avoid ignition hazard due to impact or friction.

14. Test and Assessment Procedure and Conditions:

This Certificate has been issued in accordance with FM Approvals US Certification Requirements.

15. Schedule Drawings

A copy of the technical documentation has been kept by FM Approvals.

16. Certificate History

Details of the supplements to this certificate are described below:

Date	Description
21 st October 2010	Original Issue.
25 th January 2013	<u>Supplement 1:</u> Report Reference: 3036907RR130109 Dated 25 th January 2013 Description of the Change: Addition of IS Power Suply.
18 th October 2013	<u>Supplement 2:</u> Report Reference: – 3049400 dated 18 th October 2013 Description of the Change: Additional cell types for the battery pack and alternate power source.
23 rd November 2016	<u>Supplement 3:</u> Report Reference: – RR206511 dated 23 rd November 2016 Description of the Change: Change in T-Class.

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