

# CERTIFICATE OF CONFORMITY



1. **HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT**
2. **Certificate No:** FM16US0005X
3. **Equipment:** Model FT1 Thermal Mass Gas Flow Meter and Temperature Transmitter  
**(Type Reference and Name)**
4. **Name of Listing Company:** Fox Thermal Instruments Inc.
5. **Address of Listing Company:** 399 Reservation Road  
Marina, CA 93933  
USA
6. The examination and test results are recorded in confidential report number:  

3052981 dated 9<sup>th</sup> March 2016
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 3615:2006, FM Class 3616:2011, FM Class 3810:2005,  
ANSI/ISA 60079-0:2013, ANSI/UL 60079-1:2015, ANSI/NEMA 250:1991, ANSI/IEC 60529:2004
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 only to the design, examination and tests of the specified equipment. Further requirements of FM Approvals apply to the manufacturing process and supply of this equipment. These are not covered by this certificate. FM Approvals apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.
10. **Equipment Ratings:**  

Explosionproof for Class I, Division 1, Groups B, C and D; Dust-ignitionproof for Class II, Division 1, Groups E, F and G; Class III, Division 1; Flameproof for Class I, Zone 1, AEx db IIB+H2 T4 Gb hazardous (classified) locations, indoors and outdoors (Type 4X, IP66/67) with an ambient temperature rating of -40°C to +70°C.

**Certificate issued by:**

J. E. Marquedant  
Manager, Electrical Systems

9 March 2016

Date

To verify the availability of the Approved product, please refer to [www.approvalguide.com](http://www.approvalguide.com)

**HIS 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@fmapprovals.com](mailto:information@fmapprovals.com) [www.fmapprovals.com](http://www.fmapprovals.com)

# SCHEDULE



## Hazardous (Classified) Location Electrical Equipment to FM16US0005X

11. The marking of the equipment shall include:

Class I Division 1, Groups B, C, D; T4 Ta = -40°C to +70°C; Type 4X, IP66/67

Class II, Division 1, Groups E, F, G, Class III, Division 1; T4 Ta = -40°C to +70°C; Type 4X, IP66/67

Class I, Zone 1, AEx db IIB+H2 T4 Gb Ta = -40°C to +70°C, Type 4X, IP66/67

12. **Description of Equipment:**

**General** - The Model FT1 Thermal Gas Mass Flow Meter and Temperature Transmitters are used for measuring the mass flow of gases as well as the process gas temperature all in one package. The flowmeters are available for inline or insertion applications. The product features 4-20mA and/or pulse outputs and is also available with an optional display/configuration panel. Digital communications options include USB, HART and RS485 Modbus.

**Construction** - The Model FT1 Thermal Gas Mass Flow Meter and Temperature Transmitter consists of a single compartment electronics housing with thread-on window cover and a probe inserted through the housing base forming a cylindrical joint. The enclosure is provided with two (2) ¾ inch NPT openings.

**Ratings** - The Model FT1 Thermal Gas Mass Flow Meter and Temperature Transmitters operate at 12-28 Vdc (6W). The transmitters are rated for use in an ambient temperature range of -40°C to +70°C. The transmitter probes are rated for use in a process temperature range of -40°C to +121°C.

***FT1-a-b-c-d. Thermal Mass Gas Flow Meter and Temperature Transmitter (Insertion).***

a = Probe 04I, 05I, 06I, 07I, 08I, 09I, 10I, 11I, 12I, 13I, 14I, 15I, 16I, 17I, 18I, 19I, 20I, 21I, 22I, 23I, 24I, 25I, 26I, 27I, 28I, 29I, 30I, 31I, 32I, 33I, 34I, 35I, 36I, 15R, 18R, 24R, 30R or 36R.

b = Sensor material SH, SJ, SL or BLANK.

c = Display D0 or DD.

d = Output BH, PL or RS.

***FT1-a-b-c-d. Thermal Mass Gas Flow Meter and Temperature Transmitter (Inline).***

a = Flow body 10F, 15F, 20F, 25F, 30F, 40F, 60F, 125F, 10FC, 15FC, 20FC, 25FC, 30FC, 40FC, 60FC, 125FC, 10P, 15P, 20P, 25P, 30P, 40P, 125P, 10PC, 15PC, 20PC, 25PC, 30PC, 40PC or 125PC.

b = Sensor material SH or BLANK.

c = Display D0 or DD.

d = Output BH, PL or RS.

13. **Specific Conditions of Use:**

1. The flamepaths of the equipment are not intended to be repaired. Consult the manufacturer if repair of the flamepath joints is necessary.
2. Refer to the manufacturer's instructions to reduce the potential of an electrostatic charging hazard on the equipment enclosure.

14. **Test and Assessment Procedure and Conditions:**

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

**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](mailto:information@fmaprovals.com) [www.fmaprovals.com](http://www.fmaprovals.com)

# SCHEDULE



Hazardous (Classified) Location Electrical Equipment to FM16US0005X

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
9 March 2016	Original Issue.

**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](mailto:information@fmaprovals.com) [www.fmaprovals.com](http://www.fmaprovals.com)