

J. E. Marquedant

#### INTERNATIONAL ELECTROTECHNICAL COMMISSION **IEC Certification System for Explosive Atmospheres**

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

**IECEx FMG 17.0008X** Certificate No.: Page 1 of 5 Certificate history:

Issue No: 10 Status: Current

Date of Issue: 2022-05-17

Applicant: Fox Thermal Instruments Inc.

> 399 Reservation Road Marina, CA 93933 **United States of America**

Equipment: Model FT4X and 645i, 650i, 745i and 750i Series Thermal

**Mass Flow Meter and Temperature Transmitter** 

Optional accessory:

Type of Protection: Flameproof, d; Enclosure, t

Marking: **IECEx FMG 17.0008X** 

Ex db IIB+H2 T6 or T4 Gb

Ex tb III C T85°C or T135°C Db

Ta = -20°C to +70°C

IP67

Approved for issue on behalf of the IECEx

Certification Body:

Position: VP, Manager - Electrical Systems

Signature:

(for printed version)

(for printed version)

- This certificate and schedule may only be reproduced in full.

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Issue 9 (2021-10-12)

Issue 8 (2021-07-07) Issue 7 (2020-10-05)

Issue 6 (2019-06-18) Issue 5 (2019-02-21)

Issue 4 (2018-11-26)

Issue 3 (2018-09-17)

Issue 2 (2018-05-15)

Issue 1 (2018-01-24) Issue 0 (2017-03-31)

Certificate issued by:

**FM Approvals LLC** 1151 Boston-Providence Turnpike Norwood, MA 02062 **United States of America** 



Member of the FM Global Group



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Manufacturer: Fox Thermal Instruments Inc.

399 Reservation Road Marina, CA 93933 United States of America

Manufacturing Fox Thermal Instruments Inc.

locations: 399 Reservation Road

Marina, CA 93933 United States of America

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 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"

Edition:7.0

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

Edition:2

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 Reports:

 US/FMG/ExTR17.0007/00
 US/FMG/ExTR17.0007/01
 US/FMG/ExTR17.0007/02

 US/FMG/ExTR17.0007/03
 US/FMG/ExTR17.0007/04
 US/FMG/ExTR17.0007/05

 US/FMG/ExTR17.0007/06
 US/FMG/ExTR17.0007/07
 US/FMG/ExTR17.0007/08

 US/FMG/ExTR17.0007/09
 US/FMG/ExTR17.0007/10

**Quality Assessment Report:** 

GB/FME/QAR12.0003/05



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#### **EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

#### FT4X-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 = Enclosure E1, E2, E3 or E4.
- c = Communication BH, BN, B0 or RS.
- d = Data logger, display and sensor L0, BLANK, D0, LD0, SH, SJ or SI.

#### FT4X-a-b-c-d. Thermal Mass Gas Flow Meter and Temperature Transmitter (Inline).

a = Flow body 05F, 075F, 10F, 15F, 20F, 25F, 30F, 40F, 60F, 125F, 20FC, 25FC, 30FC, 40FC, 60FC, 075G, 10G, 15G, 20G, 25G, 30G, 40G, 60G, 125G, 20GC, 25GC, 30GC, 40GC, 60GC, 025P, 05P, 075P, 10P, 15P, 20P, 25P, 30P, 40P, 125P, 20PC, 25PC, 30PC or 40PC.

- b = Enclosure E1, E2, E3 or E4.
- c = Communication BH, BN, B0 or RS.
- d = Data logger, display and sensor L0, BLANK, D0, LD0, SH, SJ or SI.

#### SPECIFIC CONDITIONS OF USE: YES as shown below:

- 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.
- 3. The equipment temperature code ratings are dependent on the enclosure configuration (local or remote). Refer to the following table for specific temperature code markings.

Model Code	Temperature Code Marking-Gas		Temperature Code Marking-Dust	
Enclosure (variable "b")	Main Enclosure	Remote Enclosure	Main Enclosure	Remote Enclosure
E1	T4	N/A	T135°C	N/A
E2	T4	N/A	T135°C	N/A
E3	T6	T4	T85°C	T135°C
E4	T6	T4	T85°C	T135°C



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#### Equipment (continued):

#### 6ai-b-c-d-e. Thermal Mass Gas Flow Meter and Temperature Transmitter (Insertion).

a = Meter 45 or 50.

b = 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.

- c = Enclosure E1, E2, E3 or E4.
- d = Communication BH, BN, B0 or RS.
- e = Data logger, display and sensor L0, BLANK, D0, LD0, SH, SJ or SI.

#### 7ai-b-c-d-e. Thermal Mass Gas Flow Meter and Temperature Transmitter (Inline).

a = Meter 45 or 50.

b = Flow body 05F, 075F, 10F, 15F, 20F, 25F, 30F, 40F, 60F, 125F, 20FC, 25FC, 30FC, 40FC, 60FC, 075G, 10G, 15G, 20G, 25G, 30G, 40G, 60G, 125G, 20GC, 25GC, 30GC, 40GC, 60GC, 025P, 05P, 075P, 10P, 15P, 20P, 25P, 30P, 40P, 125P, 20PC, 25PC, 30PC or 40PC.

- c = Enclosure E1, E2, E3 or E4.
- d = Communication BH, BN, B0 or RS.
- e = Data logger, display and sensor L0, BLANK, D0, LD0, SH, SJ or SI.



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**DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)** 

Add 645i, 650i, 745i and 750i Series.