



1. EU-TYPE EXAMINATION CERTIFICATE

2. Equipment or Protective systems intended for use in Potentially Explosive Atmospheres - Directive 2014/34/EU

3. EU-Type Examination Certificate No: FM16ATEX0013X

4. Equipment or protective system:
(Type Reference and Name) FT Series Thermal Mass Gas Flow Meter and Temperature Transmitter
MDot Series Thermal Mass Gas Flow Meter and Temperature Transmitter

5. Name of Applicant: Fox Thermal Instruments Inc

6. Address of Applicant 399 Reservation Rd,
Marina, California 93933, USA

7. This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and documents therein referred to.

8. FM Approvals Europe Ltd, notified body number 2809 in accordance with Article 17 of Directive 2014/34/EU of 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

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

3052981 dated 9th March 2016

9. Compliance with the Essential Health and Safety Requirements, with the exception of those identified in item 15 of the schedule to this certificate, has been assessed by compliance with the following documents:

EN IEC 60079-0:2018, EN 60079-1:2014, EN 60079-31:2014, EN 60529:1991+A1:2000+A2:2013

10. 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.

11. This EU-Type Examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

Certificate issued by:

Digitally signed
by Richard
Zammit
Location: Ireland
Foxit PDF Editor
Version: 13.0.1

Certification Manager, FM Approvals Europe Ltd.

Date 01 February 2024

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F ATEX 020 (Dec/2020)



Page 1 of 5

SCHEDULE

EU-Type Examination Certificate No. FM16ATEX0013X



12. The marking of the equipment or protective system shall include:



II 2 G Ex db IIB+H₂ T4 Gb Ta = -40°C to +70°C
II 2 D Ex tb IIIC T135°C Db Ta = -40°C to +70°C

13. Description of Equipment or Protective System:

General - The FT Series and MDot Series Thermal Mass Gas 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 FT Series and MDot Series Thermal Mass Gas 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) ¼ inch NPT openings.

Ratings - The FT Series and MDot Series Thermal Mass Gas 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 at a maximum pressure of 740 psi.

The enclosures have an ingress protection rating of IP66/67.

See Annex for model codes.

14. 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.

15. Essential Health and Safety Requirements:

The relevant EHSRs that have not been addressed by the standards listed in this certificate have been identified and assessed in the confidential report identified in item 8.

16. Test and Assessment Procedure and Conditions:

This EU-Type Examination Certificate is the result of testing of a sample of the product submitted, in accordance with the provisions of the relevant specific standard(s), and assessment of supporting documentation. It does not imply an assessment of the whole production.

Whilst this certificate may be used in support of a manufacturer's claim for CE Marking, FM Approvals Europe Ltd accepts no responsibility for the compliance of the equipment against all applicable Directives in all applications.

This Certificate has been issued in accordance with FM Approvals Europe Ltd's ATEX Certification Scheme.

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17. Schedule Drawings

A list of the significant parts of the technical documentation is annexed to this certificate and a copy has been kept by the Notified Body.

18. Certificate History

Details of the supplements to this certificate are described below:

Date	Description
14 March 2016	Original Issue.
8 June 2016 to 24 May 2022	<u>Supplements 1 to 10:</u> See certificate dated 24 th May 2022.
18 October 2022	<u>Supplement 11:</u> Report Reference: PR461958 dated 18 th October 2022. Description of the Change: Add MDot Series. Minor text corrections.
15 November 2022	<u>Supplement 12:</u> Report Reference: RR234631 dated 08 th November 2022. Description of the Change: Minor documentation changes not affecting the equipment safety.
21 September 2023	<u>Supplement 13:</u> Report Reference: PR466793 dated 18 September 2023. Description of the Change(s): Remove 645S, 650S, 745S and 750S models and associated documentation changes.
1 February 2024	<u>Supplement 14:</u> Report Reference: RR239357 dated 28 January 2024. Description of the Change: Minor documentation changes not affecting the equipment safety.

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ANNEX

FT Series Inline

Description of Equipment:

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

a = Model 1 or 4A.

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

c = Sensor material SH or BLANK.

d = Display D0 or DD.

e = Output BH, P1 or RS.

FT Series Insertion

Description of Equipment:

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

a = Model 1 or 4A.

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 = Sensor material SH, SJ, SL or BLANK.

d = Display D0 or DD.

e = Output BH, P1 or RS.

MDot Series Inline

Description of Equipment:

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

a = Flow body 075F, 10F, 15F, 20F, 25F, 30F, 40F, 60F, 125F, 10FC, 15FC, 20FC, 25FC, 30FC, 40FC, 60FC, 125FC, 075P, 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, P1 or RS.

MDot Series Insertion

Description of Equipment:

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

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Member of the FM Global Group

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, P1 or RS.



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