

CERTIFICATE OF CONFORMITY



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

2. **Certificate No:** FM20US0072X
3. **Equipment:** Series 441 and 442
(Type Reference and Name) Temperature Head Transmitters

4. **Name of Listing Company:** Pyromation, Inc.

5. **Address of Listing Company:** 5211 Industrial Road
Fort Wayne, IN 46825
USA

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

3023359 dated 13th May 2005

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

FM Class 3600:2018, FM Class 3610:2018, FM Class 3611:2018,
FM Class 3810:2018, ANSI/UL 121201:2018, ANSI/ISA 61010-1:2012,
ANSI/ISA 60079-0:2009, ANSI/ISA 60079-11:2009

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, Division 1, Groups A, B, C and D, T*
Non-incendive for Class I, Division 2, Groups A, B, C and D T*
T* = T6 Ta = -40°C to +55°C, T5 Ta = -40°C to +70°C, T4 Ta = -40°C to +85°C

Certificate issued by:

J.E. Marquedant
VP, Manager - Electrical Systems

8 January 2021
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@fmapprovals.com www.fmapprovals.com

SCHEDULE

US Certificate Of Conformity No: FM20US0072X



Member of the FM Global Group

11. The marking of the equipment shall include:

Series 441

Class I, Division 1, Groups A,B, C and D, T* Entity M007302

Class I, Division 2, Groups A, B, C and D; T*; NIFW M007302

T* = T6 Ta = -40°C to +55°C, T5 Ta = -40°C to +70°C, T4 Ta = -40°C to +85°C

Series 442

Class I, Division 1, Groups A,B, C and D, T*; Entity M006602

Class I, Division 2, Groups A, B, C and D; T*; NIFW M006602

T* = T6 Ta = -40°C to +55°C, T5 Ta = -40°C to +70°C, T4 Ta = -40°C to +85°C

12. **Description of Equipment:**

General - The Pyromation Series 441 and 442 are used for measurement and conversion of resistance thermimeters, thermocouples, resistance-type sensors in a 4-20mA current loop.

Ratings -

Series 441

Entity/Non-incendive Field wiring Parameters:

Terminals	Vmax (V)	I _{max} (mA)	Pi (mW)	Ci (μF)	Li (mH)
1 and 2	30	100	750	0	0
Terminals	Voc (V)	I _{sc} (mA)	Po (mW)	Ca (nF)	La (mH)
3, 4, 5 and 6	8.2	4.5	9.36	974	4.5

Series 442

Entity/Non-incendive Field wiring Parameters:

Terminals	Vmax (V)	I _{max} (mA)	Pi (mW)	Ci (μF)	Li (mH)
1 and 2	30	100	750	0	0
Terminals	Voc (V)	I _{sc} (mA)	Po (mW)	Ca (μF)	La (mH)
3, 4, 5 and 6	6.0	2.5	3.75	40	100

Models:

Series 441. Temperature Head Transmitter.

Series 442. Temperature Head Transmitter.

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

US Certificate Of Conformity No: FM20US0072X



Member of the FM Global Group

13. Specific Conditions of Use:

1. The product shall be installed in compliance with the enclosure, mounting, spacing and segregation requirements of the ultimate application including access only by the use of a tool.

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
13 th May 2005	Original Issue.
8 th January 2021	<u>Supplement 2:</u> Report Reference: – RR223767 dated 8 th January 2021. Description of the Change: Updated FM standards to the latest editions. Added ANSI/UL 121201 and ANSI/ISA 61010-1. Updated Certificate format with new unique certificate number.

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