

# CERTIFICATE OF CONFORMITY



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

2. **Certificate No:** FM18US0109

3. **Equipment:** *Listing #1,2 ADM 7407 Ultrasonic Flow Transmitter*  
**(Type Reference and Name)** *Listing #3,4 Fluxus x70y Ultrasonic Flowmeter*  
*Listing #5,6 PIOX S70y Ultrasonic Analyzer*

4. **Name of Listing Company:** FLEXIM GmbH

5. **Address of Listing Company:** Boxberger Strasse 4  
D-12681, Berlin  
Germany

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

3026756 dated 4<sup>th</sup> December 2006

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 3611:2004, FM Class 3810:2005, ANSI/ISA 61010-1:2004  
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 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:

Nonincendive for use in Class I, II, III, Division 2, Groups A, B, C, D, E, F, and G Temperature Class T5  
-20°C ≤ Ta ≤ 60°C; (DC Version); T4A -20°C ≤ Ta ≤ 55°C (AC Version) IP66 for models ADM 7407, Fluxus  
x70y and PIOX S70y, for Hazardous (Classified) Indoor/Outdoor Locations.

**Certificate issued by:**

  
\_\_\_\_\_  
J.E. Marquedant

VP, Manager - Electrical Systems

9 April 2020

\_\_\_\_\_  
Date

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

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# SCHEDULE



US Certificate Of Conformity No: FM18US0109

11. The marking of the equipment shall include:

*Listing #1*

**abccddefg-hhhhiiiiijjkmn. ADM 7407 Ultrasonic Flow Transmitter. (AC Version)**  
NI Class I, II, III Division 2 Groups A, B, C, D, E, F, and G; T4A  $-20^{\circ}\text{C} \leq T_a \leq 55^{\circ}\text{C}$ ; IP66

*Listing #2*

**abccddefg-hhhhiiiiijjkmn. ADM 7407 Ultrasonic Flow Transmitter. (DC Version)**  
NI Class I, II, III Division 2 Groups A, B, C, D, E, F, and G; T5  $-20^{\circ}\text{C} \leq T_a \leq 60^{\circ}\text{C}$ ; IP66

*Listing #3*

**abccddefg-hhhhiiiiijjkmn. Fluxus x70y Ultrasonic Flowmeter. (AC Version) (x=F, G, or H, y= 1, 4, 5, or 4-A2)**  
NI Class I, II, III Division 2 Groups A, B, C, D, E, F, and G; T4A  $-20^{\circ}\text{C} \leq T_a \leq 55^{\circ}\text{C}$ ; IP66

*Listing #4*

**abccddefg-hhhhiiiiijjkmn. Fluxus x70y Ultrasonic Flowmeter. (DC Version) (x=F, G, or H, y= 1, 4, 5, or 4-A2)**  
NI Class I, II, III Division 2 Groups A, B, C, D, E, F, and G; T5  $-20^{\circ}\text{C} \leq T_a \leq 60^{\circ}\text{C}$ ; IP66

*Listing #5*

**abccddefg-hhhhiiiiijjkmn. PIOX S70y Ultrasonic Analyzer. (AC Version) (y= 1, 4, 5, or 4-A2)**  
NI Class I, II, III Division 2 Groups A, B, C, D, E, F, and G; T4A  $-20^{\circ}\text{C} \leq T_a \leq 55^{\circ}\text{C}$ ; IP66

*Listing #6*

**abccddefg-hhhhiiiiijjkmn. PIOX S70y Ultrasonic Analyzer. (DC Version) (y= 1, 4, 5, or 4-A2)**  
NI Class I, II, III Division 2 Groups A, B, C, D, E, F, and G; T5  $-20^{\circ}\text{C} \leq T_a \leq 60^{\circ}\text{C}$ ; IP66

12. **Description of Equipment:**

The Ultrasonic Flow Transmitters are clamp-on flow transducers. The transducers are designed to be mounted onto a pipe for measurement of the flow within the pipe. They are designed to send and receive a sonic signal into the pipe which measures the flow rate. The system is powered by AC mains 100-240 VAC 50/60 Hz, 11-16 VDC or 20-32 VDC version. The unit outputs high frequency pulses at a maximum of 140V for 1us at a duty cycle of 0.5%. The current draw is negligible. These outputs are either wired through conduit to the transducers or connect from the enclosure directly to the transducers. An optional conduit connection can also be made to a computer network.

The Ultrasonic Flow Transmitter is housed in a powder coated aluminum or stainless steel enclosure designed to be part of a fixed installation. Wiring connections are made through conduit. The enclosure contains an optional window for monitoring the status of the system and for system setup and calibration.

### **Operation Temperature Range:**

The ambient operating temperature range is  $-20^{\circ}\text{C}$  to  $55^{\circ}\text{C}$  (AC Version);  $-20^{\circ}\text{C}$  to  $60^{\circ}\text{C}$  (DC Version).

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US Certificate Of Conformity No: FM18US0109

**Model Code:**

*Listing #1 ADM 7407 (AC Version), Listing #3 FLUXUS x70y (AC Version), Listing #5 PIOX S70y (AC Version),*

- a = Fluid Class: F, G, H or S.
- b = Form Factor: 7
- cc = Version: 01, 02 or 03
- dd = Safety Rating: Z2
- e = Glands/Hubs: M, T, D, R, or S
- f = Number of Channels: 1 or 2
- g = Power Options: 9
- hhhh = Input Options (up to four): N, T, U, A, or I
- iiiiii = Slot Options (up to three pairs of the following): NN, AN, AA, IN, II, UN, HN, FN, ZN, CN, CC, RN, RR, DN, DD, KN, KK, EN, EE, PN, PP, HI, HA, BB or SS
- jjj = Output Options (up to three): C, D, N or R
- k = Connectivity Options: A, F, H, N, V or Y
- m=Mainboard Type: 8 or 9
- n= Front End Type: C, L or W

*Listing #2 ADM 7407 (DC Version), Listing #4 FLUXUS x70y (DC Version), Listing #6 PIOX S70y (DC Version),*

- a = Fluid Class: F, G, H or S.
- b = Form Factor: 7.
- cc = Version: 01, 02 or 03
- dd = Safety Rating: Z2
- e = Glands/Hubs: M, T, D, R, or S.
- f = Number of Channels: 1 or 2
- g = Power Options: 1 or 2
- hhhh = Input Options (up to four): N, T, U, A, or I
- iiiiii = Slot Options (up to three pairs of the following): NN, AN, AA, IN, II, UN, HN, FN, ZN, CN, CC, RN, RR, DN, DD, KN, KK, EN, EE, PN, PP, HI, HA, BB or SS
- jjj = Output Options (up to three): C, D, N or R
- k = Connectivity Options: A, F, H, N, V or Y
- m = Mainboard Type: 8 or 9
- n = Front End Type: C, L or W

**13. Specific Conditions of Use:**

None

**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.

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# SCHEDULE



US Certificate Of Conformity No: FM18US0109

## 16. Certificate History

Details of the supplements to this certificate are described below:

Date	Description
4 <sup>th</sup> December 2006	Original Issue.
23 <sup>rd</sup> May 2018	<u>Supplement 7:</u> Report Reference: 3061490 dated 23 <sup>rd</sup> May 2018. Description of the Change: Added modified x721/S721 IP65 rated enclosure used with the Fluxus Ultrasonic Flowmeter and PIOX Ultrasonic Analyzer. Removed the x721/S721 from the the model codes options of the Fluxus and PIOX with IP66 ratings.
23 <sup>rd</sup> December 2019	<u>Supplement 8:</u> Report Reference: RR221334 dated 23 <sup>rd</sup> December 2019. Description of the Change: Change of company name and address from Flexim Americas Corporation, Edgewood, NY. Added Model code option "H" and "S".
9 <sup>th</sup> April 2020	<u>Supplement 9:</u> Report Reference: RR222722 dated 9 <sup>th</sup> April 2020. Description of the Change: Relocated models Fluxus x721 and PIOX S721 from certificate FM18US0109 to new certificate FM20US0034 (also associated with Project ID 3026756). Apply new DC/DC converter.

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