

# CERTIFICATE OF CONFORMITY

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

2. Certificate No: FM24US0209X
3. Equipment:  
(Type Reference and Name) F2xx Series Network Ethernet Cameras
4. Name of Listing Company: Spectrum Camera Solutions LLC
5. Address of Listing Company: 8935 Almeda Genoa Road, Houston, Texas 77075,  
United States of America
6. The examination and test results are recorded in confidential report number:  
PR463367 dated 17 December 2024

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

FM 3600:2022, FM 3615:2022, FM 3616:2022, ANSI/UL 50E:2020 (R2024),  
ANSI/UL 60079-0:2020 (R2024), ANSI/UL 60079-1:2020 (R2024), ANSI/UL 60079-11:2018,ANSI/UL  
60079-18:2019, ANSI/UL 60079-31:2015, ANSI/IEC 60529:2020

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:  
Refer to the Annex.
11. The marking of the equipment shall include:  
Refer to the Annex.

**Certificate issued by:**



17 December 2024

J.E. Marquedant  
VP, Manager - Electrical Systems

Date

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

**THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE**

FM Approvals LLC. One Technology Way, Norwood, MA 02062 USA  
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## SCHEDULE

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### 12. Description of Equipment:

The F2xx Series Network Ethernet Cameras are designed to provide CCTV monitoring in hazardous environments.

The F2xx Network Ethernet Cameras are housed in a single compartment enclosure with blind and window thread-on covers. The enclosure contains three threaded entries available as 3/4 inch 14-NPT or M25 x 1.5 mm.

The F2xx Series Network Ethernet Cameras can be supplied with a variety of cameras and other devices in accordance with ANSI/IEC 60950 and/or ANSI/IEC 62368. The equipment can be powered by 120-240 Vac (50/60 Hz), 12 Vdc, 24 Vdc or via PoE (Power over Ethernet; IEEE 802.3bt). The total maximum wattage of the equipment in any voltage configuration shall not exceed the tested configuration of 90 W. The equipment contains a heater and thermostat to prevent condensation within the enclosure and fogging of the enclosure window. The equipment can be optionally supplied with a wireless transmitting device in accordance with ANSI/IEC 62368 with an externally mounted antenna. The antenna is sealed/separated from the enclosure via a certified antenna coupler/barrier.

The F2xx Series Network Ethernet Cameras were evaluated for a maximum operating temperature range of -50°C to +90°C. However, the product may be marked for narrower operating temperature ranges depending on the configuration.

Refer to the Annex for model codes.

### 13. Specific Conditions of Use:

1. Flameproof joints are not intended to be repaired. Consult the manufacturer if dimensional information on the flameproof joints is necessary.
2. Follow the manufacturer's instructions to reduce the potential of an electrostatic charging hazard on the surface of the equipment in Group II and III environments.
3. The equipment within the enclosure may be placed in any arrangement provided that an area of at least 20% of each cross-sectional area remains free to permit unimpeded gas flow and, therefore, unrestricted development of an explosion. Separate relief areas may be aggregated provided each area has a minimum dimension, in any direction, of 12.5 mm.

### 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:

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Date	Description
17 December 2024	Original Issue.



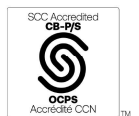
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## SCHEDULE

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# ANNEX

## F2xx Series

### Equipment Ratings:

Explosionproof for Class I, Division 1, Groups B, C and D; Dust-ignitionproof for Class II/III, Division 1, Groups E, F and G; Flameproof for Class I, Zone 1, AEx db IIB+H2 Gb; Protection by enclosure for Zone 21, AEx tb IIIC Db hazardous (classified) locations, indoors and outdoors (Type 4X, IP66).

### Markings:

Class I Division 1 Groups BCD  
Class II/III Division 1 Groups EFG  
Class I, Zone 1, AEx db IIB+H2 Gb  
Zone 21, AEx tb IIIC Db  
Type 4X, IP66

Ambient Temperature	Temperature Code - Gas (Division & Zone)	Temperature Code - Dust (Zone only)
-50°C to +50°C	T6	T87°C
-50°C to +65°C	T5	T102°C
-50°C to +90°C	T4	T127°C

Ambient Temperature	Temperature Code - Dust (Division only)
-50°C to +48°C	T6
-50°C to +63°C	T5
-50°C to +90°C	T4

Actual product markings may or may not include all of the markings shown above.

### Description of Equipment:

#### F2a-xx-b-c. Network Ethernet Camera.

a = Sensor: (two digits from 00 to 99).

b = Power: 01, 02, 03 or 04.

c = Network: 01 or 02.

x = Options not affecting the equipment safety.

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### F2xx Series with Wireless

#### Equipment Ratings:

Explosionproof for Class I, Division 1, Groups B, C and D; Dust-ignitionproof for Class II/III, Division 1, Groups E, F and G; Flameproof for Class I, Zone 1, AEx db mb [ia Ga] IIB+H2 Gb; Protection by enclosure for Zone 21, AEx mb tb [ia Da] IIIC Db hazardous (classified) locations, indoors and outdoors (Type 4X, IP66).

#### Markings:

Class I Division 1 Groups BCD  
Class II/III Division 1 Groups EFG  
Class I, Zone 1, AEx db mb [ia Ga] IIB+H2 Gb  
Zone 21, AEx mb tb [ia Da] IIIC Db  
Type 4X, IP66

Ambient Temperature	Temperature Code - Gas (Division & Zone)	Temperature Code - Dust (Zone only)
-40°C to +50°C	T6	T87°C
-40°C to +65°C	T5	T102°C
-40°C to +70°C	T4	T107°C
-40°C to +85°C	T4	T122°C

Ambient Temperature	Temperature Code - Dust (Division only)
-40°C to +48°C	T6
-40°C to +63°C	T5
-40°C to +70°C	T4
-40°C to +85°C	T4

Actual product markings may or may not include all of the markings shown above.

#### Description of Equipment:

##### F2a-xx-b-03-c-xx, Network Ethernet Camera.

a = Sensor: (two digits from 00 to 99).

b = Power: 01, 02, 03 or 04.

c = Wireless: (two digits from 00 to 99).

x = Options not affecting the equipment safety.

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