Certificate of Compliance

FIRE PROTECTION EQUIPMENT

This certificate is issued for the following equipment:

Flame Detector model FDS300, FDS301, FDS303, CD-F-300 and CD-F-301

Approval Guide Listing: Category: ⬛Electrical Signaling ⬛Alarm Signal Initiating Devices ⬛Fire Detection, Flame-Actuated

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This certifies that the equipment described has been found to comply with the applicable requirements, as stated in the Approval Report(s), of the following FM Approval Standards and other documents:

Approval Standards		Other Standards	
Class Number	*Date*	*Organization, Designation*	*Date*
3260	2000	ANSI/FM 3260	2004
3600	2018	EN54-10	2002
3615	2018	ANSI/NEMA 250	2014
		CSA C22.2 No. 0.4-04	R2013
		CSA C22.2 No. 0.5	R2012
		CSA C22.2 No. 30	R2012
		CSA C22.2 No. 94-M91	R2011
		CSA C22.2 No. 142-M1987	1987 [R2004]
		ANSI/ISA-60079-0	2013
		ANSI/UL-60079-1	2015
		ANSI/IEC 60529, CSA-C22.2 No. 60529	2004, 2005

Original Approval Job Identification: 3029978   Approval Granted: November 16, 2007

Related Report: 3035984, 3009845, 3042009, 3046299, 3052776, 3050687, 3062102
Subsequent Revisions: rev 090421, RR203915, RR209847

To verify the availability of the Approved product, please refer to www.approvalguide.com

J. E. Marquedant

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10 May 2018
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Date

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Model FDS300 Visual Flame Detector

The FDS300 Visual Flame Detector is Approved for use at factory default settings for the US and Canada. The FDS300 detector operates from 18 to 32Vdc with firmware version 1.06. The detector dry contact Form C relay outputs connect to a compatible Approved control panel for alarm and trouble reporting. The FDS300 was tested for flame response with Methane, Ethanol, Heptane, Gasoline, JP4 Jet Fuel, and Silane. The FDS300 maximum flame detection distance was measured at 197ft. [60m] with a field of view of [vertical] 80.5° and [horizontal] 120°. Suitable as explosionproof for use in Class I, Division 1, Groups B, C and D; flameproof for use in Class I, Zone 1, AEx/Ex db IIC with a T4 temperature class rating in hazardous

Model FDS301

The FDS301 Visual Flame Detector is Approved for use at factory default settings. The color imaging detector incorporates an integral CCTV camera. The FDS301 detector operates from 18 to 30Vdc with firmware version 1.18. The detector dry contact Form C relay outputs connect to a compatible Approved control panel for alarm and trouble reporting. Fuels tested for response are Methane, Ethanol, Heptane, Gasoline, JP4 Jet Fuel, and Silane. Suitable as explosionproof for use in Class I, Division 1, Groups B, C and D; flameproof for use in Class I, Zone 1, AEx/Ex db IIC with a T4 temperature class rating in hazardous (classified) locations, indoors and outdoors Type 4X / IP66. Operating temperature range is -60°C to +85°C (-76°F to +185°F).

Model FDS303

The FDS303 IR3 Multi Spectrum Flame Detector is Approved for use:
Operating Voltage: 24Vdc [18 to 32Vdc]
Current draw: 0.42A [10W], with heater - 0.63A [15W]
Dry contact Form C relay outputs: 30Vdc, 2A
Operating temperature and humidity range is -60°C to +85°C (-76°F to +185°F), 93%
4-20mA Outputs: 0mA - Power/Detector Fault, 2mA - Optical Fault, 4mA – Healthy, 18mA – Alarm, 21mA - Over-range
Compatible Approved control panel for alarm and trouble reporting.
Sensitivity settings: High, Standard, Low
FS301 Flame Simulator: not FM Approvals examined
Firmware version 1.04.
Fuels: see FDS303 Safety and Technical Manual, 3303.0001
Detection time: 5 sec.
Detection Distance: see below table
Field of view [vertical] 90.0°
Field of view [horizontal] 90°
False alarm stimuli: see FDS303 Safety and Technical Manual, 3303.0001

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Suitable for US as flameproof for use in Class I, Zone 1, AEx db IIC T4 Gb hazardous (classified) locations, indoors and outdoors Type 4X / IP66. Operating temperature range is -50°C to +85°C (-58°F to +185°F).

Specific Condition(s) of Use:
1. The FDS303 IR3 Multi Spectrum Flame Detector is to be installed in places where there is a low risk of mechanical damage.

Model CD-F-300

The CD-F-300 Visual Flame Detector is Approved for use at factory default settings for the US and Canada. The CD-F-300 detector operates from 18 to 32Vdc with firmware version 1.06. The detector dry contact Form C relay outputs connect to a compatible Approved control panel for alarm and trouble reporting. The CD-F-300 was tested for flame response with Methane, Ethanol, Heptane, Gasoline, JP4 Jet Fuel, and Silane. The CD-F-300 maximum flame detection distance was measured at 197ft. [60m] with a field of view of [vertical] 80.5° and [horizontal] 120°. Suitable as explosionproof for use in Class I, Division 1, Groups B, C and D; flameproof for use in Class I, Zone 1, Ex db IIC with a T4 temperature class rating in hazardous (classified) locations, indoors and outdoors Type 4X / IP66. Operating temperature range is -60°C to +85°C (-76°F to +185°F).

Model CD-F-301

The CD-F-301 Visual Flame Detector is Approved for use at factory default settings. The color imaging detector incorporates an integral CCTV camera. The CD-F-301 detector operates from 18 to 30Vdc with firmware version 1.18. The detector dry contact Form C relay outputs connect to a compatible Approved control panel for alarm and trouble reporting. Fuels tested for response are Methane, Ethanol, Heptane, Gasoline, JP4 Jet Fuel, and Silane. Suitable as explosionproof for use in Class I, Division 1, Groups B, C and D; flameproof for use in Class I, Zone 1, AEx db IIC with a T4 temperature class rating in hazardous (classified) locations, indoors and outdoors Type 4X / IP66. Operating temperature range is -60°C to +85°C (-76°F to +185°F).

➡Electrical Signaling ➡European Approval ➡Alarm Signal Initiating Devices ➡Fire Detection, Flame-Actuated

Model FDS303

The FDS303 IR3 Multi Spectrum Flame Detector is Approved for use:
Operating Voltage: 24Vdc [18 to 32Vdc]
Current draw: 0.42A [10W], with heater - 0.63A [15W]
Dry contact Form C relay outputs: 30Vdc, 2A
Operating temperature and humidity range is -60°C to +85°C (-76°F to +185°F), 93%
4-20mA Outputs: 0mA - Power/Detector Fault, 2mA - Optical Fault, 4mA – Healthy, 18mA – Alarm, 21mA - Over-range
Compatible Approved control panel for alarm and trouble reporting.
Sensitivity settings: High, Standard, Low
FS301 Flame Simulator: not FM Approvals examined
Firmware version 1.04.

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Detection time: 5 sec.
Detection Distance: see below table
Field of view [vertical] 90.0^0
Field of view [horizontal] 90^0
False alarm stimuli: see FDS303 Safety and Technical Manual, 3303.0001
Class 1 = high and standard sensitivity
Class 2 = low sensitivity
Certification Type: CPR ("CE")
CPR Certificate Number: 1725-CPR-E0007

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