

# 911674 IR-flame detector FMX5000 IR Ex












- ▶ For use in Ex zones 1, 2, 20, 21 and 22 (ATEX category 2 Gas/1, 2 Dust)
- ▶ High degree of immunity against false alarms, e.g. from hot surfaces or sunlight
- ▶ A microcontroller monitors the functionality and analyses the recorded data. Faults can be indicated on the detector or on a separate line
- ▶ Connection of remote indicator possible
- ▶ 3-channel optic test
- ▶ Service interface, history memory

Flame detectors are used to detect open flames indoor and outdoor. They respond to the light emitted from flames during combustion. Flame detectors are especially suitable for smokeless liquid and gas fires not visible for the naked eye as well as for fires of materials that contain carbon with strong smoke emission. Typical areas of application are large industrial warehouses, airplane hangars, chemical facilities, oil refineries, machine rooms, ferries and freight ships, power plants, printing plants, wood warehouses, subway tunnels. Intrinsically safe detectors (Ex i) are suitable for use in the following explosion hazard areas: Zone 1, 2, 20, 21 and 22.

### System overview

The following table lists the mandatory accessories required for each flame detector:

Application area	Flame detector	Accessories	
Standard	 Flame detector FMX 5000 IR F.01U.418.818	 Socket MX5000 VK F.01U.418.824	 Relay module KMX5000 RK VK F.01U.418.821

Ex zone 2, 22	 Flame detector FMX 5000 IR 3GD F.01U.418.819	 Socket MX5000 Ex VK F.01U.418.825	 Relay module KMX5000 RK 3GD VK F.01U.418.822
Ex zone 1, 2, 20, 21, 22	 Flame detector FMX 5000 IR Ex F.01U.418.820	 Socket MX5000 Ex VK F.01U.418.825	 Safety barrier Ex isol. 24V 2 channel F.01U.418.823

### Regulatory information

Region	Regulatory compliance/quality marks	
Europe	DoP	911674 IR-flame detector FMX5000 IR Ex
	CE	911674 IR-flame detector FMX5000 IR Ex
	CE	922689 Safety barrier Ex isol. 24V 2 channel

Region	Regulatory compliance/quality marks	
	Ex	BVS 12 ATEX E 088 911674 IR-flame detector FMX5000 IR Ex
	Ex	Baseefa09ATEX0027 922689 Safety barrier Ex isol. 24V 2 channel
Global	IECEX	BVS 12.0056 911674 IR-flame detector FMX5000 IR Ex
	IECEX	ITA 08.0009X 922689 Safety barrier Ex isol. 24V 2 channel
USA	FM	FM22US0084X 911674 IR-flame detector FMX5000 IR Ex
	FM	FM16US0173X 922689 Safety barrier Ex isol. 24V 2 channel
China	CCC	2016081801000222 911674 IR-flame detector FMX5000 IR Ex
Germany	VdS	G 209141 IR-flame detectors FMX5000 IR Ex, 3GD
Ukraine	DCS	UA.CRT.00174-21 IR flame detectors FMX5000 IR VK, Ex, 3GD

### Parts included

Quantity	Component
1	911674 IR flame detector FMX5000 IR Ex

For the operation of the flame detector, following accessories must be ordered:

- 922689 Safety barrier Ex isol. 24V 2 channel
- 924442 Socket MX5000 Ex VK

### Technical specifications

#### Electrical

Current consumption on conventional line (mA)	4.5 mA – 20.5 mA
Operating voltage (VDC)	7.6 VDC – 30 VDC

#### Mechanical

Dimensions (Ø x H) (cm)	100 cm x 50 cm
LED color	Red; Yellow
Material	Aluminum

Weight (g)	860 g
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#### Environmental

IP rating	IP66; IP67
Operating relative humidity, non-condensing (%)	95%
Operating temperature (°C)	-40 °C – 80 °C
Specification according to	EN 54 Part 10

#### Operation

Detection angle (°)	90°
LED indication	Multi-color
Optical indication	LED
Sensitivity class	Adjustable x (50 m) 1, 2, 3
Range	Class 1: 0.1 m <sup>2</sup> n-heptane at 25m Class 2: 0.1 m <sup>2</sup> n-heptane at 17m Class 3: 0.1 m <sup>2</sup> n-heptane at 12m

### Ordering information

#### 911674 IR-flame detector FMX5000 IR Ex

Triple IR flame detector for the detection of typical fires, for use in Ex zones  
Order number **911674**

#### Accessories

##### 904757 Bracket MX5000

Mounting bracket for the MX5000 VK and MX5000 Ex VK flame detector sockets  
Order number **904757**

##### 922689 Safety barrier Ex isol. 24V 2 channel

Safety barrier for the FMX5000 IR Ex flame detector  
Order number **922689**

##### 924442 Socket MX5000 Ex VK

Socket for the FMX5000 IR Ex and FMX5000 IR 3GD flame detectors  
Order number **924442**



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