

# 924420 IR-flame detector FMX5000 IR 3GD






- ▶ For use in Ex zones 2 and 22 (ATEX category 3 Gas/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
- ▶ Service interface, history memory
- ▶ Connection of remote indicator possible
- ▶ 3-channel optic test

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. Increased safe detectors (Ex e) are suitable for use in the following explosion hazard areas: Zone 2 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	IR flame detector FMX5000 IR 3GD
	CE	922420 IR-flame detector FMX5000 IR 3GD
	Ex	BVS 17 ATEX EX 003 922420 IR-flame detector FMX5000 IR 3GD

Region	Regulatory compliance/quality marks	
USA	FM	FM22US0083X 922420 IR-flame detector FMX5000 IR 3GD
Germany	VdS	G 217027 IR flame detectors FMX5000 IR VK, IR 3GD
	VdS	G 221020 Relay modules KMX5000 RK VK, KMX5000 RK 3GD VK
Ukraine	DCS	UA.CRT.00174-21 IR flame detectors FMX5000 IR VK, Ex, 3GD

### Parts included

Quantity	Component
1	924420 IR flame detector FMX5000 IR 3GD

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

- 926826 Relay module KMX5000 RK 3GD VK
- 924442 Socket MX5000 Ex VK

### Technical specifications

#### Electrical

Auxiliary current (mA)	21 mA – 53 mA
Operating voltage (VDC)	7.60 VDC – 30 VDC

#### Mechanical

Dimensions (Ø x H) (cm)	100 cm x 50 cm
LED color	Red; Yellow
Material	Aluminum
Weight (g)	820 g

#### Environmental

Operating temperature (°C)	-40 °C – 80 °C
Operating relative humidity, non-condensing (%)	95%
IP rating	IP66; IP67
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

#### 924420 IR-flame detector FMX5000 IR 3GD

Triple IR flame detector for the detection of typical fires, for use in Ex zones  
Order number **924420**

#### Accessories

##### 926826 Relay module KMX5000 RK 3GD VK

Relay module for the operation of the FMX5000 IR 3GD flame detector  
Order number **926826**

##### 924442 Socket MX5000 Ex VK

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

##### 904757 Bracket MX5000

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



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