

# 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         | <br>Flame detector FMX 5000 IR<br>F.01U.418.818 | <br>Socket MX5000 VK<br>F.01U.418.824 | <br>Relay module KMX5000 RK VK<br>F.01U.418.821 |

Ex zone 2, 22



Flame detector FMX 5000 IR 3GD  
F.1.01U.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 |
|------------|-------|

#### 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<br>Class 2: 0.1 m <sup>2</sup> n-heptane at 17m<br>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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