

## ▶ FS24X

### IR3 optical flame detector



#### Technical specifications

**Field of view:** 90° horizontal vision cone, 45° from axis

**Sensibility:** 4 levels switch selectable – very high (60 m), high (45 m), medium (30 m) and low (15 m)

**Response time:**

- 3 to 5 seconds to 0,1m<sup>2</sup> for n-heptane fire at 30 m
- 3 to 10 seconds to 0,1m<sup>2</sup> for n-heptane fire at 60 m

**Power supply:** 24 Vcc (18-32 Vcc) – regulated

**Analog output:** 0 to 20 mA stepped - sink or source

**Communication:** ModBus RS-485 or RS-485 FireBus II

**Output relays:**

- Fire alarm relay : Contacts NO and NC selectable
- Auxiliary relay : Contacts NO and NC selectable
- Fault relay : Contacts NO and NC selectable

**Visual indicators:** Green (power), red (alarm), yellow (fault)

**Housing:** NEMA4 Aluminium (IP66), tamper-resistant with NPT 3/4" openings (M25 optional). Stainless steel available

**Ingress protection:** IP66

**Mounting:** Swivel bracket assembly - optional

**Temperature range:** -40°C to 85°C

**Humidity range:** RH of 5 à 98 %

**Weight:** 1,8 kg (Aluminum) or 3,4 kg (Stainless steel)

**Certifications:**

- ATEX/IECEx : II 2 G Ex db IIC T4 (Ta : -40 à + 110 °C),
- FM: Class I, division 1 & 2, group B, C et D; Class II, Div. 1 & 2, group E, F & G; Class III
- CE : EN6100-6-4 and EN50130-4 INMETRO CU-TR compliant
- Classification SIL: FMEDA

#### Product description

The FS24X is an efficient and reliable IR3 optical flame detector combining three infrared sensors on different optical wavelengths, thereby increasing immunity to false alarms. It is suitable for both indoor and outdoor applications that require maximum false alarm rejection and the highest fire detection performance. The detector is available in aluminum or 316 stainless steel version for installation in the harshest environments.

##### ▶ The combination of 3 different IR sensors

Thanks to ultra-fast semiconductor IR quantum sensors, the FS24X flame detector is able to distinguish between flames and other light sources, being sensitive only to optical wavelengths and specific flame pulse frequencies. To generate an alarm, the 3 IR sensors will have to be energized, which avoids false alarms caused by factors such as sunlight fluctuations.

##### ▶ Two high performance microprocessors

Sophisticated software algorithms and two microprocessors provide the FS24X flame detector with the highest fire detection performance and optimal rejection of false alarms.

##### ▶ Range up to 60 meters

With a range greater than 60 meters in the "high sensitivity" setting, the FS24X flame detector is capable of detecting a 0.1 m<sup>2</sup> heptane reference fire in a few seconds. Its vision cone is, in terms of volumetric coverage, significantly higher than that of most IR3 detectors on the market.

##### ▶ PMain features

- Technology suitable for hydrogen, hydrocarbons (petrol, ethanol, methane), paper, wood fires and more
- Welding immunity and rejection of false alarms in all ambient conditions
- PC software and interface module for diagnosis, data & event logs downloading
- Visual indicators : Green (power), red (alarm), yellow (fault)
- ModBus RS-485 communication, analog output and relays

##### ▶ Application examples

Oil refineries and production facilities, offshore platforms, oil & gas pipelines and pumping stations, LNG / LPG loading & unloading, ethanol & methanol storage and production, paints or solvents storage.