FS24X
IR3 optical flame detector

INTRODUCTION

The triple IR (IR3) FS24X is the latest generation of high technology fire and flame detectors thanks to its software and its detection advanced technology. The WideBand IR™ Infrared technology using high-speed solid-state Quantum sensors allows detection of all types of fires, hydrocarbon and non-hydrocarbon, in all weather conditions.

- Visible sensor for optimum false alarm rejection
- Selectable detection sensitivities
- Field-of-View: 110° full 100% cone-of-vision
- FirePic™ – pre-fire event data storage
- Event log with date and time stamp
- RS-485 ModBus communication and non-Isolated 4-20 mA Analog output (sink or source)
- Alarm, Fault and Fire Verification relays
- Automatic optical path and electronic self-test
- Wide operating temperature range
- FM, ATEX, CE mark approvals; meets SIL 2 requirements

Examples of application:
Refineries and oil production facilities, Off-shore platforms, Oil and gas pipelines and pumping station, LNG/LPG loading and unloading facilities, Natural gas and CNG plants, Ethanol, Methanol, and IPA production and storage, Crude oil and gasoline storage and tank farms, Aircraft hangars, Paint and solvent storage, Chemical production, storage, and loading facilities.

TECHNICAL FEATURES

Field of view: 90° Full 100% cone of vision
Sensitivity: Very high, high, medium and low - switch selectable
Response time: 3-5 seconds to 0.1 m² n-Heptane fire at 30m - 3-10 seconds to 0.1 m² n-Heptane fire at 60 m
Operating voltage: 24 Vdc nominal (18-32 Vdc) – regulated
Output relays: Fire, fault and auxiliary alarm: SPDT, NO or NC
Analog output: 0 - 20 mA stepped - source or sink user selectable
Communication: One of the following - user selectable: RS-485 ModBus Protocol; FireBus II; HART
Visual indications:
- Blue LED: Power
- Red LED: Alarm
- Yellow LED: Fault
Conduit entries: Standard: Two M25 or two ¾” NPT
Enclosure materials: Copper-free powder coated aluminum or 316 stainless steel
Enclosure type: 4X, IP66 & NEMA 4
Certifications FM:
Class I, Div. 1 & 2, Groups B, C, & D
Class II, Div. 1 & 2, Groups E, F, & G
Class III
Certifications ATEX, IECEx II 2 GD:
- Gas: Ex d IIC T4(Ta: -40°C to + 110°C), T5 (Ta: -40°C to + 75°C), T6 (Ta: -40°C to +60°C) Gb
- Dust: Ex tb IIIC IP66 T 135°C Db complies with EN61000-6-4 and EN50130-4
SIL Rating: FMEDA meets IEC 61508 safety requirements

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