

▶ SharpEye

UV/IR, IR3 or IR4 flame detector



Technical specifications

SharpEye 40/40 optical flame detection

Housing: Stainless steel SS 316L

Vision cone:

- Model 40/40I & 40/40LB: 100° horizontal, 95° vertical
- Model 40/40M: 90° horizontal & vertical

Optical sensibility:

- Model 40/40I (IR3) & 40/40M (IR4): Up to 65m
- Model 40/40LB (UV/IR): Up to 15m

Autotest: Integrated test (Built-In-Test, BIT)

Heated window: For operation in difficult conditions (snow, ice, condensation)

Power supply: 24 V DC nominal (18 – 32 VDC)

Power consumption:

- Stand-by: max. 90 mA (110 mA with heated window)
- Alarm: max. 130 mA (160 mA with heated window)

Output signals: analog 0-20 mA (stepped) & HART

Output relays: SPST volt-free contacts rated 2A at 30Vdc

Communication: Modbus compatible

Certifications:

- ATEX & IECEx: Ex II 2GD
- Ex de IIB+H2 T5 (-55°C +75°C)
- FM / FMC / CSA: Class I Div1 Groups B,C&D
 Class II/III Div1, Groups E,F&G
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- SIL: SIL2 certified by TÜV (IEC61508)
- Marine: DNV and ABS type approval
- MED-B and MED-D approval (wheelmark), issued by DNV
- CE mark EMI/RFI protected to EN61326-3 and EN61000-6-3

Dimensions: 90 x 114 x 156 mm

Ingress protection: IP66 & IP67, NEMA 250 6P

Weight: 2.5 kg (+1 kg with tilt mount)

Operating temperature: from -50°C to +75°C

Product description

Based on the optical analysis technology, the **SharpEye 40/40** flame detector is sensitive to radiation emitted by flames and combustion products. Depending on the model, it can be equipped with one or more sensors, either UV or IR or a combination of both.

With an MTBF (average time between failures) of 150,000 hours, it quickly detects and reports all fuel and gas fires at very long distance with a response time of less than 5 seconds in the worst case.

▶ SharpEye 40/40I – IR3 flame detector

It is the most commonly used model in the petrochemical industry and oil platforms. This flame detector combines 3 infrared sensors for the detection of hydrocarbon fires up to 65 meters, while guaranteeing reliability and immunity. Marine certification.

▶ SharpEye 40/40LB – UV/IR flame detector

This detector combines a UV sensor and an IR sensor for detection of hydrocarbon (petrol, ethanol, diesel, methane), metal and hydrogen fires. Good resistance to sunlight, artificial light and radiation from welding operations.

▶ SharpEye 40/40M – IR4 flame detector

Combination of 4 infrared sensors for flame detection of most fires over distances of 5 to 65 meters maximum, with high immunity to false alarms. Version with the same characteristics as the IR3 with hydrogen detection in addition.

Performances

Combustibles	Fire size	40/40I IR3	40/40LB UV-IR	40/40M IR4
		in meter		
Essence	Fire 0,1 m2	65	45	65
Gasole		45	11	45
N-heptane		65	15	65
Kerosene		45	11	45
Ethanol		40	7,5	40
Methane		30	5	30
Isopropylic alcohol		40	7,5	40
Methane	Fire feather 50 cm high	30	5	30
Hydrogen		NA	5	30
GPL		30	5	30
Polypropylen	Fire 0,2 m2	5	5	5
Paper	Fire 0,1 m2	10	5	10