MULTI-SPECTRUM INFRARED FLAME DETECTOR

Omniguard® model 760 - Hydrocarbon only

The Omniguard® Model 760 multi-spectrum infrared flame detector is designed to detect unwanted fires, and output appropriate alarm information. In a breakthrough technological advance, the model 760 senses infrared radiation in five discreet infrared (IR^4) wavelengths for early fire detection for maximum protection of people, machinery, and facilities. The model 760 utilizes the patented Omniguard® Fire Event Algorithm for superior false alarm immunity.

Typical applications: turbine enclosures, generator rooms, munitions facilities, battery rooms, and gas cabinets.

The multi-spectrum sensor information, combined with the sophisticated algorithm, enables the model 760 the ability to quickly detect hydrocarbon fueled fires. The model 760 also features an automatic self test function to monitor the detector's ability to sense fires and report a fault condition when impaired. The self test feature also eliminates the need for any external test fixtures.

Specifications

Performance ratings
Responsive to hydrocarbon flames.

Third-party performance certified to detect:
Normal sensitivity
- 1 square foot gasoline fire at 75 feet in <1 second
- 1 square foot n-Heptane fire at 75 feet in <1 second
- 1 square foot gasoline fire at 100 feet in <1 second
- 1 square foot n-Heptane fire at 100 feet in <1 second

Long distance sensitivity
- 1 square foot gasoline fire at 200 feet in <1 second
- 1 square foot n-Heptane fire at 200 feet in <1 second
- 4 square foot JP-5 fire at 200 ft in <5 seconds

Environmental ratings
Rated:
Class I, Division 1, Groups B, C &D (explosion proof)
Class II, Division 1, Groups E, F & G (dust ignition proof)
TYPE 4X weatherproof, dust-tight, watertight

Copper-free aluminium conversion housing coated to MIL-C-5541C, Class 3 (white).

Key features

- Patented Fire Event Analysis (FEA) algorithm for superior false-alarm immunity
- Five year warranty
- Wide field of view (90°)
- User selectable sensitivies
- Advanced through-the-lens diagnostic self-test (no external test source required)
- Long range detection
- Self-contained, explosion-proof enclosure
- Field configurable relays and sensitivity
- State-of-the-art microprocessor control
- High intensity, localized indication of proper operation, fire or fault

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Specifications (continued)

Standard operating temperature range:
-40° to +85°C (-40° to +185°F)

Spectral response
Infrared peak sensitivities of 2.2 µm, 3.7 µm, 4.4 µm, and 5.8 µm.

Detector inputs

Inputs	
• nominal voltage	24 VDC (ripple voltage <240mV)
• range	20 to 30 VDC

Power consumption	
• standby	80 mA
• alarm	100 mA
• auto and manual test	160 mA

Detector outputs

Relay	
• relays (2)	fire, trouble, dry contacts, hermetically sealed
• rated	2 A at 28 VDC. User selects NO or NC
• fire relay	user selects latching or non-latching

Current loop (standard version): 0 to 20 mA output
- 20 mA = fire
- 16 mA = warning fire IR
- 5 mA = warning ref IR
- 3 mA = fire relay coil fault
- 2 mA = calibration not complete
- 1 mA = self-test fault
- 0 mA = current loop fault
- 4 mA = normal

MODBUS RS-485 serial I/O

Mechanical considerations

Weight	2,4 kg (5 lbs)
Height x width x depth	114 x 140 x 125 mm (4.5 x 5.5 x 4.9 in)
Conduit entry	3/4-14 NPTF or M20-1.5

Optional accessories

Swivel mount	No 4651027 (used with aluminium)
Portable test unit	Model 545
Rain shield	No 23546

Ordering information

To order, please specify

Type	Omniguard® model 760
Designation	Multi-spectrum infrared flame detector
Ordering number	760 - X X X O O

Fire type
1 Hydrocarbon

Housing material/conduit entry
0 aluminium, 3/4-14 NPT (white)
3 aluminium, M20-1.5 (white)

Test feature
1 auto self-test

Fire relay configuration

Agency approvals

CE

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