ULTRAVIOLET FLAME DETECTOR

Omniguard® model 660

The Omniguard® model 660 UV flame detector is designed to detect unwanted fires, and output appropriate alarm information. The model 660 senses ultraviolet radiation in the appropriate wavelength for extremely fast fire detection. The model 660 will sense both hydrocarbon and non-hydrocarbon fires, a technology which has proven itself over decades of reliable service.

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

The model 660 is available in two versions, one for standard industrial applications where a maximum operating temperature of 85°C is the norm, and a second which is capable of operating at a maximum sustained temperature of 125°C. This version is especially well suited for turbine enclosure and high temperature industrial applications. Both versions are available with an automatic self-test function to monitor the detector's ability to sense fires and report a fault condition when impaired.

Specifications

Performance ratings

Responsive to hydrocarbon (gasoline, propane, methane, alcohol, etc) and non-hydrocarbon (hydrogen, silane, hydrazine, magnesium, etc) flames.

Third-party performance certified to detect saturating signal source in 15 milliseconds, 1 square foot gasoline flame at 50 feet in 1 second. Horizontal performance envelope of 120°.

Environmental ratings

Rated:

Class I, Division 1, Groups B, C &D (explosion proof)
Class II, Division 1, Groups E, F & G (dust ignition proof)
NEMA 4X weatherproof, dust-tight, watertight
CE0081 Ex II 2 G/D
Ex d IIB + H_2 T5 Gb for gas on 660-0XXXX
Ex tb IIIC T100°C Db IP6X for dust on 660-0XXXX
Ex d IIB + H_2 T4 Gb for gas on 660-1XXXX
Ex tb IIIC T135°C Db IP6X for dust on 660-1XXXX

Standard housing is copper-free aluminium conversion coated to MIL-C-5541C, Class 3 (white). Optional stainless steel housing available with passive finish per MIL-5-5002C, Type 1.

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

Special high temperature version: -40° to +125°C (-40° to +257°F).

Key features

- Available in special high temperature version (-40°C to +125°C)
- All inclusive three-year warranty on parts and labor
- Widest field of view in the industry (120°)
- Robust, weatherproof enclosure for indoor or outdoor applications
- FM, CSA, IECEx and ATEX approved
- Improved, advanced through-the-lens diagnostic self-test
- Long range detection
- Self-contained, explosion-proof enclosure
- Economical no-test version available
- Field configurable relays and sensitivity
- State-of-the-art microprocessor control
- High intensity, localized indication of fire or fault

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Specifications (continued)

Spectral response
Ultraviolet peak sensitivity of 0,22 µm.

Detector inputs
Inputs

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

Power consumption

• standby	90 mA
• alarm	110 mA
• auto and manual test	250 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
• 4 mA = ready
• 0 mA = 20

Programmable RS-485 serial output

Mechanical considerations

Weight	2.4 kg (5 lbs) (aluminum) 6.3 kg (13 lbs) (stainless steel)
Height x width x depth	114 x 140 x 153 mm (4.5 x 5.5 x 6.0 in)
Conduit entry	3/4-14 NPTF or M20-1.5

Optional accessories

Swivel mount	No 20856 (used with aluminum) No 70991 (used with stainless steel)
Portable test unit	No 43808-2
Air shield assy kit	No 8001023
Rain shield	No 23546

Ordering information

To order, please specify

Type	Omniguard® model 660
Designation	Ultraviolet flame detector
Ordering number	660 - X X X O O

Fire type
0 Industrial temperature fire detector
1 High temperature fire detector

Housing material/conduit entry
0 aluminum, 3/4-14 NPT (white)
2 stainless steel, 3/4-14 NPT
3 aluminum, M20-1.5 (white)
5 stainless steel, M20-1.5

Test feature
0 no self-test
1 auto self-test

Fire relay configuration

Agency approvals
Factory Mutual (FM)
ATEX
Canadian Standards Association (CSA)
California State Fire Marshall (CSFM)
IECEx

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