

Context Plus

Addressable Fire Equipment Catalogue



OPTICAL SMOKE DETECTOR XPERT CARD ADDRESSED



Addressable Optical Smoke Detector
55000-685IMC

OPTICAL SMOKE DETECTOR, XPERT STYLE, 55000-685IMC

The Context Plus Addressable Optical Smoke Detector. Within the case is a printed circuit board which, on one side, has the light proof labyrinth chamber with integral gauze surrounding the optical measuring system and, on the other, the address capture, signal processing and communications electronics.

An infrared light emitting diode within its collimator is arranged at an obtuse angle to the photo-diode. The photo-diode has an integral daylight-blocking filter.

The IR LED emits a burst of collimated light every second. In clear air the photo-diode receives no light directly from the IR LED because of the angular arrangement and the dual mask. When smoke enters the chamber it scatters photons from the emitter IR LED onto the photo-diode in an amount related to the smoke characteristics and density.

DEVICE RESPONSE

Type: Overheating/thermal combustion
Response: Very good

Type: Smouldering/glowing combustion
Response: Good

Type: Flaming combustion
Response: Good

Type: Flaming with high heat output
Response: Good

Type: Flaming - clean burning
Response: Very poor

Technical Data

Specifications are typical and given at 23°C and 50% relative humidity unless stated.

Communication protocol: Apollo XP95 pulse 5-9V

Detector Type: Products of combustion (smoke) detector

Detection Principles: Photo-electric detection of light scattered in a forward direction by smoke particles

Chamber Configuration: Horizontal optical bench housing an infrared emitter and sensor arranged radially to detect scattered light

Sensor: Silicon PIN photo-diode

Emitter: GaAs Infra-red light emitting diode

Sampling Frequency: 1 second

Supply Wiring: Two wire supply, polarity insensitive

Terminal Functions:

L1&L2 supply in and out connections (polarity insensitive)

+R remote indicator positive connection (internal 2.2kΩ resistance to supply +ve)

-R remote indicator negative connection (internal 2.2kΩ resistance to supply -ve)

Supply Voltage: 17 to 28 Volts dc

Quiescent Current: 340µA

Power-up Surge Current: 1mA

Duration of Power-up Surge Current: 1 seconds

Maximum Power-up Time: 4 seconds for communications (measured from application of power and protocol) 10 seconds to exceed 10 counts 35 seconds for stable clean air value

Storage Temp: -30°C to +80°C

Operating Temp: -20°C to +60°C

Alarm Level Analogue Value: 55

Clean Air Analogue Value: 25±7 counts

Alarm Indicator: Clear lens Light Emitting Diode (LED)

Alarm LED Current: 4mA

Remote LED Current: 5mA maximum

Type Code: (210 43) 101 00

Sensitivity: Nominal threshold of 2.1% light grey smoke obscuration per metre

Guaranteed Temperature Range (No condensation or icing): -20°C to +60°C

Humidity (No condensation or icing): 0% to 95% relative humidity

Wind Speed: Unaffected by wind

Atmospheric Pressure: Unaffected

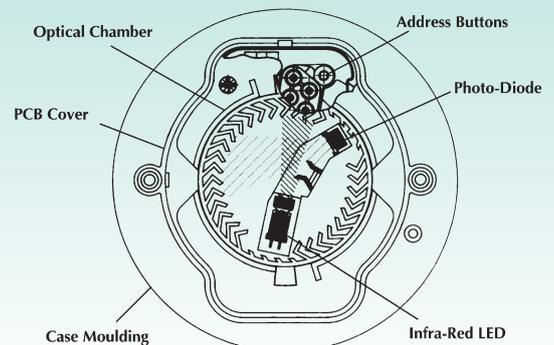
Vibration, Impact & Shock: To EN54 Pt 7 (BS5445 Pt 7)

IP Rating: 33

Dimensions: (diameter x height)
Detector: 100mm x 39mm
Detector in Base: 100mm x 47mm

Weights: Detector: 105g Detector in Base: 161g

Materials: Detector Housing: White polycarbonate V-0 rated to UL 94 Terminals: Stainless Steel



Top section view - Optical Smoke Detector

Context Plus

Other products in the Context Plus range



Conventional fire detection panels



Conventional smoke and heat detectors



HFC227ea
Conventional fire suppression systems



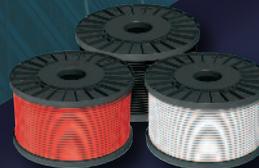
Conventional signalling devices



Conventional wireless fire alarm systems



Stand-alone mains & battery operated smoke, heat & CO alarms



Fire resistant cables



EN54 compliant power supplies

CONTEXT PLUS LIMITED

Newby Road, Hazel Grove Manchester SK7 5DA. England.

Tel: +44 161 257 2541. Fax: +44 161 225 8817.

E-mail: sales@contextplus.co.uk Website: www.contextplus.co.uk

MADE IN ENGLAND