Odyssey intelligent Multisensor Detector (200-505)

The Odyssey multisensor detector contains an optical smoke sensor and a thermistor temperature sensor whose outputs are combined to give the final analogue value. The multisensor construction is similar to that of the optical detector but uses a different lid and optical mouldings to accommodate the thermistor temperature sensor. The sectional view (Fig.15) shows the arrangement of the optical chamber and thermistor.

The signals from the optical smoke sensing element and the temperature sensor are independent, and represent the smoke level and the air temperature respectively in the vicinity of the detector. The detector's microcontroller processes the two signals. The temperature signal processing extracts only rate of rise information for combination with the optical signal. The detector will not respond to a slow temperature increase - even if the temperature reaches a high level. A large sudden change in temperature can, however, cause an alarm without the presence of smoke, if sustained for 20 seconds.

The processing algorithms in the multisensor incorporate drift compensation. The control panel must not have a drift compensation algorithm enabled. The sensitivity of the detector is considered the optimum for most general applications since it offers good response applications to both smouldering and flaming fires.

Note: in situ testing of the multisensor should be carried out as for smoke detectors.

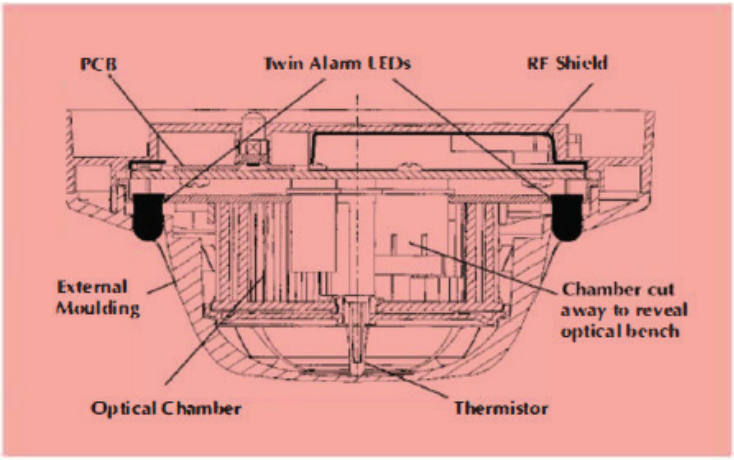

Fig.15 Sectional view - Multisensor Detector

TECHNICAL SPECIFICATION

Detector Type	Point Type Smoke Detetor
Detector Principle	Smoke: Photo-electric detection Heat: Tempearature-sensitive resistance
Sensor	Silicon PIN photo-diode
Supply Wiring	2 wire supply, polarity insensitive
Operating Voltage	17 to 28 Vdc
Quiescent Voltage	500 uA average, 750 uA peak
Power-up Surge Current	1 mA
Max power-up time	10 secs
Alarm LED Current	3.5 mA
Remote LED Current	4 mA at 5 V
Clean Air Analogue Valule	23 +4/ -0
Alarm Level Analogue Value	55
Alarm Indicator	2 colourless LEDs
Temp Range	-20 C to 60 C
Storage Temp	-30 C to 80 C
Humidity (non-condensing)	95% RH
Effect of temp on optical detector	Less than 15% change in sensitivity over rated range
Atmospheric Pressure	None
Wind Speed	None
IP Rating	23 D
Vibration, Impact & Shock	to EN54 - 5/7
Dimensions	100 mm x 50 mm
Weight	105 g
Materials	White polycarbonate housing

Eurotech Fire Systems Limited
19/20 Stratfield Park, Elettra Avenue, Waterlooville, Hampshire PO7 7XN UK

W: www.eurotechfire.com
E: info@eurotechfire.com
T: (+44) 020 3141 0999