



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.

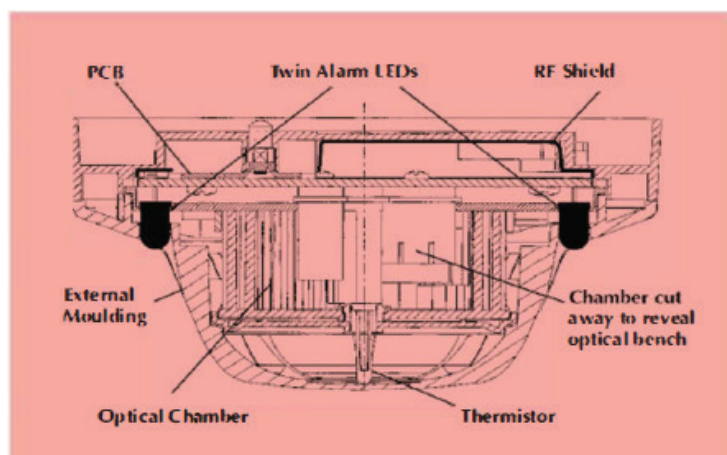


Fig.15 Sectional view - Multisensor Detector

TECHNICAL SPECIFICATION

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| 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 |