



Optical Smoke Detector

Conventional – Devices

Part No. C4416

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Product Details

The C4416 Optical Smoke Detector uses an infrared light source and a photodiode to detect smoke. In the absence of smoke, light passes in front of the photodiode in a straight line. When smoke enters the optical chamber across the path of the infrared beam, light is scattered by particles of smoke in all directions, some of which falls on the photodiode thus triggering the alarm.

Optical detectors are typically used in escape routes, living areas, bedrooms and enclosed spaces to give an early indication of fire. They are particularly effective at detecting slow burning fires (such as those caused by overheated electrical wiring or smouldering materials) which tend to generate larger particles of visible smoke.



Key Features

- A high-quality optical smoke detector offering outstanding detection performance at a very competitive price.
- Manufactured by C-TEC in the UK.
- Third-party certified to EN54-7 by Intertek.
- Wide 6-33V DC operating voltage.
- Two 8mm x 2mm ultra-bright red LED indicating strips offering 360° visibility.
- Drift compensation functionality ensures detector sensitivity is automatically calibrated to suit prevailing conditions and/or increased contamination levels allowing a greater than 8 year life-span.
- Compatible with our ActiV C4408D diode, C4408 non-diode and C4408R relay bases

Technical Specifications

Approvals/certifications	Certified to EN54-7 by Intertek.
Application temperature	n/a
Static response temperature	n/a
Sensitivity	Nominal alarm threshold of 0.16db/m obscuration measured in accordance with EN54-7:2000.
Supply wiring	2-wire monitored, polarity sensitive
Supply/operating voltage	9 to 33V DC.
Quiescent current	30µA @ 24 VDC.
Alarm voltage	6-33V DC.
Alarm current	19mA @ 12-33V DC; 11mA @ 9V DC; 2.5mA @ 6V DC.
Alarm reset voltage	Less than 1V DC (+0.5 seconds alarm reset time)
Expansion connections	Remote LED output available via ActiV base. Current source to the negative line, short-circuit protected. Max voltage 2.7V DC
Product dimensions (mm)	102.2mm diameter x 37mm deep (detector in base); 102.2mm diameter x 57.5mm deep.
Construction & finish	White polycarbonate casing rated to UL94 V-2 with nylon parts.
Weight	99g