



C4414

Multi-Sensor Fire Detector

ActiV

Manufactured in the UK by C-TEC, our ActiV C4414 combined optical + heat multi-sensor fire detector offers outstanding detection performance at a very competitive price.

Suitable for use with virtually all known conventional fire alarm panels including C-TEC's market-leading CFP, FP, MFP and EP203 ranges, the C4414 is third-party certified to EN54 parts 5, 7 and prEN54-29 by leading independent certification body, Intertek, and also carries the prestigious pan-European recognised 'CertAlarm' System 5 mark.

Stylishly designed and easy-to-install, the IP42 rated detector has a wide 6-33V DC operating voltage and includes dual LED alarm indicating strips offering unrivalled 360° visibility and drift compensation to help reduce false alarms.

The C4414 is fully compatible with our C4408 range of ActiV bases, all of which include an integrated detector/base locking mechanism to prevent tampering. A plastic ID tag is also supplied with all C4408 range bases allowing engineers to identify which zone the detector has been connected to.

Illustration shows a C4414 ActiV multi-sensor mounted on a C4408D base



Intertek



0359-CPD-0183

Key features

- ▶ Third-party certified to EN54-5 by leading notified approval body Intertek
- ▶ Carries the prestigious 'CertAlarm' System 5 mark
- ▶ Outstanding detection performance and durability
- ▶ Wide 6-33V DC operating voltage
- ▶ Two 8mm x 2mm ultra-bright red LED indicating strips offering unrivalled 360° visibility when illuminated
- ▶ IP42 rated
- ▶ Suitable for use with virtually all known conventional fire alarm panels (see over for required alarm currents) and many 12V security systems
- ▶ Low current draw - just 30µA quiescent at 24V
- ▶ Sophisticated onboard detection algorithms help reduce false alarms by rejecting momentary abnormal readings
- ▶ Drift compensation functionality ensures detector sensitivity is automatically calibrated to suit prevailing conditions and/or increased contamination levels
- ▶ Stylishly manufactured from white polycarbonate
- ▶ Compatible with our ActiV C4408D diode base or C4408 non-diode base (all bases include an integrated detector/base locking mechanism and ID tag)
- ▶ Simple 'click and twist' design and easy-fit base ensures reduced installation time and inspection costs
- ▶ Manufactured at C-TEC's Intertek, LPCB, VdS and BSI inspected headquarters in the north west of England
- ▶ Optical, fixed temperature heat and rate-of-rise heat variants also available (see our separate datasheets for details)
- ▶ Excellent discounts for quantity orders



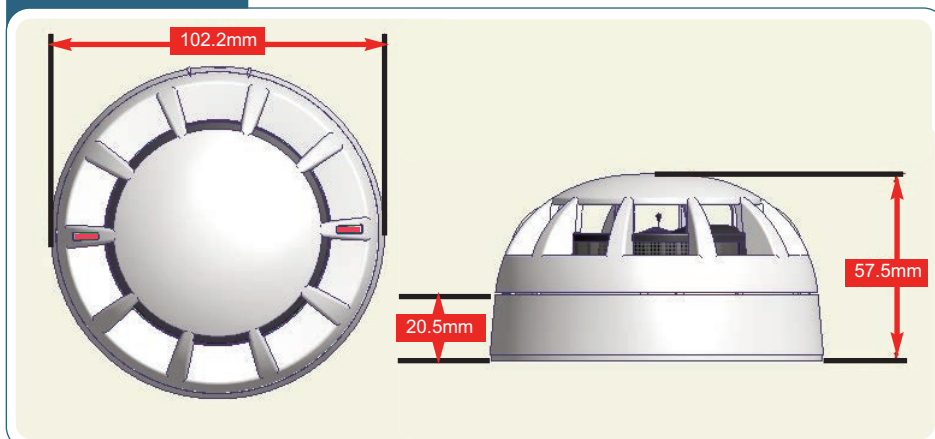
Application / Operation

Multi-sensor fire detectors incorporate two sensors, one for smoke and one for heat. As well as operating independently, the signals from the two sensors combine to produce a more sensitive response to freely burning fires. For example, when the detector's heat sensor detects an increase in temperature, it reduces the level at which its smoke sensor will respond. This smoke + heat analysis means that the detector not only provides excellent detection across the widest range of fire types, but also provides very effective false alarm reduction. As a result, the multi-sensor is the most effective all round detector. It is particularly useful in accommodation areas such as student premises, HMOs, sheltered housing blocks, etc., which are much more susceptible to nuisance alarms.

Technical Data

Part number:	C4414	Humidity:	0% to 95% relative humidity
Description:	Optical + Heat Multi-Sensor	Atmospheric pressure:	Insensitive to atmospheric pressure
Sampling frequency:	Once per second	IP Rating:	IP42
Supply wiring:	2-wire monitored, polarity sensitive	Dimensions (detector only):	102.2mm diameter, 37mm deep
Supply/operating voltage:	9 to 33V DC	Dimensions (detector in base):	102.2mm diameter, 57.5mm deep
Quiescent current:	30µA at 24V DC	Weight:	Detector: 99g. Base: 55g
Switch on surge current:	120µA for three seconds	Detector materials:	White polycarbonate outer casing rated to UL94 V-2 with nylon internal parts
Alarm voltage:	6 to 33V DC	Base materials:	White polycarbonate rated to UL94 V-2 with bright tin plated steel terminals fitted with nickel plated steel screws/washers
Alarm current:	19mA @ 12-33V DC 11mA @ 9V DC 2.5mA @ 6V DC	Compliance:	<ul style="list-style-type: none"> • EN 54-7:2000 + A1:2002 + A2:2006 (Fire detection & fire alarm systems. Smoke detectors - Point detectors using scattered light, transmitted light or ionization) • EN54-5:2000 + A1:2002 (Fire detection & fire alarm systems. Heat detectors - Point detectors). • Also tested to prEN54-29 (Fire detection and fire alarm systems. Multi-sensor fire detectors - Point detectors using a combination of smoke and heat sensors)
Min. holding voltage:	6V DC	Certifications & approvals:	Third-party certified to EN54-5 & 7 by notified approval body Intertek. The C4414 also carries the pan-European recognised CertAlarm System 5 mark. The approval certificate can be viewed at www.c-tec.co.uk
Min. alarm holding current:	2.5mA	Compatible Bases:	C4408D Diode Base C4408 Non-Diode Base
Alarm indicators:	Two 8 x 2mm LEDs (illuminate red)		
Voltage req. to light LED:	6V DC min		
Alarm reset voltage:	<1V DC		
Alarm reset time:	>0.5 seconds		
Remote output:	Current source to the negative line, short-circuit protected (available via a C4408D or C4408 base). Max voltage 2.7V DC (the alarm current flows in the remote LED circuit)		
Max. application temp:	50°C (heat element)		
Max. static response temp:	65°C (heat element)		
Sensitivity:	Nominal alarm threshold of 0.16dB/m obscuration measured in accordance with EN54-5:2000 (optical element)		
Temperature range:	-20° to +70°C		

Dimensions



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You're safe with C-TEC

