

# CAST Programmable Multi-Sensor Fire Detector

#### Part No. CA414



## **Overview**

A high-quality programmablemulti-sensor fire detector for use with C-TEC's XFP&ZFP 'CAST' protocol Addressable Fire Panels.

Certified to EN54-5, 7 &17 and CEA 4021 by the LPCB.

Onboard programmable heat &smoke sensors make it deal for detecting a wide range of fires whilst also reducing false alarms.

Multiple sensitivity/sensor settings (see Operating Modes for details).

Smart algorithms help reduce false alarms.

Drift compensation functionality.

Short circuit loop isolator.

Includes two 8mm x 2mm ultra-bright red LED indicating strips.

Different sensitivities can be selected for different times of the day (day/night, building occupied/unoccupied etc).

Programmable multi-function status LED.

Compatible with C-TEC's CA408 CAST base c/w integrated locking mechanism & ID tag.

#### **More Information**

CAST' is the world's most-advanced 'distributed intelligence' fire alarm system protocol. Conceived, designed and realised by C-TEC as part of a fiveyear, multi-million pound project, it involved the creation of a powerful proprietary communication protocol (C-TEC Addressable System Technology, CAST) and multiple control panels & field devices. Key features include:

255 devices per loop.

Autonomous decision-making for faster response times.

Multiple type codes

40V loop drive voltage.

Two 'soft' addressing options - automatic via the panel or manual via a powerful handheld programmer.

Powerful multi-level addressing facilitates easy device addition and swapped device identification.

Multiple functionality at a single address (integrated devices) - due 2020.



T 01942 322744

E sales@c-tec.co.uk

W www.c-tec.com



















Volumes, tones & detector modes can be changed at compatible panels.

High-speed data transmission and robust data transfer.

Intrinsically EN54-13 compliant.

Provides geographical location of short and open circuit faults (a short circuit isolator is included as standard in every CAST field device).

Replace device function.

Programmable multi-function status LED.

Future seamless integration with other CAST life safety systems reducing energy, servicing, installation and repair costs.

Designed and manufactured in the UK.

## **Technical Specifications**

Approvals/certifications Certified to EN54-5, 7 & 17 and CEA 4021 by the LPCB.

Compatible with C-TEC's XFP/ZFP CAST Protocol Addressable Fire Panels. Compatibility

Muti-Sensor. Type

Application/operation As well as operating independently, the CA414's smoke & heat sensors combine to produce a

sensitive response to freely burning fires, e.g. when a rise in heat is detected, its smoke response

level reduces for improved detection and reduced false alarms.

Application temperature  $25^{\circ}$ C typical,  $50^{\circ}$ C max (in Class A1R and Class A2 mode);  $40^{\circ}$ C typical,  $65^{\circ}$ C max (in Class B mode). In

A1R mode the detector will also trigger if it detects a sudden rise in temperature.

54°C min, 65°C max (In Class A1R and Class A2 mode); 69°C typical, 85°C max (in Class B mode). Static response temperature

Sensitivity Option to set 5 different sensitvity levels at the fire panel. See Operation Modes tab below for details.

Supply wiring 2-wire, polarity sensitive.

27 to 40V DC Supply/operating voltage 370µA @ 35V DC. Quiescent current

5mA (LEDs illuminated). Alarm current

2 LED indicator strips emitting red light when in alarm offering 360° visibility. Optional remote LED. Indicators

Via CA408 base: 1 +Ve IN (analogue swich); 2 +Ve OUT (analogue switch); 3 Remote LED +Ve; 4 OV; 5 Connections

OV: 6 Screen: 7 Screen.

Product dimensions (mm) 102.2mm diameter x 37mm deep (detector only); 102.2mm diameter x 57.5mm deep (detector in

Construction & finish White polycarbonate casing rated to UL94 V-2 with nylon parts.

IP Rating IP42.

99q (not in base); 154q (in base). Weight

Operating conditions/temperature -20°C to +85°C.

Requires a CA408 CAST base. CA408R relay base also available. Notes



































