

CAST Programmable Multi-Sensor Fire Detector

Part No. **CA414**



Overview

A high-quality programmable multi-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 five-year, 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.



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.
Compatibility	Compatible with C-TEC's XFP/ZFP CAST Protocol Addressable Fire Panels.
Type	Muti-Sensor.
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°C typical, 50°C max (in Class A1R and Class A2 mode); 40°C typical, 65°C max (in Class B mode). In A1R mode the detector will also trigger if it detects a sudden rise in temperature.
Static response temperature	54°C min, 65°C max (in Class A1R and Class A2 mode); 69°C typical, 85°C max (in Class B mode).
Sensitivity	Option to set 5 different sensitivity levels at the fire panel. See Operation Modes tab below for details.
Supply wiring	2-wire, polarity sensitive.
Supply/operating voltage	27 to 40V DC.
Quiescent current	370µA @ 35V DC.
Alarm current	5mA (LEDs illuminated).
Indicators	2 LED indicator strips emitting red light when in alarm offering 360° visibility. Optional remote LED.
Connections	Via CA408 base: 1 +Ve IN (analogue switch); 2 +Ve OUT (analogue switch); 3 Remote LED +Ve; 4 0V; 5 0V; 6 Screen; 7 Screen.
Product dimensions (mm)	102.2mm diameter x 37mm deep (detector only); 102.2mm diameter x 57.5mm deep (detector in base).
Construction & finish	White polycarbonate casing rated to UL94 V-2 with nylon parts.
IP Rating	IP42.
Weight	99g (not in base); 154g (in base).
Operating conditions/temperature	-20°C to +85°C.
Notes	Requires a CA408 CAST base. CA408R relay base also available.



T 01942 322744 E sales@c-tec.co.uk

F 01942 829867 W www.c-tec.com



C-TEC, Challenge Way, Martland Park, Wigan, WN5 0LD United Kingdom



T 01942 322744 E sales@c-tec.co.uk
F 01942 829867 W www.c-tec.com



C-TEC, Challenge Way, Martland Park, Wigan, WN5 0LD United Kingdom