



# CA402 Programmable Heat Detector

## Product Datasheet CAST Compatible

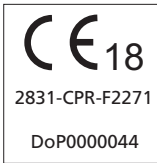


Illustration shows a CA402 CAST heat detector mounted on a CA408 base. The heat detector has a red colour coded ring.

### Product Description

The CA402 CAST programmable heat detector offers fixed temperature, or rate-of-rise temperature detection. The detector is compatible with C-TEC's XFP and ZFP range of 'CAST' protocol analogue addressable fire panels and is fully compliant with EN 54-5 and EN 54-17:2005.

The detector must be fitted to either a CA408 CAST detector base (which has an integrated locking mechanism to prevent tampering), or a CAST Base Mount device (Part Nos. CA431A/W, CA432A/W, CA456A/W, CA459A/W, CA460A/W). Refer to CA408 Document No. DFU0002408 for detector wiring and fitting details.

Part Number	Description
CA402	CAST Programmable Heat Detector
CA408	CAST Detector Base

### Key Features

- Third-party certified to EN 54-5 & EN 54-17
- Compatible with C-TEC's XFP and ZFP range of 'CAST' protocol fire panels
- Can be set to any one of three heat settings (Class A1R, Class A2 and Class B) using the fire panel's PC programming tools
- 22-40 Vdc operating voltage
- Onboard short-circuit loop isolator
- Two ultra-bright red LED indicating strips
- Manufactured from white polycarbonate
- Simple 'click and twist' design and easy-fit base ensures reduced installation time
- Compatible with C-TEC's CA408 CAST base and CAST Base Mount devices
- Optical smoke and multisensor variants are also available (see separate datasheets for details)

### Operation/Application

There are two main types of heat detector – 'fixed temperature' and 'rate-of-rise'. A 'fixed temperature' heat detector generates an alarm condition if the temperature within the protected area reaches a pre-determined level, whereas a 'rate-of-rise' heat detector generates an alarm condition if it detects a sudden rise in temperature but also has a fixed pre-determined level at which it will trigger.

Heat detectors are typically used in environments where rapid fire may occur and where smoke detectors cannot be installed, e.g. in areas susceptible to fumes, airborne materials and smoke such as in kitchens, loading bays, etc.

DO NOT position the detector in the direct path of hot or cold air flow.

### Technical Specification

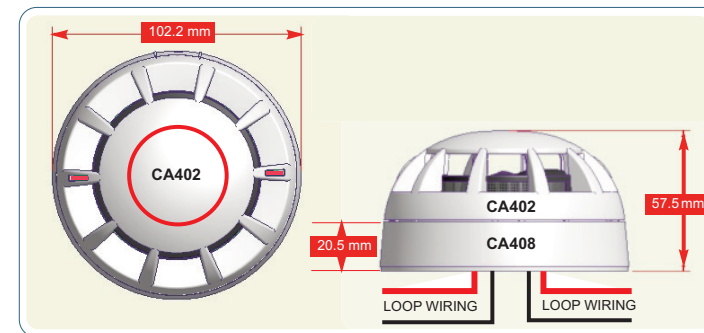
Part Number:	CA402
Description:	Programmable Heat Detector
Certifications:	EN54-5:2000 + A1:2002, EN54-17:2005 The approval certificate can be viewed at <a href="http://www.c-tec.com">www.c-tec.com</a>
LPCB Certificate No.:	176n/01
CPR Certificate No.:	2831-CPR-F2271
Declaration of Performance (DoP):	DoP0000044
Communication Protocol:	CAST (C-TEC)
Compatible Panels:	XFP or ZFP (CAST versions)
Compatible Bases:	CA408 CAST detector base and CAST Base Mount devices (Part Nos. CA431A/W, CA432A/W, CA456A/W, CA459A/W, CA460A/W)
Operation Modes (Modes programmed via XFP/ZFP PC Tools):	Mode 1 = Class A1R (rate-of-rise) Mode 2 = Class A2 (fixed temperature) Mode 3 = Class B (fixed temperature) (Default is Mode 2)
Heat Triggers:	Mode 1 = 56°C Mode 2 = 62°C Mode 3 = 74°C

Sampling Frequency:	Once per second
Operating Voltage:	22 to 40 Vdc
Quiescent Current:	370 µA at 40 Vdc
Alarm Current:	5 mA (LEDs illuminated)
LED Indicators:	Two red LED indicator strips offering 360° visibility
Wiring & Connections:	Via CA408 CAST base (see Document No. DFU0002408)
Detector Materials:	Robust white polycarbonate outer casing rated to UL94 V-2 with nylon internal parts
Dimensions (detector only):	102.2 mm diameter; 37 mm deep.
Dimensions (detector & base):	102.2 mm diameter; 57.5 mm deep.
Weight:	Detector 99 g; CA408 Base 55 g.
Atmospheric Pressure:	Insensitive to atmospheric pressure
Operating Temp.:	-10°C to +55°C
Humidity:	0% to 95% relative humidity

### EN 54-17 SC-Isolator Specification (Controllable Isolator)

Maximum Loop Voltage (V max):	40 Vdc
Nominal Loop Voltage (V nom):	40 Vdc
Minimum Loop Voltage (V min):	22 Vdc
Maximum Current Device Isolates, switches from closed to open (I <sub>so</sub> max):	55 mA
Minimum Current Device Isolates, switches from closed to open (I <sub>so</sub> min):	15 mA
Maximum Rated Continuous Current with switch closed (I <sub>c</sub> max):	1 A
Maximum Rated Switching Current under short circuit conditions (I <sub>s</sub> max):	1.6 A
Maximum Leakage Current with switch open (I <sub>L</sub> max):	20 µA
Maximum Series Impedance with switch closed (Z <sub>c</sub> max):	100 mohms

### Dimensions (CA402 Head & CA408 Base)



Manufacturer: Computationics Limited (C-TEC), Challenge Way, Martland Park, Wigan, Lancashire WN5 0LD. [www.c-tec.com](http://www.c-tec.com)  
E&OE. No responsibility can be accepted by the manufacturer or distributors of these devices for any misinterpretation of this instruction, or for the compliance of the system as a whole. The manufacturers policy is one of continuous improvement and we reserve the right to make changes to product specifications at our discretion and without prior notice.