



CA414/CON Multisensor Fire Detector

Product Datasheet CAST Compatible

Product Description

The Context Plus CA414/CON CAST multisensor fire detector offers optical fire sensitivity with heat enhancement. The detector is compatible with Context Plus's XFP and ZFP range of 'CAST' protocol analogue addressable fire panels and is fully compliant with EN 54-5, EN 54-7, EN 54-17 and CEA 4021.

The detector must be fitted to either a CA408/CON CAST detector base (which has an integrated locking mechanism to prevent tampering), or a CAST Base Mount device.

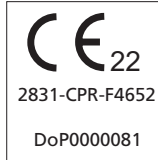


Illustration shows a CA414/CON CAST multisensor detector mounted on a CA408/CON base. The multisensor has a blue colour coded ring.

Part Number	Description
CA414/CON	CAST Multisensor Fire Detector
CA408/CON	CAST Detector Base

Key Features

- Third-party certified to EN54-5, EN 54-7 & EN 54-17
- Compatible with Context Plus's XFP and ZFP range of 'CAST' protocol fire panels
- Can be set to various modes of optical sensitivities and heat settings 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 Context Plus's CA408/CON CAST base and CAST Base Mount devices
- Programmable heat and optical smoke variants are also available (see separate datasheets for details)

Operation/Application

Multisensor 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 multisensor 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 Specification

Part Number:	CA414/CON
Description:	Multisensor Fire Detector
Certifications:	EN54-5:2017 + A1:2018, EN54-7:2018, EN54-17:2005, CEA 4021:2003. The approval certificate can be viewed at Context Plus's website.
LPCB Certificate No.:	176m/01
CPR Certificate No.:	2831-CPR-F4652
Declaration of Performance (DoP):	DoP0000081
Comm Protocol:	CAST
Compatible Panels:	XFP or ZFP (Context Plus CAST versions)
Compatible Bases:	CA408/CON CAST detector base and CAST Base Mount devices
Operation Modes (Modes programmed via XFP/ZFP PC Tools):	Mode 1 = High Optical + Class A2 Heat Mode 2 = Standard Optical Mode 3 = Standard Optical + Class A2 Heat Mode 4 = Low Optical + Class A2 Heat Mode 5 = Class A1R Heat * (Default is Mode 3)
Optical Triggers:	Mode 1 = 0.1 dB/m Modes 2 & 3 = 0.2 dB/m Mode 4 = 0.3 dB/m Mode 5 = Off
Heat Triggers:	Mode 1 = 62°C Mode 2 = Off Modes 3 & 4 = 62°C Mode 5 = 56°C

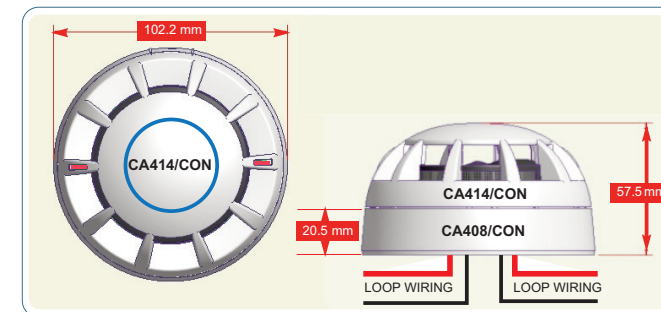
Sampling Frequency:	Once per second
Operating Voltage:	22 to 40 Vdc
Quiescent Current:	370 µA at 40 Vdc
Alarm Current:	5 mA (LEDs illuminated)
LED Indicators:	Two red LED indicator strips offering 360° visibility
Wiring & Connections:	Via CA408/CON CAST base
Detector Materials:	Robust white polycarbonate 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; Base 55 g.
Atmospheric Pressure:	Insensitive to atmospheric pressure
Operating Temp.:	-10°C to +55°C
Humidity:	0% to 95% relative humidity

* Mode Not Approved

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 (Iso max):	55 mA
Minimum Current Device Isolates, switches from closed to open (Iso min):	15 mA
Maximum Rated Continuous Current with switch closed (Ic max):	1 A
Maximum Rated Switching Current under short circuit conditions (Is max):	1.6 A
Maximum Leakage Current with switch open (IL max):	20 µA
Maximum Series Impedance with switch closed (Zc max)	100 mohms

Dimensions (CA414/CON Head & CA408/CON Base)



Context Plus Limited, Progress House, Newby Industrial Estate, Newby Road, Hazel Grove, Stockport, SK7 5DA, United Kingdom. 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 manufacturer's policy is one of continuous improvement and we reserve the right to make changes to product specifications at our discretion and without prior notice.