HP414
Multisensor Fire Detector

Product Datasheet
Hush-Pro

Product Description

The HP414 Hush-Pro multisensor fire detector offers optical fire sensitivity with heat enhancement. The detector is compatible with C-TEC's HP508 Hush-Pro BS5839-6 Grade C controller and is compliant with EN 54-5, EN 54-7, EN 54-17 and CEA 4021.

Note: When used with the Hush-Pro controller the detector may not be compliant with EN54-5/7 due to the false alarm reduction feature of the controller (the HUSH-Pro controller automatically resets the detector at FL1 when the detector is no longer activated).

The detector must be fitted to either a HP408 Hush-Pro detector base (which has an integrated locking mechanism to prevent tampering), or a Hush-Pro Base Mount device (Part Nos. HP431A/W, HP456A/W).
Refer to HP408 Document No. DFU0002418 for detector wiring and fitting details.

LPCB 176m/01

CE 19 2831

UKCA 21 0832

Part Number	Description
HP414	Hush-Pro Multisensor Fire Detector
HP408	Hush-Pro Detector Base

Illustration shows a HP414 Hush-Pro multisensor detector mounted on a HP408 base. The multisensor has a blue colour coded ring.

Key Features

- Third-party certified to EN54-5, EN 54-7 & EN 54-17
- Compatible with C-TEC's Hush-Pro fire alarm system
- Onboard A2 heat & optical 0.2dB/m smoke sensors
- 22-40 Vdc operating voltage
- Onboard short-circuit 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 HP408 Hush-Pro base and Hush-Pro Base Mount devices
- 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

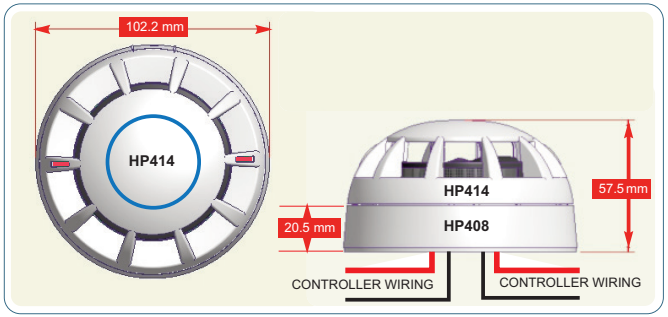
Part Number:	**HP414**
Description:	Multisensor Fire Detector
Certifications:	EN54-5:2017 + A1:2018, EN54-7:2018, EN54-17:2005, CEA 4021:2003. The approval certificate can be viewed at www.c-tec.com
LPCB Certificate No.:	176m/01
CPR Certificate No.:	2831-CPR-F2270
UKCA Certificate No.:	0832-UKCA-CPR-F0797
Declaration of Performance (DoP):	DoP0000044
Comm Protocol:	Hush-Pro (C-TEC)
Compatible System:	Hush-Pro
Compatible Bases:	HP408 Hush-Pro detector base and Hush-Pro Base Mount devices (Part Nos. HP431A/W, HP456A/W)
Operation Mode:	Standard Optical + Category A2 Heat
Optical Trigger:	0.2 dB/m
Heat Trigger:	60°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 HP408 Hush-Pro base (see Document No. DFU0002418)
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; HP408 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 Voltage (*V* max):	40 Vdc
Nominal Voltage (*V* nom):	40 Vdc
Minimum 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 (HP414 Head & HP408 Base)



Manufacturer: Computionics Limited (C-TEC), Challenge Way, Martland Park, Wigan, Lancashire WN5 0LD. www.c-tec.com

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