

Series C120 Smoke & Heat Detectors



C-TEC's new C120 Series of smoke and heat detectors are one of the most reliable and aesthetically-pleasing ranges on the market. By utilising the very latest technological advancements, a comprehensive range of high quality and robust fire detectors has been produced. The range includes three heat detectors (the BF302N1H Fast Response, the BF302NEH Fixed Temperature and the BF303NEH Rate of Rise) and two smoke detectors (the BF316NH Optical and the BF317NH Ionisation), all of which are compatible with the BF308N base. All detectors comply with the relevant EN54 and BS5445 standards.

- **Attractively designed** - all detectors are elegantly shaped to blend unobtrusively into modern working environments.
- **LED indication on sensor head** - ultra-bright LED provides high visibility of alarm conditions.
- **Simple plug-in installation** - BF308N base ideal for most applications (A 12V relay base - the BF302N12VR - is available for use with 12VDC security panels).
- **Tamper resistant** - head/base locking facility ensures detectors cannot be removed without the use of an allenkey.
- **Remote LED capability** - facilitates connection to BF318 remote indicator.
- **Low current draw** - standby current only 40uA on BF316NH & BF317NH Smoke Detectors and 30uA on BF302N1H Heat Detector.
- **Easy to clean** - heads can be disassembled for routine maintenance.



BF302N1H FAST RESPONSE HEAT DETECTOR



The BF302N1H heat detector is a fast response 58°C heat detector designed for use in conventional fire detection systems. The detector utilises a thermistor of low thermal mass as its sensing element to give a fast response. Tested and approved to BS 5445/EN54 part 5, the detector operates on the principle of a fixed threshold only. Unobtrusive and attractive in appearance, the detector's fast response makes it generally suitable for areas where combined rate-of-rise heat detectors would normally be required. A very low monitoring current is used and a red fire LED indicator which latches in an alarm condition is incorporated. A transistor switching facility is provided for triggering the BF318 remote LED indicator.

SPECIFICATION

Nominal Alarm Temp: 58°C.

Supply Voltage: 24V dc nominal (range 16 - 30V dc).

Voltage Ripple: 20% maximum.

Alarm Voltage: 6V between L and C terminals.

Monitoring Current: 20µA (typ) @ 24V d.c. @ 25°C.

Alarm Current: 65mA maximum at 25°C.

Ambient Temperature Range: 0°C to +50°C

Weight: 115g (Head only).

Approvals: LPCB certified.

BF302NEH FIXED TEMPERATURE HEAT DETECTOR



The BF302NEH fixed temperature heat detector incorporates a self-resetting bimetallic disk element with response indicator. It activates whenever the ambient air temperature reaches the top temperature setting of 70°C. The BF302NEH is generally suitable for areas such as boiler houses where temperatures rise too quickly for the reliability of rate of rise detectors. A red fire LED indicator is included and the detector is suitable for use with the BF318 remote LED indicator.

SPECIFICATION

Nominal Alarm Temp: 70°C.

Operating Voltage: 10-30V dc.

Alarm Rating: 30V dc @ 50mA

Weight: 150g (Head only).

BF303NEH RATE OF RISE HEAT DETECTOR



Operation of the BF303NEH rate of rise heat detector is based on expansion of air within the sensing chamber which has a calibrated bleed hole. A steep temperature gradient will cause rapid expansion of air inside the chamber which the bleed hole is unable to accommodate. This causes an electrical contact to be made sending the detector into alarm. The detector is generally suitable for use in areas such as public houses, waiting rooms, etc, where too much smoke is generated for the reliability of other detectors. A red fire LED indicator is included and the detector is suitable for use with the BF318 remote LED indicator.

SPECIFICATION

Operating Voltage: 10-30V dc.

Alarm Rating: 30V dc @ 50mA

Weight: 200g (Head only).

BF316NH OPTICAL SMOKE DETECTOR



The BF316NH optical smoke detector utilises the light scatter sensing principle to detect and measure the presence of smoke. The LED pulses every 8 seconds to maintain a low monitoring current and to ensure a quick charge time of just 30 seconds. The detector incorporates an alarm verification function which requires two successive pulses before an alarm is given. (The interval between the first and second pulse is automatically reduced to two seconds after the first alarm condition is perceived). The detector's design provides strong immunity to air velocities, contamination and RF interference. Tested and approved to BS5445/EN54 Part 7.

SPECIFICATION

Supply Voltage: 24 V dc nominal (range 12V - 30V dc).

Voltage Ripple: 20% maximum.

Alarm Voltage: 5V dc between + (terminal 3) and - (terminals 1,6) at 25°C.

Monitoring Current: 40µA (max.) @ 24V d.c.

Alarm Current: 65 mA. max. **Charging Time:** 30 seconds.

Ambient Temperature Range: -10°C. to +50°C.

Weight: 116g (Head only). **Approvals:** LPCB certified.

BF317NH IONISATION SMOKE DETECTOR



The BF317NH ionisation smoke detector utilises the dual chamber, single source principle to provide optimum response to smoke. It is generally suitable for detecting fires from materials which produce large smoke particles such as fabrics, furnishings, etc. Tested and approved to BS5445/EN54 Part 7, the BF317NH's radioactive source is only 33.3kBeq., (0.9mci), Americium 241, which conforms to OECD recommendations. The detector's design provides strong immunity to air velocities, contamination and RF interference.

SPECIFICATION

Supply Voltage: 24 V dc nominal (range 16V - 30V dc).

Voltage Ripple: 20% maximum.

Alarm Voltage: 5V dc between + (terminal 3) and - (terminals 1,6) at 25°C.

Monitoring Current: 40µA (max.) @ 24V d.c.

Alarm Current: 65 mA. max. **Charging Time:** 20 seconds.

Ambient Temperature Range: -10°C. to +50°C.

Weight: 110g (Head only). **Approvals:** LPCB certified.

BF308N STANDARD MOUNTING BASE



The BF308W base accepts all C120 Series detectors. Screw terminals are provided for power and an auxiliary output connection is provided for the connection of a remote LED (if required).

BF318 REMOTE LED INDICATOR



The BF318 Remote LED connects to the BF308N standard mounting base to indicate an alarm condition at detectors which are out of sight (in lift shafts, hotel bedrooms, behind false ceilings, etc). With a voltage range of 3 to 30 V dc, a high brightness LED and reverse polarity protection, the BF318 can also be connected directly to the sounder output of an alarm system as a visual indication. The white plastic case is 84mm square, 13mm deep and fits on a standard UK single gang back box.