

Overview

The EC Series of low-profile plug-in smoke and heat detectors measure-up to the quality and performance standards that have made EST fire detection products the industry's best price-performance buy available today. Meticulously engineered to deliver high-performance features, superb reliability, and unbeatable quality, the EC Series is a low-cost solution for conventional detection applications.

The EC30U-3 photoelectric detector distinguishes itself as a performance leader in its class with its highly stable design that resists air movements caused by heating and air conditioning, and changing environmental conditions. This makes it a reliable performer ideally suited to modern building interiors.

The EC20FTU-3 is a high-performance fixed-temperature heat detector with an alarm threshold of 135° F (58° C).

The EC20RRU-3 also has an alarm threshold of 135° F (58° C), but it incorporates an advanced rate compensation sensing element that causes the detector to become more sensitive when an increase in the rate of temperature rise is detected.

Thanks to their advanced thermistor technology, EC Series heat detectors are ideal for a wide range of applications where smoke detection is inappropriate. The EC20RRU-3 rate-of-rise detector is well suited to areas such as kitchens and shower rooms, where the ambient temperature is relatively constant, but where steam and smoke are present. The EC20FTU-3 fixed-temperature detector is ideal for laundries and industries where fluctuations in ambient temperature is expected.

We recommend that all detectors be installed according to the latest recognized edition of national and local fire alarm codes.

The installation and maintenance advantages of EC Series detectors add value to these products throughout their service life. Their twist-and-lock design makes short work of installation and maintenance operations. A plastic breakout on the detector housing optionally prevents removal from the base except with a special tool.

A bright, easy-to-see LED on the detector glows steady when it is in alarm, thus eliminating much of the guesswork responding to front-panel indications. If a detector is removed for any reason while the panel is in its normal state, a zone trouble condition will result. This ensures the integrity of the alarm system at all times.

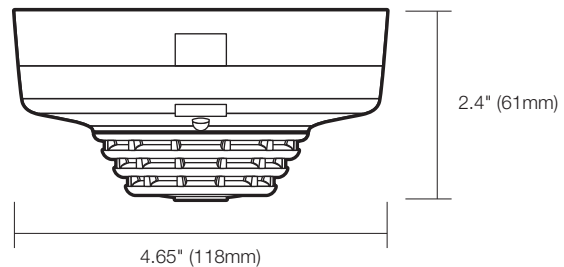
Standard Features

- Sensitive to visible and invisible products of combustion
- Stable, reliable design
- Non-polarized
- At-a-glance alarm indication
- Rate-compensated heat detector technology

Mounting

Standard base mounts to the following electrical boxes:

- North American 3 1/2 inch octagon boxes
- North American 4 inch octagon boxes
- North American 1-gang electrical boxes
- European 1-gang boxes with 60.3 mm fixing centers
- European BESA boxes



EC Series Smoke and Heat Detectors

EC30U-3 Photoelectric and EC20 Heat Detectors



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Specifications

| | EC30 Photoelectric Detector | EC20 Heat Detector |
|---------------------------------|---|--|
| Operating Voltage Range | 14 - 30 Vdc | 14 - 30 Vdc |
| Normal Operating Current | 62µA | 64µA |
| Alarm Current | 100 mA (max.) limited by control panel | 100 mA (max.) limited by control panel |
| Alarm Sensitivity Range | 1.38 - 3.08% obs/ft | 135° F (58° C) |
| Test Feature | Sensitivity reading using Test/Picker Tool | - |
| Ion Source | - | - |
| Operating Environment | | |
| Altitude | Not Applicable | Not Applicable |
| Temperature | 32° F to 100° F (0° C to 38° C) | 32° F to 100° F (0° C to 38° C) |
| Humidity | 20 - 95% RH (non condensing) | 20-95% RH (non condensing) |
| Air Velocity | 0 - 5,000 ft/min (manufacturer rated) 0 - 300 ft/min (UL listed) | Not Applicable |
| Storage Environment Temperature | 32° F to 120° F (0° C to 49° C) | 32° F to 120° F (0° C to 49° C) |
| Maximum Spacing | 30 ft (9.1 m) centers | 50 ft (15.2 m) centers |

Ordering Information

| Model | Description |
|-----------|---|
| EC30U-3 | Low-profile plug-in photoelectric detector |
| EC20FTU-3 | Low-profile Plug-in Fixed Temperature Heat Detector |
| EC20RRU-3 | Low-profile Plug-in Rate-of-Rise Heat Detector |
| CSBU-1 | Standard detector base |
| CSB4U-1 | 4" standard detector base |
| CRB4U-1 | 4" relay detector base, 1.25A @ 30 Vdc |
| C-TRIM | Trim skirt for CSBU-1 base |
| EC-LED | Remote alarm LED indicator |

Wiring

The detector mounting bases will accept #18 AWG (0.75mm²), #16 (1.0mm²), #14 AWG (1.5mm²) and #12 AWG (2.5mm²) wire sizes.

CSBU-1: Standard detector base

Provides plug-in tamper-resistant mounting. Includes screw terminals for connection of installation wires.

| Terminal | Description | Terminal | Description |
|----------|-------------|----------|-------------|
| 1 | Not used | 6 | Not used |
| 2 | Out (-) | 7 | Not used |
| 3 | In (-) | 8 | LED |
| 4 | Not used | | |
| 5 | In/out (+) | | |

