



# Low-profile Plug-in Photoelectric Detector

## EC30U-3



Shown with base,  
ordered separately

### Overview

EC30U-3 low-profile plug-in photoelectric detectors measure up to the quality and performance standards that have made Edwards 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 EC30U-3 is a low-cost solution for conventional detection applications.

The EC30U-3 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 installation and maintenance advantages of the EC30U-3 add value to this detector throughout its service life. Its 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 when 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.

EC30U-3 detectors are manufactured to strict international ISO 9001 standards. All electronics employ surface mount technology (SMT) for smaller size and greater immunity to RF noise. A corrosion-resistant conformal coating is used to seal components against dust and humidity.

### Standard Features

- **Sensitive to visible and invisible products of combustion**  
Finely tuned to sense all fire types, especially slow burning, smoldering fires fuelled by combustibles typically found in modern multi-use buildings.
- **Stable, reliable design**  
Uses the light scattering principle for smoke detection and is not affected by air movement.
- **Non-polarized**  
Simplifies installation of field wiring
- **Simple to install, difficult to vandalize**  
Twist-and-lock design saves installation and maintenance time. Field-configurable locking mechanism prevents unauthorized removal.
- **Flexible mounting options**  
Compatible standard base mounts to 1-gang, 4" octagonal, BESA, or European single-gang boxes.
- **Easy to maintain**  
Removable housing and insect mesh facilitates cleaning.
- **Attractive appearance with clean, modern lines**  
Low-profile design blends easily with surroundings, extending less than 2½" (61 mm) from the ceiling, including base.

### Application

Thanks to its high-performance photoelectric sensor, the EC30U-3 responds quickly and reliably to all fire types, especially slow burning fires fuelled by combustibles typically found in modern multi-use buildings. Particles as small as 0.5 microns will be detected by the sensing element, triggering an alarm at the first sign of smoke.



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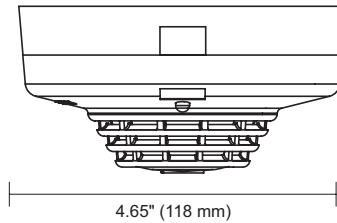
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## Mounting

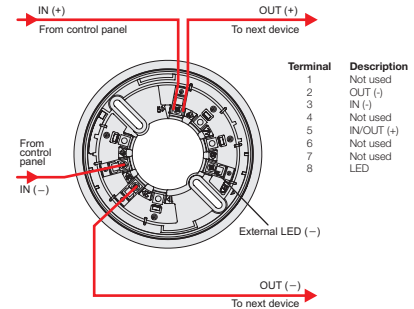
Standard base mounts to the following electrical boxes:

- North American 3½ 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



## Wiring

CSBU-1 Standard detector bases provide plug-in tamper-resistant mounting and include screw terminals for connection of installation wires. Bases will accept #18 AWG (0.75mm<sup>2</sup>), #16 (1.0mm<sup>2</sup>), #14 AWG (1.5mm<sup>2</sup>) and #12 AWG (2.5mm<sup>2</sup>) wire sizes.



## Compatibility

Panel model	Zone model	Maximum Detectors		Zone ID	
		UL	ULC	UL	ULC
QuickStart	ZA8-2, ZB16-4	40	30	100	100
EST3	IDC8/4	48	30	00	0.0
FireShield	CPU	24	24	100	100

## Specifications

Operating Voltage Range	14 - 30 Vdc
Normal Operating Current	62µA
Alarm Current	100 mA (max.) limited by control panel
Sensitivity Range	1.38 - 3.08% obs/ft
Test Feature	Sensitivity reading using Test/Picker Tool
Operating Environment	
Temperature	32° F to 100° F (0° C to 38° C)
Humidity	20 - 95% RH (non condensing)
Air Velocity	0 - 5,000 ft/min (manufacturer rated) 0 - 300 ft/min (UL listed)
Storage Environment Temperature	32° F to 120° F (0° C to 49° C)
Maximum Spacing	30 ft (9.1 m) centers
Construction	White molded high-impact fire-retardant plastic
UL Compatibility ID	A
Compatible Bases	See Ordering Information

## Ordering Information

Model	Description	Ship Wt., lb (kg)
EC30U-3	Low-profile Plug-in Photoelectric Detector	0.25 (0.11)
CSBU-1	Standard detector base	
CSB4U-1	4" Standard detector base	
CRB4U-1	4" Detector base with relay	0.11 (0.05)
CSBU-3	Detector base with resistor	
EC-LED	Remote Alarm LED	0.4 (0.18)
C-TRIM	Trim skirt for standard base	0.4 (0.18)
C-PST	Detector picker/sensitivity tester	1.4 (0.64)