

Low-profile Plug-in Ionization Detector

EC10U-3, EC10C-3

Shown with base,
ordered separately



Overview

EC10 low-profile plug-in ionization 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 EC10 is a low-cost solution for conventional detection applications.

The EC10 distinguishes itself as a performance leader in its class with automatic compensation that dramatically reduces the risk of nuisance alarms caused by changes in temperature, humidity and atmospheric pressure. While many comparable detectors routinely fall into alarm or trouble states when these conditions fluctuate, the EC10 automatically compensates without compromising detection performance. The net result is a degree of reliability unparalleled among conventional detectors on the market today.

The installation and maintenance advantages of the EC10 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.

Standard Features

- **Sensitive to visible and invisible products of combustion**
Finely tuned to sense all fire types, especially fast burning fires fuelled by combustibles such as oil, spirits, wood and paper.
- **Stable design**
Inhibits false alarms caused by transient electrical disturbances. Automatically compensates for temperature, humidity and barometric changes.
- **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" square, 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 ionization sensor, the EC10 responds quickly and reliably to all fire types, especially fast burning fires fuelled by combustibles such as oil, spirits, wood and paper. Particles as small as 0.01 microns will be detected by the sensing element, triggering an alarm even before visible smoke is apparent.



Detection & alarm since 1872

U.S.
T 888-378-2329
F 866-503-3996

Canada
Chubb Edwards
T 519 376 2430
F 519 376 7258

Southeast Asia
T : +65 6391 9300
F : +65 6391 9306

India
T : +91 80 4344 2000
F : +91 80 4344 2050

Australia
T +61 3 9239 1200
F +61 3 9239 1299

Europe
T +32 2 725 11 20
F +32 2 721 86 13

Latin America
T 305 593 4301
F 305 593 4300

utcfireandsecurity.com

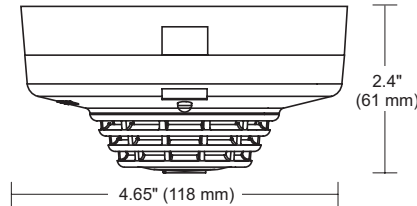
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Edwards recommends that all detectors be installed according to the latest recognized edition of national and local fire alarm codes.

Mounting

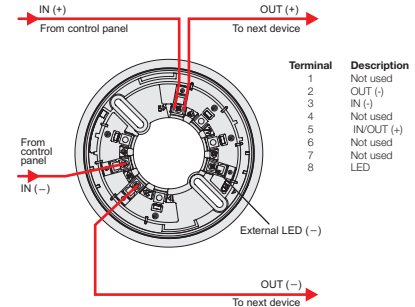
Standard base mounts to the following electrical boxes:

- 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 (0.75mm²), #16 (1.0mm²), #14 AWG (1.5mm²) and #12 AWG (2.5mm²) wire sizes.



Compatibility

Panel model	Zone model	Maximum Detectors		Zone ID
		UL	ULC	
QuickStart	ZA8-2, ZB16-4	50	30	100
EST3	IDC8/4	60	30	00
FireShield	CPU	24	24	100

Specifications

	EC10U-3	EC10C-3
Approvals	UL	ULC
Sensitivity Range (obs/ft)	0.69 to 1.29%	0.69 to 1.18%
UL Compatibility ID	A	N/A
Operating Voltage Range	14 - 30 Vdc	
Normal Operating Current	50µA	
Alarm Current	100 mA (max.) limited by control panel	
Test Feature	Sensitivity reading using Test/Picker Tool or Gemini 501	
Ion Source	0.85µC Americium	
Operating Environment		
Altitude	0 - 6,000 ft above sea level	
Temperature	32° F to 100° F (0° C to 38° C)	
Humidity	20-95% RH (non condensing)	
Air Velocity	0 - 300 ft/min (manufacturer rated & UL listed)	
Storage Environment Temp.	-4° F to 140° F (-20° C to 60° C)	
Maximum Spacing	30 ft (9.1 m) centers	
Construction	White molded high-impact fire-retardant plastic	
Compatible Bases	See Ordering Information	

Ordering Information

Model	Description	Shipping Wt. lb (kg)
EC10U-3	Low-profile Plug-in Ionization Detector (UL)	0.25 (0.11)
EC10C-3	Low-profile Plug-in Ionization Detector (ULC)	
CSBU-1	Standard detector base	0.11 (0.05)
CSB4U-1	4" Standard detector base	
CRB4U-1	4" Detector base with relay	
CSBU-3	Detector base with resistor	
EC-LED	Remote Alarm LED	
C-TRIM	Trim skirt for standard base	
C-PST	Detector picker/sensitivity tester	