CONVENTIONAL - Multi Criteria Photoelectric Smoke / Thermal Detector

Model ECO1002

Overview

Features

- Low profile design
- Low current draw
- Automatic drift compensation
- Operates on 12 and 24VDC Systems
- Remote alarm test feature
- Easy Maintenance
- Range of detector bases available
- Remote LED Option
- Approved to EN54 – 7:2000 (Amendment 1)
- EN54 – 5:2000 Class A1R; CEA 4021
- Approved to MED 96/98/EC (Amendment 2009/26/EC)

199k/01

G201067

0832-CPD-0065

0832-MED-1019
0832-MED-1020

Description

The ECO1002 multi-criteria detector belongs to System Sensor's ECO1000 range of detectors. ECO1000 is a range of conventional detectors, which have been produced using the latest in manufacturing technology and supplied with an array of advanced features, making them 'better by design'.

The ECO1002 multi-criteria detector uses a state of the art optical chamber and a thermal element combined with a microprocessor, running sophisticated algorithms to provide quick and accurate detection of fires. The combination of photoelectric and thermal characteristics provides a faster response to 'real fire' situations, while at the same time reducing the risk of unwanted environmentally generated alarms.

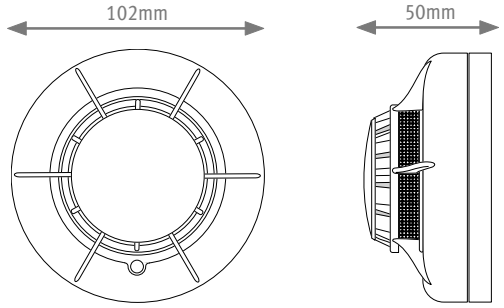
A laser-based hand held Remote Test Unit can be used in conjunction with the range of ECO1000 detectors for alarm test purposes. The unit transmits a coded message, preventing spurious alarms being generated by other laser-based devices. With a range of several metres, the hand held test unit provides an effortless way of remotely alarm testing the range of ECO1000 detectors and removes the need for any direct physical access to the detector by the user.

The ECO1002 detector also has an integral LED, which illuminates to provide a local alarm signal. This latches on, and remains illuminated until the detector is reset by a momentary power interruption. An optional remote LED annunciator may be used to repeat any alarm signal. A variety of detector bases can be used with the ECO1002 detector, providing application flexibility and compatibility with a wide range of Fire Alarm Control Panels. All bases are fitted with a shorting spring to permit circuit testing prior to fitting the detector and have a tamper resistant feature, which when activated prevents removal of the detector without the use of a tool.

SYSTEM SENSOR®

Architect/Engineer Specifications

ECO1002 Photoelectric Smoke/Thermal Detector



Electrical Specifications

Operating Voltage Range	8 to 30VDC (Nominal 12/24VDC)
Maximum Standby Current @25°C	75µA @ 24VDC
Maximum Permissible Alarm Current	80mA (current limited by control panel)

Environmental Specifications

Application Temperature Range (see note)	-30°C to 70°C
Humidity	5% to 95% Relative Humidity (non-condensing)

Mechanical Information

Height	40.5mm (plus 9.5mm for standard base)
Diameter	102mm
Weight	78g (plus 45g for standard base)
Wire Gauge for Terminals	0.4mm2 to 2.0mm2
Colour	Approximates to RAL9016
Material	ABS

Product Range

Bases	
ECO1000B Standard Base	ECO1000BSD Standard base with Shottky diode
ECO1000BR Resistor base 470 Oohm	ECO1000BRSD Resistor base 470 Ohm with Shottky diode
ECO1000DB Deep base	ECO1000DBSD Deep base with Shottky diode
ECO100DBR Deep resistor base 470 Ohm	ECO100DBRSD Deep resistor base 470 Ohm with Schottky diode
ECO1000BREL12L Relay base 12V Latching	ECO1000BREL12NL Relay base 12V Non –latching
ECO1000BREL24NL Relay base 24V Latching	
Accessories	
ECO1000RTU Remote Test Unit	
Other Detectors	
ECO1003 Photoelectric Detector	ECO1004T 78 °C Fixed Temperature Thermal Detector
ECO1005 Rate of Rise & 58 °C Fixed Temperature	ECO1005T 58 °C Fixed Temperature Thermal Detector

Notes

Bases with other resistor values are available to suit the requirements of most Fire Alarm Control Panels.

SYSTEM SENSOR®