ECO 1000
Multi Criteria Photoelectric Smoke / Thermal Detector
Model ECO1002

SYSTEM SENSOR®

Product 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 (Amendment 1) Class A1R; CEA 4021
- Extended warranty

LPCB — LOSS PREVENTION CERTIFICATION BOARD

199p/01   VdS G201067   C E 0832-CPD-0065

Description

The ECO1002 photoelectric smoke 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 photoelectric smoke detector uses a state of the art optical chamber combined with an application specific integrated circuit (ASIC) to provide quick and accurate detection of fires. A combination of the unique chamber design and other technically advanced features will significantly extend the service intervals beforecleaning of the detector becomes necessary.

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 a fast and simple 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.
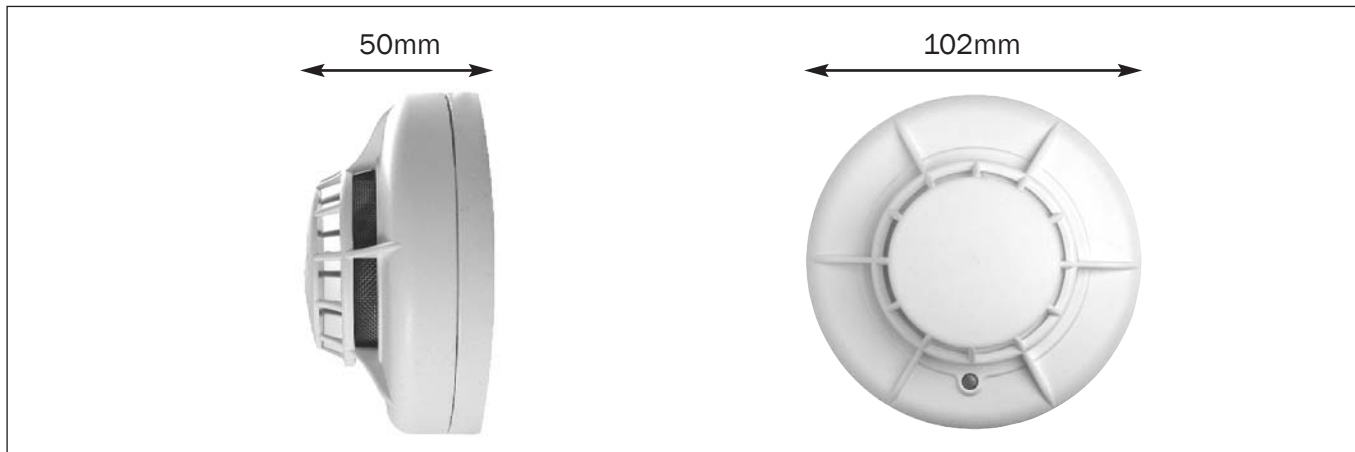
The ECO1002 detector has an integral LED, which illuminates to provide a local alarm signal. This latches on, and remains illuminated until the detector is reset by a momentary power interruption. An optional remote LED annunciator may be used to repeat any alarm signal.

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.

All System Sensor products are covered by our extended 3-year warranty.

Architect/Engineer Specifications

ECO1002 Photoelectric Smoke/Thermal Detector

50mm

102mm

Electrical Specifications

Operating Voltage Range	Maximum Standby Current @25ÞC	Maximum Permissible Alarm Current
8 to 30VDC (Nominal 12/24VDC)	60µA @ 24VDC	80mA (current limited by control panel)

Environmental Specifications

Application Temperature Range (see note)	Humidity
-30ÞC to +70ÞC	5% to 95% Relative Humidity (non-condening)

Mechanical Information

Height	Diameter	Weight
40.5mm (plus 9.5mm for standard base)	102mm	78g (plus 45g for standard base)
Wire Gauge for Terminals	**Colour**	**Material**
0.4mm^2 to 2.0mm^2	Approximates to RAL9016	ABS

Product Range

Bases

ECO1000B Standard Base	ECO1000BSD Standard base with Shottky diode
ECO1000R 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 78ÞC Fixed Temperature Thermal Detector
ECO1005 Rate of Rise & 58ÞC Fixed Temperature	ECO1005T 58ÞC Fixed Temperature Thermal Detector

Notes

1. To avoid unwanted alarm conditions being triggered by class A1S and A1R detectors maximum ambient operating temperature should not exceed 45ÞC

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

DSECO1002-02