

ECO1000

conventional detectors

*better by design*





# A major advance in conventional smoke detector technology

## Key Features

- Photo-thermal model provides outstanding protection
- Laser-based remote test unit – no need for ladders and towers
- EN 54 Certified (2000 edition)
- Photoelectric, photo-thermal and thermal detectors
- Improved chamber design minimises the effects of dust contamination
- 8 to 30VDC operating voltage range ensures compatibility with both fire and security systems
- -20 to +60°C operating temperature range
- Choice of bases (including a 12V relay version)
- Photoelectric model with integral piezoelectric sounder (availability subject to further announcement)

*ECO1000, better by design*

**System Sensor**, the world's largest manufacturer of conventional and analogue addressable fire detectors, has used its immense experience, design capabilities and technical abilities in the development of the ECO1000 family of conventional detectors. Combining advanced technology with state of the art volume manufacturing, the ECO1000 combines features normally only found in top of the range analogue detectors with the ease of use and cost effectiveness of a conventional unit.

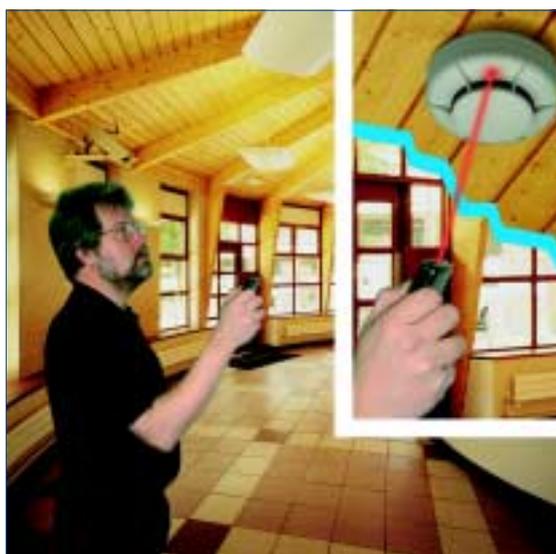
**The ECO1000 family** has been independently tested and certified to the latest European standard, EN54 pt5/pt 7 2000, giving specifiers, fire and security installers and end users complete confidence that the products are suitable for the protection of life and property.

The range boasts many features previously only found in the more sophisticated – and therefore expensive – analogue addressable models. System Sensor is the first manufacturer to include such features in a conventional detector, improving the levels of protection and reducing false alarm rates in the smaller and less complex systems where the complexity of an analogue addressable system is not required.



The family consists of a photoelectric smoke detector, a combined photo-thermal smoke and heat detector, fixed and rate of rise thermal detectors, all fitting a common base. A low profile, unobtrusive design blends in with both traditional and modern premises, enabling them to be installed in any location without problems.

**Routine testing** has traditionally involved physical access to the installed unit, a time-consuming procedure often requiring the use of step ladders or long poles. The ECO1000 is tested from ground level using a laser based remote alarm test unit. The commissioning or service engineer directs the modulated laser beam at the detector's LED; the unit responds to the commands and latches into alarm. What could be simpler?



**The ECO1002 photo-thermal detector** is a true multi-criteria unit. The output levels from both the optical chamber and the thermistor are continually monitored by the onboard processor, using algorithms developed specifically for the unit. An alarm signal is enabled in the detector once the processor is satisfied that an incipient fire has been detected. By using a combination of inputs, the incidence of false alarms is reduced while at the same time, the response time to a rapidly developing fire is also reduced.



**The ECO1003 photoelectric smoke detector's** chamber has been specifically designed to be highly tolerant to the long term build-up of dust and other airborne contaminants. This high level of immunity significantly reduces the potential for unwanted alarms caused by settled dust increasing the detector's sensitivity. Additional immunity to unwanted alarms arising from short-lived transients is also provided through the use of special signal processing.

The end result is an extremely stable detector with the potential to extend significantly the period before cleaning is required.

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# OUTLINE TECHNICAL SPECIFICATION

## General

- Operating voltage: 8 – 30VDC (nominal 12 or 24VDC)
- Detector height: 42mm (optical) or 50mm (thermal)
- Detector diameter: 102mm
- Detector weight: 75g
- Single multi-function LED indicator
- Standard base with remote LED output
- Dust tolerant optical chamber design
- Unique remote laser test unit

### ECO1002 combined photo-thermal

Typical standby current: 240µA  
Maximum alarm current: 50mA (limited by control panel)  
Maximum humidity: 95% RH  
Operating temperature: –20 to +60°C  
Weight: 75g  
*Meets EN54–7:2000; EN54–5:2000 Class A1R; CEA4021*

### ECO1003 photoelectric detector

Typical standby current: 120µA  
Maximum alarm current: 50mA (limited by control panel)  
Maximum humidity: 95% RH  
Operating temperature: –20 to +60°C  
Weight: 75g  
*Meets EN54–7:2000*

### ECO1005 rate of rise thermal detector

Typical standby current: 120µA  
Maximum alarm current: 50mA (limited by control panel)  
Maximum humidity: 95% RH  
Operating temperature: –20 to +60°C  
Weight: 70g  
*Meets EN54–5:2000 Class A1R*

### ECO1005T thermal detector

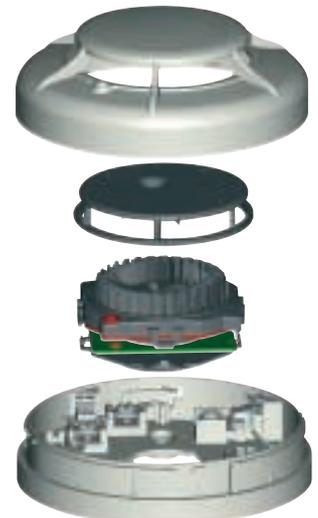
Typical standby current: 120µA  
Maximum alarm current: 50mA (limited by control panel)  
Maximum humidity: 95% RH  
Operating temperature: –20 to +60°C  
Weight: 70g  
*Meets EN54–5:2000 Class A1S*

### ECO1000 bases

ECO1000B Standard base  
ECO1000BSD Standard base with Schottky diode  
ECO1000R Resistor base 470 Ohm  
ECO1000BRSD Resistor base 470 Ohm with Schottky diode  
Other resistor/base combinations are available

### Accessories

ECO1000RTU Remote test unit



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