CONVENTIONAL - Photoelectric Smoke Detector
Model ECO1003 A

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)
- Approved to MED 96/98/EC (Amendment 2009/26/EC)
- Extended warranty

Description

The ECO1003 A 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 ECO1003 A 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 before cleaning 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 ECO1003 A 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 ECO1003 A 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.
As the world's leading expert in fire detection solutions, System Sensor delivers the highest quality, technically advanced devices to protect people and property from threats of fire.

System Sensor provides a complete portfolio of aspirating detectors and accessories as well as other types of fire detection devices allowing you to purchase an entire fire detection system in one go.

Maximize performance of your aspiration system
A well designed, quality pipe work is critical to achieving the highest performance of your aspiration system. System Sensor's comprehensive range of aspiration accessories is designed to optimise the performance of FAASTM and other low pressure aspiration systems. All listed aspiration accessories meet the requirements of BS5391 Part 1, EN 61386-1 and EN 54 Part 20 standards where appropriate. Specified pipes are of 25mm external diameter with all necessary fittings to make pipe network connections, turns and alterations.

Design Pipe networks with PipeIQ
System Sensor's portfolio of aspiration accessories will allow you to deliver pipe networks designed with FAASTM PipeIQ software. PipeIQ enables quick and efficient design of pipe networks for even the most complex sites. PipeIQ calculates the theoretical performance of a system to comply with EN or UL legal requirements. A wide choice of pipe lengths and hole spacings minimises pipe wastage and reduces installation time.

The highest quality and durability
Most pipe accessories for the aspirating smoke systems specified in this datasheet are made of Acrylonitrile Butadiene Styrene (ABS) resin material. ABS is more durable than PVC and superior in extreme conditions. ABS has higher corrosive chemical resistance, ductility and higher environmental stability. It is also lightweight and has low thermal expansion.

All aspirating accessories are red to indicate fire protection and provide clear differentiation between other pipe systems.

Aspirating Accessories: Pipes and Fittings
Aspiration Smoke Detection

As the world's leading expert in fire detection solutions, System Sensor provides a complete portfolio of aspiration systems. Design aspiration pipe networks with ABS pipe, fittings and related accessories specified by System Sensor.

Design Pipe networks with PipeIQ™ software. PipeIQ™ enables quick and efficient design of pipe networks for even the most complex sites. PipeIQ™ calculates the theoretical performance of a system to comply with EN or UL legal requirements. A wide choice of pipe lengths and hole spacings minimises pipe wastage and reduces installation time.

System Sensor's comprehensive range of aspiration accessories is designed to optimise the performance of the highest performance of your aspiration system. A well designed, quality pipe work is critical to achieving the highest quality and durability. System Sensor's portfolio of aspiration accessories will allow you to purchase aspirating detectors and accessories as well as other types of fire detection devices allowing you to purchase an entire fire detection system in one go.

System Sensor's Trieste Facility (address as above) approved to ISO 14001. These products do not require an environmental permit.

### Material Content

<table>
<thead>
<tr>
<th>Name of Part</th>
<th>Material</th>
<th>RoHS</th>
<th>Hazardous</th>
<th>Recycling Instruction (WEEE is out of scope)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dust cover</td>
<td>polystyrene</td>
<td>Yes</td>
<td>Non-hazardous</td>
<td>Re-used or recycled</td>
</tr>
<tr>
<td>Cover thermal/photo termal</td>
<td>ABS</td>
<td>Yes</td>
<td>Non-hazardous</td>
<td>Recycled by regrinding into granules and blending with virgin material or landfilled</td>
</tr>
<tr>
<td>Swirl chamber cover</td>
<td>ABS; PC+ABS - FR</td>
<td>Yes</td>
<td>Non-hazardous</td>
<td>Recycled or landfilled</td>
</tr>
<tr>
<td>Swirl chamber base</td>
<td>ABS+Stirene- Etilene-Butilene-Stirene (SEBS); ABSFR+ Stirene- Etilene-Butilene- Stirene (SEBS)</td>
<td>Yes</td>
<td>Non-hazardous</td>
<td>Not recyclable - landfilled</td>
</tr>
<tr>
<td>Light pipe</td>
<td>PMMA</td>
<td>Yes</td>
<td>Non-hazardous</td>
<td>Re-used or recycled</td>
</tr>
<tr>
<td>Cover</td>
<td>ABS</td>
<td>Yes</td>
<td>Non-hazardous</td>
<td>Re-used or recycled</td>
</tr>
<tr>
<td>Printed Circuit Board</td>
<td>CEM3 (Epoxy,Glass) SAC305 (Copper Coating, Solder)</td>
<td>Yes</td>
<td>Non-hazardous</td>
<td>Recycled or landfilled</td>
</tr>
<tr>
<td>Printed Circuit Board Components</td>
<td>Metals, Plastics, Ceramics, Tinned Stainless Steel, Tin Brass</td>
<td>Yes</td>
<td>Non-hazardous</td>
<td>Recycled or landfilled</td>
</tr>
</tbody>
</table>

### Energy Consumption

ECO1003A

Avg. Standby Power 1,08 mW (45 μA at 24 V) at 25°C one communication every 5 sec. With LED blink enabled

Max. Alarm Power (LED on) 1,92 W (80mA at 24VDC)

### Environmental Permit

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### Packaging

Primary packaging Single Box: Cardboard

Secondary packaging Masterbox (5 Singlebox per M.box) and Shippingbox ( 28 M.box per S.box): cardboard, Tape (polypropylene)

Transportation packaging Pallet (wooden platform), wrapping (polyethylene 04)

### Additional Information

The purpose of this report is to provide information on the environmental aspects of the product, emphasis being on the material content and the energy consumption. Since there are not any emissions of harmful substances during the use of this product or in the manufacturing process of it, it is not necessary to specify these factors in this report. Also the transportation emissions are not included.

## System Sensor (Technical Services)

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Installation information: in order to ensure full functionality, refer to the installation instructions as supplied.