

CONVENTIONAL - Rate of Rise & Fixed Temperature Thermal Detector Model 5351IEA

Overview

Features

- Low profile design
- Low current draw
- Backward compatible with Series 100 detector range of bases
- Wide operating voltage 8 to 30VDC
- Bi-colour LED detector status indicator
- Programmable sensitivity
- Addressable feature
- Advanced maintenance features via remote hand-held test unit
- Range of detector bases available
- Tested and approved to EN54 – 5:2000 Class A1R (Amendment 1)
- Extended warranty



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B-9073-FD-K 377-f

Description

The 5351IEA thermal detector forms part of the Series 300 range of conventional detectors. This range of detectors has been produced using the latest in manufacturing and design techniques, pushing out the boundaries of existing conventional detector technology. With its multitude of innovative features, the Series 300 is a detector which 'acts conventionally, thinks intelligently'.

The 5351IEA thermal detector incorporates an Application Specific Integrated Circuit (ASIC). Combined with the latest in thermal element technology the detector provides efficient and accurate detection of fires, especially in environments such as bars or kitchens where smoke detectors are inappropriate due to the high level of airborne contamination.

The 5351IEA and other detectors in the Series 300 range are backward compatible with the Series 100 detector bases, thus providing the capability to upgrade, extend and maintain existing Series 100 installations.

The 5351IEA detector incorporates a bi-colour LED indicator. The integral LED changes colour according to the detector's status - Green = Normal, Red = Alarm. This benefits the user by providing clear, instant visual indication of the detector's condition. The Green LED can be programmed for blink/no blink operation.

The remote hand-held programming unit can also be used in conjunction with the Series 300 range of detectors to gain access to other advanced features. The features available include: read/write last maintenance date, read value of thermal element and perform an alarm test.

Each unit can be given a unique address that will be displayed on the S300ZDU whenever the detector is in alarm.

All the features via the hand-held programming unit are achieved effectively and effortlessly without the need to remove the detector or having to gain direct physical access (other than by the use of 'No Climb Products' or similar servicing tool), saving valuable commissioning/maintenance time.

They provide the end user with the confidence to know that his system is being regularly serviced and that it is operating at its optimum level, with minimum disruption to his own business activities.

Architect/Engineer Specifications

5351IEA Rate of Rise & Fixed Temperature Thermal Detector

In addition to the comprehensive programming tool, a simple laser based alarm test unit is also available. The coded signal transmitted by this device can instruct the detector to generate a full alarm condition at a range of up to 5 metres from the detector, and is an ideal tool for initial commissioning and routine system testing.

A variety of detector bases can be used with the 5351IEA 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.

Electrical Specifications

Operating Voltage Range	8 to 30VDC (Nominal 12/24VDC)
Typical Standby Current @ 25°C	60µA @ 24VDC (LED no blink)
Maximum Alarm Current (LED On)	80mA @ 24VDC (Limited by panel)

Environmental Specifications

Application Temperature Range	-30°C to +70°C
Humidity	0 to 95% Relative Humidity (non condensing)

Mechanical Information

Height	48mm (plus 9mm for B401 base)
Diameter	102mm
Weight	105g (plus 60g for B401 base)
Max Wire Gauge for Terminals	0.75mm ² to 2.5mm ²
Colour	Pantone Warm Grey 1C
Material	Bayblend FR110

Product Range

Compatible Bases (see notes)	B401 Standard Base
	B401SD Standard base with schottky diode
	B401R Resistor base with 470 ohm resistor
	B401RSD Standard base with 470 ohm resistor and Shottky diode
	B401RM Standard recess base with 470 ohm resistor
	B401DG Deep base
	B401DGR Deep base with 470 ohm resistor
	B401DGSD Deep base with Shottky diode
Accessories	S300RPTU Remote Programming and Test Unit
	S300RTU Remote Test Unit
	S300SAT Remote Programming Interface Unit
	S300ZDU Zonal Display Unit
Other Devices in range	2351E, 2351TEM, 5351EA, 5351TE

Notes

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



WEEE/RoHS/REACH Assessment

5351E, 4351E AND 5351TE Product Evaluation Record

General information

Manufacturing Location	System Sensor Trieste Pittway tecnologica S.r.l. Via Caboto 19/3 34147 Trieste, Italy
Model Numbers	5351E, 4351E AND 5351TE
Product description	THERMAL DETECTOR 300 SERIES, FIXED THERMAL DETECTOR 300 SERIES, FIXED THERMAL DETECTOR 300 SERIES
Product Life Cycle	Life span expectancy of >20 years (assuming that environmental conditions have been taken into consideration and the modules are regularly maintained)

Material Content

Name Of Part	Material	RoHS	Hazardous	Recycling Instruction (WEEE is out of scope)
Dust cover	polystyrene	Yes	Non-hazardous	Re-used or recycled
Cover thermal/photo thermal	PC+ABS-FR	Yes	Non-hazardous	Recycled by regrinding into granules and blending
Swirl chamber cover	ABS+Stirene- Etilene-Butilene- Stirene (SEBS)	Yes	Non-hazardous	Not recyclable - landfilled
Filter	ABS+PA66	Yes	Non-hazardous	Not recyclable - landfilled
Light pipe	PMMA	Yes	Non-hazardous	Re-used or recycled
PCB Cover	PC+ABS-FR	Yes	Non-hazardous	Re-used or recycled
Contacts	Tinned Stainless Steel	Yes	Non-hazardous	Re-used or recycled
Printed Circuit Board	CEM3 (Epoxy,Glass) SAC305 (Copper Coating, Solder)	Yes	Non-hazardous	Re-used or recycled
Printed Circuit Board Components	Metals, Plastics, Ceramics, Tinned Stainless Steel, Tin Brass	Yes	Non-hazardous	Recycled or landfilled

Energy Consumption

Avg. Standby Power	1,44 mW (60 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

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

Packaging

Primary packaging	Single Box: Cardboard
Secondary packaging	Masterbox (10 Singlebox per M.box) and Shippingbox (10 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.

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