CONVENTIONAL–Multi Criteria Photoelectric Smoke/Thermal Detector
Model 2351/TEM

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
- Automatic drift compensation
- Range of detector bases available
- Tested and approved to EN54 – 7:2000 (Amendment 1) EN54 – 5:2000 Class A1R; (Amendment 1) CEA4021

LPCB
199P/03

VdS
G202018

CE
0832-CPD-0060

Description

The 2351/TEM photoelectric smoke/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.

The 2351/TEM photoelectric smoke/thermal detector incorporates an optical chamber and a thermal element, which in turn are continually monitored by an on board processor by using algorithms developed specifically for the unit. An alarm signal is only 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 nuisance alarms is reduced while at the same time, the response time to an actual fire is also improved.

The 2351/TEM 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 2351/TEM 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. 'Drift compensation' algorithms are one of the key features of the 2351/TEM detector. These algorithms ensure a consistent alarm sensitivity threshold for periods between service intervals. This provides the user with both a reduction in the frequency of nuisance alarms and maintenance savings by extending the period before cleaning of the detector chamber is required.

Architect/Engineer Specifications

2351/TEM Photoelectric Smoke / Thermal Detector

A variety of detector bases can be used with the 2351/TEM 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.

SYSTEM SENSOR

Electrical Specifications

Operating Voltage Range	8 to 30VDC (Nominal 12/24VDC)
Typical Standby Current @ 25ÞC	65µA @ 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	5 to 95% Relative Humidity (non condensing)

Mechanical Information

Height	38mm (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 schotty 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
	B312NL 12V non-latching relay base
	B312RL 12V latching relay base
	B324RL 24V latching relay base
Other Devices in range	2351/EC, 4351/E, 5351/E

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

DS5351TEM-07