

# Photoelectric Smoke Detector

## Model 22051E

### Overview

#### Features

- New mechanical platform with revolutionary chamber offering improved false alarm immunity
  - Improved detection across multiple fire types
  - Improved resilience to false alarms through dust
  - Removed risk of false alarms through insects
- Includes Series 200 Advanced Protocol
- Available with or without single pole short circuit isolation with status control through the Series 200 Advanced Protocol
- Tri colour LED offering red, green and amber colours
- Rotary decade address switches
- Pure white colour to compliment modern buildings
- 100% mechanical and electrical backwards compatibility
- New Base design to compliment the detector



Non-Isolated  
199m/10  
Isolated  
199m/01  
Issue 01

Non Isoltaed  
0786-CPR-20658  
Isolated  
0786-CPR-20652

Non Isolated  
G209021  
Isolated  
G209015

TCC2 - K828/a

B.04068

### Description

The revolutionary Series 200 Advanced range delivers a totally new detector platform that incorporates the new digital Series 200 Advanced Protocol. The new Protocol delivers more devices on the loop and gives greater control, configurability and device management whilst enabling the overall system to be optimised to the location and use of the building with far greater flexibility than ever before.

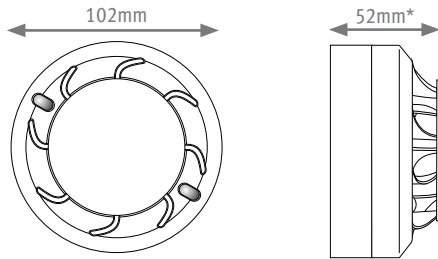
The 22051; photoelectric smoke detector has a completely new detection chamber design, the result of many years of research and design by System Sensor. This delivers improved responsiveness, reduced sensitivity changes caused by settling dust and reduced false alarms resulting from insect ingress and other debris. The plug-in unit uses sophisticated processing circuitry that incorporates smoothing filters to help eliminate transient environmental noise conditions that can be the cause of unwanted alarms. The devices are managed by embedded software running complex algorithms that further improve resilience to false alarms and improve detection speed.

The 22051E has two integral tri-colour LEDs that provide 360° local visual indication of the device status. The LEDs are programmable with static or blinking red, amber and green status indications available.

All Series 200 Advanced detectors are environmentally friendly and meet the WEEE and RoHS legislative requirements, minimising end of life disposal costs, and are mechanically and electrically backwards compatible with existing Series 200 plus devices.

## Architect/Engineer Specifications

22051E



### Electrical Specifications - Standard Product (22051E)

Operating Voltage Range	15 to 32Vdc
Maximum Standby Current	200µA at 24VDC (no communications) / 300µA at 24VDC (LED blink enabled, once every 5s)
Led Current	Red: 3.5mA at 24Vdc Green: 7.0mA @ 24Vdc Yellow: 10.5mA @ 24Vdc
Remote Out put Voltage	22.5Vdc @ 24Vdc
Remote Output Current	10.8mA @ 24Vdc
Additional loop resistance using the B501AP	typ 20mohm (max 30 mohm)

### Electrical Specifications - Isolator Version (only found in 22051EI)

Operating Voltage Range	15 to 28.5Vdc
Isolation Current	15mA at 24VDC
Maximum Continuous Current	1A (Switch Closed)

### Environmental Specifications

Temperature Range	-30°C to +80°C <sup>†</sup>
Humidity	10 to 93% relative Humidity (non-condensing)

### Mechanical Information

Height	52mm installed in B501AP base
Diameter	102mm installed in B501AP base
Weight	97g (inc base)
Max Wire Gauge for Terminals	2.5mm <sup>2</sup>
Colour	White
Material	PC/ABS

### Product Range

Compatible Bases	B501AP Series, B500 Series (B501, B501DG, B524RTE, B524HTR, B524IEFT-1)
Other Devices in range	Please refer to other Series 200 Advanced Datasheets 22051TE / TEI, 22051TLE / TLEI, 52051RE/REI, 52051E/EI, 52051HTE /HTEI
Other Colours in range	Ivory

Note \* When installed in a B501AP base

<sup>†</sup> Do not install detectors in locations where normal ambient temperature exceeds 50°C

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

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