

# 200 Series™ Low-Profile Intelligent Combination Smoke Detector



A Division of Pittway  
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1-800-SENSOR2 (736-7672), Fax 630-377-6495  
<http://www.systemsensor.com>

## Models Available

**3251 Low-profile combination photoelectronic, ionization, and thermal detector**



## Features

- Microprocessor based technology
- Advanced fire detection and discrimination algorithms
- Rotary decade address switches
- Mechanically integrated shared volume smoke chamber
- Digital pulsewidth encoded communications with noise immunity

**The Omni Sensor**, model 3251, is a microprocessor-based smoke detector which uses a combination of ionization, photoelectronic, and thermal sensing technologies. Its advanced signal processing allows each sensor to be individually set at an optimal set point to reduce nuisance alarms, while integration of the sensor input permits

advanced warning of fire. Five sensitivity settings are available to cover a broad range of applications. Dual bicolor LEDs, visible from 360°, flash green in standby and glow steady red for alarm.

The Omni Sensor continuously monitors its sensitivity to smoke and compensates for any change or drift due to dust, temperature, and humidity. It incorporates rotary decade address switches, recognized as the industry's simplest addressing method. The exact address of each sensor can facilitate swift response to a specific fire situation or allow for selective maintenance when required.

## Specifications

Voltage Range:	15–28 Volts DC Peak
Maximum Standby Current:	350 $\mu$ A @ 24 VDC (no communication)
Heat Sensor:	135°F fixed temperature electronic thermistor
LED Current:	10 mA @ 24 VDC (“ON”)
Loop Resistance:	40 $\Omega$ maximum

Diameter:	4.0 inches (10.4 cm)
Height:	1.66 inches (4.22 cm)
Shipping Weight:	3.6 oz. (104 g)
Temperature:	0° to 38°C (32° to 100°F)
Relative Humidity:	10% - 93% non-condensing



## Architect/Engineering Specifications

The intelligent combination detector shall be a System Sensor Model 3251. The detector shall include photoelectronic, ionization, and thermal sensing capabilities. The detector shall have a mechanically integrated photoelectronic and ionization shared volume smoke chamber. The detector shall be equipped with dual bicolor light emitting diodes that are visible from the floor. The LEDs will flash green to indicate power and glow red to indicate alarm. The detector shall be capable of applying an output voltage to an optional remote LED

annunciator as an indication of alarm status. It shall be field cleanable and shall have a magnetic test switch. Detector addressing shall be accomplished by means of rotary decade switches, capable of being selected and reset in the field without external programming equipment. The detector shall use a plug-in, low-profile, aesthetically appealing design no taller than 1.7" (base included). Wiring connections shall be by means of a clamping plate and screw in the base.



*Unique Omni Sensor design features a mechanically integrated photoelectronic and ionization shared volume smoke chamber*

## Ordering Information

<u>Part No.</u>	<u>Description</u>	<u>Accessories</u>
3251	Low-profile intelligent plug-in combination photoelectronic, ionization, and thermal detector; must be mounted to the B501 or B210LP base	F110 Retrofit replacement flange for B501B base RA400Z Remote LED annunciator 3 – 32 VDC; fits U.S. single gang electrical box M02-04-01 Test magnet
B210LP	Flanged adapter base	
B501	Flangeless adapter base	
B501BH	Sounder base, includes B501 adapter base	
B224RB	Relay adapter base (6.1" diameter) provides Form C contact for control of auxiliary functions	
B224BI	Isolator adapter base (6.1" diameter) provides isolation of short circuits	

## System Sensor Sales and Service

### System Sensor Headquarters

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Documents On Demand  
1-800-736-7672 x3  
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### System Sensor in Europe

Phone: 011-44-1403-276500  
Fax: 011-44-1403-276501

### System Sensor in Canada

Phone: 905-812-0767  
Fax: 905-812-0771

### System Sensor in China

Phone: 011-86-29-524-6253  
Fax: 011-86-29-524-6259

### System Sensor in Singapore

Phone: 011-65-273-2230  
Fax: 011-65-273-2610

### System Sensor in the Far East

Phone: 011-852-2191-9003  
Fax: 011-852-2736-6580

### System Sensor in Australia

Phone: 011-613-54-281-142  
Fax: 011-613-54-281-172