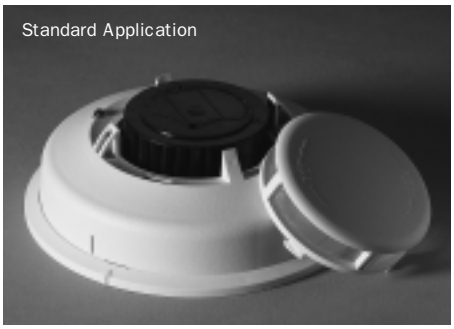
100 Series Direct Wire Smoke Detectors

Models Available

Standard Application Models
2100S
2100TS
2112/24S
2112/24TS

Auxiliary Form C Relay Models
2100TR
2112/24R
2112/24TR

Temporal Pattern Sounder Models
2100AT
2112/24AT
2112/24ATR
2112/24AITR



Product Overview

Full product line of photoelectric, low-profile smoke detectors

SmartCheck™ diagnostics let you visually check sensitivity range

Isolated thermal models

Extensive two-wire compatibility listings

"Twist-off" cleaning on standard models only

Sounder units feature built-in temporal tone

Auxiliary Form C Relay units control elevator recall, door closure

System Sensor's 100 Series smoke detectors may come in a small package but they pack some big benefits. A large, supervised terminal block (patent pending) featuring captured SEMS screws simplifies installation.

SmartCheck™ self-diagnostics allow you to check the detector's sensitivity range by simply looking at the unit. Every ten seconds diagnostic circuitry monitors chamber sensitivity, checking to see if the detector is within its UL specification range. If it is, the LED flashes every ten seconds. If not, the LED stops flashing – a clear sign the detector needs cleaning or servicing. So, to see if a 100 series is within specification range, just look at it. This meets NFPA 72 requirements for sensitivity testing. For sensitivity readout, use MOD 400 accessory and voltmeter.

Heat Detection. Integrated thermal models provide restorable, 135-degree fixed-temperature heat detection. Isolated thermal models feature a fixed-temperature heat sensor that is isolated from the smoke sensor, providing a self-resetting, local audible smoke alarm. In these models only the isolated heat sensor will signal an alarm to the panel. The isolated thermal products are designed for applications where local annunciation, not total facility evacuation is desired.

Sounder Models. A built-in piezoelectric horn (patent pending) in the 100 series sounder models produces the NFPA 72-required, 85dBA temporal tone pattern when the individual detector alarms or when the supply voltage polarity is reversed.

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continued

Standard Application Specifications

Operating Voltage
12/24 VDC (nominal), 8.5 min. to 35 max.

Standby Current
50 µA maximum average

Humidity Range
10% to 93% RH, noncondensing

Fixed Temperature Heat Sensor
135°F electronic thermistor

Diameter
5.5 in. (140mm)

Height
1.9 in. (48mm) with bracket

Weight
5.3 oz. (150 grams)

Model	Thermal	Wiring	Temperature Range	Alarm Current
2100S	No	2-wire	32° to 120°F (0° to 50°C)	100mA max. limited by panel
2100TS	Yes	2-wire	32° to 100°F (0° to 38°C)	100mA max. limited by panel
2112/24S	No	4-wire	32° to 120°F (0° to 50°C)	17mA typical, 23mA max. at 12V; 19mA typical, 25mA max. at 24V
2112/24TS	Yes	4-wire	32° to 100°F (0° to 38°C)	17mA typical, 23mA max. at 12V; 19mA typical, 25mA max. at 24V

Auxiliary Form C Relay Specifications

Auxiliary Contact
Form C

Auxiliary Relay Contact Ratings
1A@30 VDC

Humidity Range
10% to 93% RH, noncondensing

Diameter
5.5 inches (140mm)

Height
1.7 inches (43mm) with bracket

Shipping Weight
6.8 ounces (192 grams)

Model	Thermal	Wiring	Temperature Range	Operating Voltage	Fixed Temperature Heat Sensor	Alarm Current	Standby Current
2100TR*	Yes	2-wire	32° to 100°F (0° to 38°C)	12/24 VDC (nominal) 8.5 min. to 35 max.	135°F electronic thermistor	100mA max. limited by panel	50 µA average 100 µA maximum
2112/24R*	No	4-wire	32° to 120°F (0° to 50°C)	12/24 VDC (nominal) 10 min. to 35 max.	–	28mA typical 35mA max. at 12V 36mA typical 45mA max. at 24V	50 µA average
2112/24TR*	Yes	4-wire	32° to 100°F (0° to 38°C)	12/24 VDC (nominal) 10 min. to 35 max.	135°F electronic thermistor	28mA typical 35mA max. at 12V 36mA typical 45mA max. at 24V	50 µA average

Temporal Pattern Sounder Specifications

Standby Current
50 µA avg., 100 µA max.

Temperature Range
32°–100°F (0°–38°C)

Humidity Range
10%–93% RH, noncondensing

Fixed Temperature Heat Sensor
135°F electronic thermistor

Diameter
5.5 in. (140mm)

Height
2.05 in. (52mm) with bracket

Shipping Weight
7.4 oz. (210 grams)

Model	Thermal	Wiring	Operating Voltage	Alarm Current Consumption	Auxiliary Contact Ratings	Built-In Temp 3 Sounder	Auxiliary Contact
2100AT*	Yes	2-wire	12/24 VDC 8.5 min. to 35 max.	13mA min., 100mA max.	–	85dBA	No
2112/24AT	Yes	4-wire	12/24 VDC 10 min. to 35 max.	49mA typical, 60mA max. at 12V 57mA typical, 65mA max. at 24V	–	85dBA	No
2112/24ATR*	Yes	4-wire	12/24 VDC 10 min. to 35 max.	49mA typical, 60mA max. at 12V 57mA typical, 65mA max. at 24V	1A@30 VDC	85dBA	Form C
2112/24AITR*	Isolated	4-wire	12/24 VDC 10 min. to 35 max.	49mA typical, 60mA max. at 12V 57mA typical, 65mA max. at 24V	1A@30 VDC	85dBA	Form C

*CSFM, MSFM listed

System Sensor Sales and Service

System Sensor Headquarters
3825 Ohio Avenue
St. Charles, IL 60174
Ph: 800-SENSOR2
Fx: 630/377-6495

System Sensor Canada
Ph: 905.812.0767
Fx: 905.812.0771

System Sensor Europe
Ph: 011.44.1403.276500
Fx: 011.44.1403.276501

System Sensor in China
Ph: 011.86.29.524.6253
Fx: 011.86.29.524.6259

System Sensor in Singapore
Ph: 011.65.273.2230
Fx: 011.65.273.2610

System Sensor– Far East
Ph: 011.852.21919003
Fx: 011.852.27366580

System Sensor– Australia
Ph: 011.613.54.281.142
Fx: 011.613.54.281.172

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