RFSM2-A Wireless smoke detector

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Invented for life

- ▶ Reliable photoelectric sensor technology
- ▶ Fixed temperature and rate-of-rise heat sensor
- ▶ Built-in sounder and LED indicator for immediate notification
- ▶ Supervision alerts for sensor health, low battery, and tamper conditions
- ▶ Low current draw for up to 10 years battery life

RADION smoke is a photoelectric wireless detector that continuously senses both smoke, and high and fast rising temperatures caused by fire. The detector uses advanced algorithms to analyze smoke and temperature data, resulting in smarter alarm decisions with fewer nuisance alarms, typically caused by cooking fumes. The detector fully meets the latest UL268 7th edition standard and is ideal for living areas where fire is most likely to start, i.e. living rooms, dining rooms and bedrooms.

System overview

RADION Life Safety
RADION Life Safety offer a complete portfolio for wireless smoke, heat and CO detectors, with excellent RF range, scalability and exceptional battery life required to ensure reliable performance and superior quality. Alarm signals are transmitted to the wireless receiver connected to the control panel. Multiple-device enrollment options and advanced diagnostics make installation and maintenance simple and cost-effective.

Wireless smoke, heat and CO detection
The three-detector portfolio offers an excellent solution for protecting people and property from fire and poisonous carbon monoxide gas.

Functions

Optical photoelectric sensing technology
RADION smoke photoelectric technology quickly senses low energy smoke particles and is sensitive to all domestic fire types, particularly to smoldering fires. In standby, there are no visible nor audible indicators, making it ideal for bedrooms and children's rooms.

Thermistor sensing technology
RADION smoke includes supplemental heat detection, using a fast-response thermistor for sensing high and fast rising temperature conditions caused by fire. Advanced algorithms analyze both smoke and temperature data to make the most accurate alarm decisions.

Fine mesh screen for insect ingress protection
The optical chamber is protected by a sealed fine mesh screen to reduce insect and dust contamination, thus reducing the possibility of false alarms.

Built-in audible alarm
RADION smoke built-in audible alarm sounds at a minimum sound output of 85 dBA at 3 m when fire is detected. The alarm automatically resets and silences, when the alarm condition goes away. For better hearing comfort, the sound level of the alarm increases progressively in Test mode.

Self-monitoring dust compensation

The detector has built-in dust compensation that reduces maintenance costs associated with false alarms throughout the life of the detector. The optical sensor chamber monitors changes in dust levels every 40 seconds and automatically adjusts the photoelectric sensor for increases in dust, as well as for the removal of dust after cleaning.

LED indicators for alarm, low battery and sensor malfunction

When smoke and/or high and fast rising temperatures are detected, the LED flashes and the alarm sounds. When the battery is low or there is a sensor malfunction the LED flashes, the alarm beeps and a message is sent to the receiver connected to the control panel.

Compatibility

Control panel	Receiver
G Series: B9512G/B8512G B Series: B6512/B5512/B4512/B3512 GV4 Series: D9412GV4/D7412GV4 v2.00 or higher	B810 wireless SDI2 bus interface

Tamper detection and notification

The tamper switch detects removal of the detector from its base. When the sensor head is removed, a signal is sent to the control panel via the receiver. The detector also provides an optional means to prevent tampering by requiring a tool to remove the detector from the mounting base.

Large user-friendly test / silence button

The large ergonomic test / silence button allows for frequent testing of the sensor, electronics, battery and alarm, and for silencing false or nuisance alarms. The button is large and concave making it easy to reach out of the way installations with a pole or broom stick, often avoiding the need for ladders or lifts.

Certifications and approvals

Region	Regulatory compliance/quality marks	
USA	UL	UL 268 – Smoke detectors for fire alarm signaling systems
	FCC	T3X-EIHTSD
Canada	IC	1249A-EIHTSD

Installation/configuration notes

Indoor use.
The detector has a twist-on mounting plate with multiple mounting points for easier installation. The batteries are pre-installed with a pull tab, for easier and faster installation.

Parts included

Quantity	Component
1	detector with installed radio module and batteries
2	mounting screws
2	wall anchors

Technical specifications

Electrical

Battery type	Panasonic 3V CR123A (2x)
Typical battery life (years)	up to 10
Frequency (MHz)	433.42

Mechanical

Dimensions (Ø x D)	115 mm x 59 mm (4.5 in x 2.3 in)
Weight	205 g (0.45 lb)

Environmental

Minimum operating temperature* (°C / °F)	4.4 °C (+40 °F)
Maximum operating temperature* (°C / °F)	+55 °C (+131 °F)
Minimum storage temperature* (°C / °F)	-10 °C (+14 °F)
Maximum storage temperature* (°C / °F)	+40 °C (+104 °F)
Operating and storage relative humidity* (%)	0 - 93 % (non-condensing)
Minimum alarm sound	85dBA at 3 m (10 feet)

*Normal operating and storage conditions. Product will perform outside this range as described in applicable regulatory standards, however extended exposure to outside this range may affect product life.

Heat Alarm

Fixed (°C / °F)	+57 °C +/- 2 °C (+135 °F +/- 4 °F)
Rate-of-rise (°C / °F)	8.3 °C > +40 °C (15 °F > +104 °F)

Ordering information

RFSM2-A Wireless smoke detector

Optical photoelectric detector with supplemental dual fixed/rate-of-rise heat detection. For use in North and South America.
Order number **RFSM2-A**