

# SA-01P

Digital Wireless PET Immune  
Passive Infrared Motion Detector



Rosslare's SA-01P is one of a powerful line of high-performance indoor Passive Infrared (PIR) motion detectors, ideal for residential, commercial, and institutional applications where small animals are present.

The SA-01P is completely digital and wireless. It packs advanced features such as a high-powered PET lens and PET analyzing algorithms for differentiating between humans and small animals, walk and RF transmission test functions, self-test functions, movement and speed spectrum analysis, ultra-bright LED cover and wall tamper detection, ultra-low current consumption, and Auto Power Save (APS) technology.

## GENERAL DESCRIPTION

The SA-01P is a high-performance intrusion sensor with advanced design ideal for residential and commercial applications.

The heart of the SA-01P is a high quality pyroelectric infrared energy sensor, a PET lens with fuzzy logic implementing a special algorithm to improve human detection while ignoring pets and other small animals, and an advanced nano-watt microcontroller.

The SA-01P's many features include an A to D signal analyzer with temperature compensation, an integral RF transmitter with low profile internal antenna, an LED Walk Test, an RF transmission test, dynamic and static Power Save Modes (PSM), selectable pulse counting, cover and wall tamper detection, and automatic low battery detection.

The SA-01P uses a widely available lithium 1300 mAh high power battery and is compatible with Rosslare Security products from the related series (H-Series: 868.35 MHz, G-Series: 433.92 MHz).

## MAIN FEATURES

- Power level discriminator: A special lens combined with a powerful algorithm ignores small- to medium-sized animals while maintaining a high level of human detection
- Environment digital temperature compensation to reduce false alarms

- Adaptive filter compensates for changes in a detected object's speed
- Internal calibration following mounting height installation
- Internal plastic element sealing for insect and air turbulence immunity
- Cover tamper switch and back tamper switch (selectable by wire) for increased security
- 3V 1300 mAh lithium battery lasts for over three years at normal use. Low battery warning transmitted to panel
- Optional wall and ceiling mount bracket (AS-02)

## PROFESSIONAL GRADE FEATURES

- Selectable energy level sensitivity: High or Low by jumper selection
- Continuous monitoring: Sends visual alerts in case of malfunction or temperature out-of-range alerts
- Fuzzy logic algorithms energy detection system for improved detection and reduced false alarms
- Easy Walk Test and RF Test modes: Visual indication and automatic disable
- Advanced micro-controller electronics and algorithms for superior movement speed spectrum analysis
- Ultra resistant to transient shock, ESD, and RFI interference

# SPECIFICATIONS

## ELECTRICAL SPECIFICATIONS

■ Battery Type	CR123 (3 V/1300 mAh)
■ Current Consumptions	Standby 15 $\mu$ A, 10 mA transmission
■ Battery Life (nominal)	3 years (150 tr/day)
■ Detector Type	Dual pyro IR element (IR filter 5 $\mu$ m $\div$ 14 $\mu$ m)
■ Pet Immune	Up to 25 kg (55.1 lb)
■ Temperature Compensation	Digital dual slope (+/- 1°C)
■ Speed Detect	0.2 m/s $\div$ 5 m/s, $\Delta$ t = 1.1°C (0.66 ft/s $\div$ 16.4 ft/s, $\Delta$ t = 2° F)
■ Sensitivity	2 levels of fuzzy logic (jumper setting)
■ Arming Timer (two modes)	Normal: Two minutes following last alarm Dynamic: Two minutes after motion detection retriggered, Auto Power Save; disabled during Walk Test mode
■ Alarm Signaling	Red LED 2 seconds on event transmission: alarm, tamper, low battery
■ Tamper Switches	Back and cover tamper
■ Supervisory Signals	Electronic malfunction or temperature out of range is indicated by a flashing LED
■ RF Transmission	20 minute interval automatic supervision transmission including low battery transmit and indication

## OPTICAL SPECIFICATIONS

■ Lens Type	Pet immune multi-zone, high-density polytilan type
■ Optical Filter	White light protection
■ Vertical Adjustment	By slot (+/- 2°)
■ Lens Coverage	14 x 14 m (46 x 46 ft)
■ View Angle	88°

## ENVIRONMENTAL SPECIFICATIONS

■ Operating Environment	Indoor use only
■ Operating Temperature	-10°C to 60°C (14° F to 140°F)
■ Operating Humidity	0 to 95% (non-condensing)
■ RFI Protection	>20 V/m up to 1000 MHz

## PHYSICAL SPECIFICATIONS

■ Dimensions (H x W x D)	90 x 65 x 52 mm (3.5 x 2.5 x 2.2 in.); fits US Gang box
■ Weight	84.2 g (2.97 oz.)

## SYSTEM COMPONENTS

The SA-01P Wireless PIR is compatible with Rosslare's wireless control panels and accessories, including: HomeLogiX™, Elderly Phone (SP-03V2), voice communicators, safety sensors, sirens, and remote controls.

## PRODUCT WARRANTY

2-Year Limited Product Warranty

## ABOUT ROSSLARE SECURITY

Rosslare Security Products, a division of Rosslare Enterprises Ltd., has been manufacturing high-quality security products since 1980. The company's three main lines – Access Control, Intrusion Detection and Guard Patrol – together with a growing product range have transformed Rosslare Security into a major worldwide force in security. Rosslare holds itself to the highest standards of customer service and manufacturing (ISO 9001:2008, ISO 14001:2004, ISO 13485:2003). The company complies with the EU Directive 2002/95/EC on Restriction of Hazardous Substances (RoHS).

[www.rosslaresecurity.com](http://www.rosslaresecurity.com)

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