

## PYR-2023

### Dual PIR/Microwave Motion Detector with Anti-Masking

Rosslare's PYR-2023 high performance PIR and microwave motion detector is ideal for residential, commercial and institutional applications. It combines PIR and breakthrough microwave technology to prevent unwanted detection of movement outside the coverage area. This highly sensitive detector features state-of-the-art spherical lens optics with mirror look-down zones, automatic mode selection capability, and anti-masking.

The PYR-2023's motion detection is fully digital. Complex algorithms provide superior catch performance and false alarm immunity, and the unit is encased in an elegantly designed modern shell.

### General Description

Rosslare's PYR-2023 was designed with a focus on high quality and reliability as the first priority. The microwave sensor unit improves accuracy and distance detection.

Its highly sensitive sensor is based on a state-of-the-art optics with an advanced dual-element pyro-sensor and 12 meter broad coverage. The optic pattern includes look-down (creep) zones protection using a mirror and curtain zones with a unique snap-in curtain mask.

The PYR-2023's features include: an internal digital microcontroller with sophisticated algorithms for superior motion analysis and false alarm immunity, selectable pulse counting, and an A-to-D signal analyzer with temperature compensation.

The PYR-2023 has cover and wall tamper detection, and jumpers for selecting sensitivity and LED operation.



### Main Features

- 12 m (39 ft.) broad coverage
- Digital motion analysis and real-time A-to-D processing with internal ambient temperature compensation
- Microwave sensor unit for improved accuracy and distance in detection
- Unique "fast" curtain mask plastic for narrow detection
- High-sensitivity dual-element pyro-sensor made by world-leading manufacturers
- Attractive curved design, with a professional look and feel
- Optional swivel mounting bracket for mounting in flexible locations (BR-21)

### PROFESSIONAL GRADE FEATURES

- Selectable pulse counting for normal or harsh environments
- Advanced spherical lens with SSFL mirror look-down, enabling detection as close as 50 cm
- Anti mask feature for high security applications OR, AND detection with automatic select
- Draft and insect immunity with a sealed chamber for the optical components
- LED for walk test that can be disabled after installation
- Meets or exceeds the USA Standard: UL 639, Intrusion Detection Units
- Meets or exceeds CENELEC 50131-2-2 PIR Standard, Security Grade 2, and Environmental Grade 1

# PYR-2023 Dual PIR/Microwave Motion Detector with Anti-Masking



## Product Specifications

OPTICAL SPECIFICATIONS	
• Lens type	Spherical with mirror SSFL look-down and adapter for curtain mask
• Field of view	115° horizontal; 100° vertical
• Max coverage	12 m (39 ft) radius
• Vertical adjustment	No
• Mounting height	Selectable from 2.0 to 2.8 m
ELECTRICAL SPECIFICATIONS	
• Input voltage	9-16 VDC
• Input current	15mA @ 12VDC nominal
• LEDs	Red - Alarm; Yellow – PIR; Green - MW
• Alarm signals	Red LED two seconds, alarm output (35V DC100mA max N.C.)
• Microwave detector	Doppler technology
• MW Frequency	10.525 GHz
• MW output level	13 dBm EIRP
• PIR detector	Dual-element low noise pyro-electric sensor
• Sensitivity modes	Low and high interchangeable modes, jumper selectable
• Sensitivity	$\Delta T = 1.1^{\circ}\text{C}$ @ 0.9 m/sec ( $\Delta T = 2^{\circ}\text{F}$ @ 3 ft/sec)
• Tamper detection	Cover and optional back (jumper selectable)
ENVIRONMENTAL SPECIFICATIONS	
• Operating environment	Indoor use
• 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
ENVIRONMENTAL SPECIFICATIONS	
• Dimensions (H x W x D)	127 x 80 x 63 mm (5 x 3.15 x 2.48 inch)
• Weight	130 g (0.287 lbs)

## System Components

The PYR-2023 is compatible with Rosslare's AuraSys™ P6 intrusion alarm control panels and accessories, including LED and LCD keypads, voice communicators, safety sensors, sirens, and remote controls.



L-2



L-4 PCB



L-6C



HLX-40

## Additional Information

The PYR-2023 is a high-quality electronic product developed and manufactured under ISO9001:2008 and is covered by RSP 2-year Limited Product Warranty. Please visit our website for documentation and sales information: [www.rosslaresecurity.com](http://www.rosslaresecurity.com)



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