

The IRM-23 Dual-Tech Indoor Motion Sensor Series

Enhancing Detection Accuracy and Eliminating False Alarms



- PIR and microwave sensors
- High sensitivity
- Extensive RF range
- Pet immunity
- Long battery life

The IRM-23 Series introduces dual-tech indoor motion sensors that combine one passive infrared (PIR) sensor with a microwave sensor to powerfully enhance the sensitivity and accuracy of detection. These detectors trigger alarms only when both their PIR and microwave sensors are tripped. This mechanism to dually verify alarm conditions radically reduces the detectors' susceptibility to environmental disturbances and prevents nuisance alarms. The IRM-23 Series' pet-immune models further provide pet immunity up to 27 kg (59 lbs) to effectively rule out false alarms.

The IRM-23 Series' F1 models, which adopt Climax's cutting-edge F1 technology to deliver extensive RF communication range, can be flexibly deployed across large or complex premises to monitor suspicious movements. Compatible with Climax's F1 control panels, the IRM-23 Series' F1 models also feature fast signal transmission and up to 10 years of battery life.

The microprocessor-controlled IRM-23 models, whose adaptive coverage area ranges from three to 18 meters, employ the advanced ADSP algorithms to maintain stable and sensitive detection regardless of changes in the environment. Automatic power saving mechanism and low battery detection reinforce the sensors' cost-effectiveness and reliability. The IRM-23 Series also offers F2 and standard models, which can be incorporated into Climax's F2 and standard alarm systems respectively.

Features

- Combines one PIR sensor with a microwave sensor
- Activates alarms only when both the detector's PIR and microwave sensors are tripped
- Extensive RF range (F1 models)
- Fast signal transmission (F1 models)
- Advanced adaptive digital signal processing (ADSP) algorithms
- High RFI/EMI immunity
- Adaptive detection range: 3 to 18 meters
- Detection angle: 110° angle
- Pet immunity up to 27 kg (59 lbs) (pet-immune models)
- Long battery life
- Automatic power saving mechanism
- Low battery detection
- Temperature compensation
- Wall- or corner-mounted
- Self-supervision and self-testing
- Tamper protection against sabotage
- LEDs display operational status
- Low and compact profile

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Specifications

IRM-23-F1 Series

Model name	IRM-23SSL-F1/ IRMP-23SSL-F1	IRM-23SL-F1/ IRMP-23SL-F1	IRM-23-F1/ IRMP-23-F1
Power source	L91 1.5V lithium battery x 2	CR123A 3V lithium battery x 1	1.5V alkaline battery x 2
Battery life*	9.07 years (433MHz) 10.04 years (868.6375MHz)	4.75 years (433MHz) 4.83 years (868.6375MHz)	5.42 years (433MHz) 5.79 years (868.6375MHz)
Detection method	Single (two elements) PIR and microwave pulse Doppler		
Power input	3V _{DC}		
Current draw (standby)	30uA		
Current draw (active)	30mA max.		
Installation height	1.9 m to 2 m		
Available frequencies	433MHz/868.6375MHz		
Microwave frequency	10.525 GHz		
Operating temperatures	-10°C to +45°C		
Operating humidity	Up to 95% non-condensing		
Dimensions	63.3 mm x 112.5 mm x 62 mm		

IRM-23-F2 Series

Model name	IRM-23SSL-F2/ IRMP-23SSL-F2	IRM-23SL-F2/ IRMP-23SL-F2	IRM-23-F2/ IRMP-23-F2
Power source	L91 1.5V lithium battery x 2	CR123A 3V lithium battery x 1	1.5V alkaline battery x 2
Battery life*	9.07 years	4.75 years	5.42 years
Detection method	Single (two elements) PIR and microwave pulse Doppler		
Power input	3V _{DC}		
Current draw (standby)	30uA		
Current draw (active)	30mA max.		
Installation height	1.9 m to 2 m		
Available frequencies	868.6375MHz		
Microwave frequency	10.525 GHz		
Operating temperatures	-10°C to +45°C		
Operating humidity	Up to 95% non-condensing		
Dimensions	63.3 mm x 112.5 mm x 62 mm		

IRM-23 Standard Series

Model name	IRM-23SSL/ IRMP-23SSL	IRM-23SL/ IRMP-23SL	IRM-23/ IRMP-23
Power source	L91 1.5V lithium battery x 2	CR123A 3V lithium battery x 1	1.5V alkaline battery x 2
Battery life*	8.63 years (433MHz) 7.65 years (868.35MHz) 5.89 years (868.6375MHz)	4.51 years (433MHz) 3.97 years (868.35MHz) 3.03 years (868.6375MHz)	5.18 years (433MHz) 4.64 years (868.35MHz) 3.64 years (868.6375MHz)
Detection method	Single (two elements) PIR and microwave pulse Doppler		
Power input	3V _{DC}		
Current draw (standby)	30uA		
Current draw (active)	30mA max.		
Installation height	1.9 m to 2 m		
Available frequencies	433MHz/868.35MHz/868.6375MHz		
Microwave frequency	10.525 GHz		
Operating temperatures	-10°C to +45°C		
Operating humidity	Up to 95% non-condensing		
Dimensions	63.3 mm x 112.5 mm x 62 mm		

*Note: Battery backup time varies by use and configuration.

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Ordering Information

IRM-23-F1 Series (compatibility with F1 control panels and extensive RF range)

IRM-23-F1	Alkaline battery power
IRM-23SL-F1	Lithium battery power
IRM-23SSL-F1	Long battery life
IRMP-23-F1	Pet immunity and alkaline battery power
IRMP-23SL-F1	Pet immunity and lithium battery power
IRMP-23SSL-F1	Long battery life and pet immunity

IRM-23-F2 Series (compatibility with F2 control panels)

IRM-23-F2	Alkaline battery power
IRM-23SL-F2	Lithium battery power
IRM-23SSL-F2	Long battery life
IRMP-23-F2	Pet immunity and alkaline battery power
IRMP-23SL-F2	Pet immunity and lithium battery power
IRMP-23SSL-F2	Long battery life and pet immunity

IRM-23 Standard Series (compatibility with standard control panels)

IRM-23	Alkaline battery power
IRM-23SL	Lithium battery power
IRM-23SSL	Long battery life
IRMP-23	Pet immunity and alkaline battery power
IRMP-23SL	Pet immunity and lithium battery power
IRMP-23SSL	Long battery life and pet immunity