

## MAGIC Dual Motion Detectors



MAGIC PIR and Dual motion detectors, by acre security, are an exciting new advance in security that provide the most reliable, convenient and cost effective solution for industry leading catch performance and false alarm immunity. The detectors feature a modern, slim design and share the same low-profile housing so intruders cannot tell which type of detector they are faced with. MAGIC PIR and Dual detectors are offered in either 12m or 18m range and are optionally available with integrated anti-masking technology.

The PDM-IXx12 and PDM-IXx12T dual motion detectors offer reliable detection of intruders and high false alarm immunity. Their performance is based on an improved version of the acre security Matchtec algorithm, which combines passive infrared (PIR) and microwave (MW) channels to make extraordinarily accurate decisions on motion within their detection zone.

Intelligent processing routines analyse the relative strength of the IR and MW signals received from a moving object in order to make sound decisions. It is even possible to use multiple detectors in close proximity to each other, since the algorithm reduces interference between the MW modules. This increases flexibility in selecting the installation site.

Flexible installations can be carried out quickly and error-free with Auto Walk Test, which ensures that the sensors are operating correctly on the acre Intrusion system.

### Recommended Accessories

- ✓ **Mounting Bracket**  
The PZ-MBG2 mounting bracket provides convenient cable guiding within the bracket and can be used for all MAGIC Mirror models for both wall and ceiling mounting.
- ✓ **Pet-Clip**  
With the help of PO-CL pet-clip, the detector ignores the motion caused by animals (up to 20kg) and reduces the likelihood of false alarms.

## Key Features

- ✓ Unmatched detection performance based on patented MAGIC mirror technology
- ✓ High immunity against false alarms
- ✓ 12m volumetric optics with undercrawl protection – 20m gapless curtain (option)
- ✓ Flexible, fast and error-free installation with sensitivity adjustment and pet immunity (option)
- ✓ Compliance with latest approval standards such as VdS, VSÖ, INCERT, NF, SBSC, etc.
- ✓ Modern and elegant design
- ✓ Low power consumption

# Features & Benefits

## Reliable Detection

Thanks to the patented MAGIC mirror technology, intruders are detected effectively and reliably. The new double-mirror principle provides homogeneous coverage and sensitivity to all areas within the detection field. The proven and enhanced Matchtec algorithm supports the innovative mirror optic.

## High Hurdles for Intruders

A detector cannot be identified by its housing. Potential intruders – when confronted with MAGIC motion detectors – must assume the highest security level (e.g. EN 50131-2-4 Grade 3) irrespective of the actual detector type.

## Low Current Consumption

State of the art energy concepts and electronic components provide low current consumption. This decreases energy costs across the years of utilisation and also enables more cost efficient uninterrupted power supply units (like batteries) to be used in the intrusion panels.

## High Security Level

The integrated anti-mask function reliably detects any potential covering of the detector. In addition to this, the sophisticated mirror design ensures full under-crawl protection. Therefore, MAGIC DUAL detector PDM-IXx12T complies with the highest security standards, such as VdS Class C, EN 50131-2-4 Grade 3 and many more.

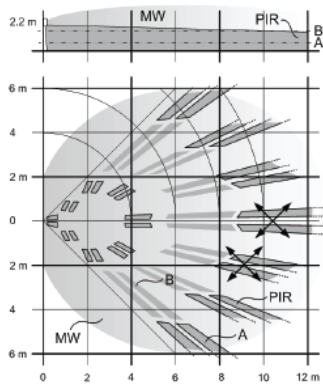
## Error-free Installation

The detectors are ready for use with acre Intrusion Panels, omitting the time-consuming and error-prone resistor configuration. PDM-IXx12/T can also be adapted to other intrusion panels by simply replacing the pre-fitted resistors with the applicable values.

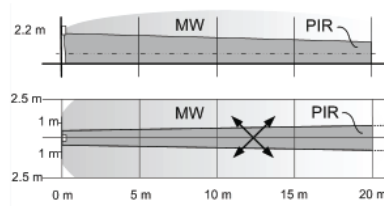
## Fast & Easy Set-Up

The new Auto Walk Test feature accelerates the installation of the detector. Verifying the installation and operation of the detector by means of a Walk Test no longer requires repeated openings of the detector nor adapting DIP switch settings.

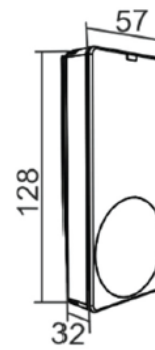
Volumetric mirror (standard)



PO-C20 curtain mirror (option)



Dimensions



## Technical Data

Detection Characteristic / Range	Volumetric / 12m
Optical System	MAGIC mirror
Pet Immunity	Yes (optional)
Microwave (MV) Frequencies	
○ PDM-IXA12/T	10.525GHz
○ PDM-IXD12/T	9.35GHz
○ PDM-IXE12/T	10.587GHz
Power Supply (nom. 12VDC)	9VDC ~ 16VDC
○ Max. Ripple (0Hz ~ 100Hz)	1.0VSS
○ Voltage Control	Alarm at 8.0VDC ± 0.5VDC
Power Consumption (8VDC ~ 16VDC)	
○ PDM-IXx12 Idle State	4.8mA (rms), 7.1mA (max peak)
LED ON	6.7mA (rms), 9.0mA (max peak)
○ PDM-IXx12T Idle State	6.3mA (rms), 8.5mA (max peak)
LED ON	8.3mA (rms), 10.5mA (max peak)
Control Inputs	Low ≤ 1.5VDC / High ≥ 3.5VDC R <sub>Pull-up</sub> (internal) = 470kΩ
Outputs	Open collector, R=35Ω, I <sub>max</sub> =120mA
Walk Speeds	
○ PDM-IXx12 (Volume mirror / Curtain mirror PO-C20)	0.2m/s ~ 3.0m/s
○ PDM-IXx12T (Volume mirror / Curtain mirror PO-C20)	0.1m/s ~ 4.0m/s
Algorithm	MATCHTEC
EoL Resistors (pre-fitted)	
○ R <sub>I</sub>	4.7kΩ ±5%, 250mW
○ R <sub>F</sub>	2.2kΩ ±5%, 250mW
○ R <sub>EOL</sub>	4.7kΩ ±5%, 250mW

<b>Environmental Conditions</b>	
○ Operating Temperature	-10°C ~ 55°C
○ Storage Temperature	-20°C ~ 60°C
○ Air Humidity (EN 60721)	< 95%rh, non-condensing
○ EMC-Resistance up to 2.7GHz	10V/m
○ Housing Protection Category (EN 60529, EN 50102)	IP41 / IK02
<b>Colour</b>	RAL 9003 & RAL 9005
<b>Approvals</b>	
○ PDM-IXA12 / PDM-IXD12 / PDM-IXE12	VdS Class B, EN 50131-2-4 Grade 2
○ PDM-IXA12T / PDM-IXD12T / PDM-IXE12T	VdS Class C, EN 50131-2-4 Grade 3
○ PDM-IXA12-B	VdS Class B, EN 50131-2-4 Grade 2
○ PDM-IXA12T-B	VdS Class C, EN 50131-2-4 Grade 3

## Ordering Information

TYPE	ART. NO.	DESCRIPTION	WEIGHT*
PDM-IXA12	V54531-F113-A100	DUAL Detector 10.525GHz	0.138kg
PDM-IXA12-B	V54531-F113-A1-N	DUAL Detector 10.525 GHz, Black	0.138kg
PDM-IXD12	V54531-F124-A100	DUAL Detector 9.35GHz	0.138kg
PDM-IXE12	V54531-F114-A100	DUAL Detector 10.587GHz	0.138kg
PDM-IXA12T	V54531-F116-A100	DUAL Detector 10.525GHz with Anti-mask	0.140kg
PDM-IXA12T-B	V54531-F116-A1-N	DUAL Detector with AM, 10.525 GHz, Black	0.140kg
PDM-IXD12T	V54531-F115-A100	DUAL Detector 9.35GHz with Anti-mask	0.140kg
PDM-IXE12T	V54531-F117-A100	DUAL Detector 10.587GHz with Anti-mask	0.140kg
PO-C20	V54539-F122-A100	PO-C20 Curtain Mirror for PDM-I12 (4 pcs)	0.033kg
PZ-MBG2	V54539-F124-A100	PZ-MBG2 Mounting Bracket G2 for PDM	0.051kg
PO-CL	V54539-F126-A100	PO-CL Pet Clip for PDM-I12 (10 pcs)	0.050kg
PO-FM	V54530-H101-A100	PO-FM Flush Mount Housing Base PDM-I12	0.040kg

\* Total weight of the product inclusive of the weight of its accessories and packaging.