MAGIC PIR MOTION DETECTOR





Vanderbilt's MAGIC PIR and Dual motion detectors 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-I12 and PDM-I12T PIR motion detectors utilize the patented MAGIC Mirror technology, which sets new standards in detection sensitivity and enables an extremely compact design. The innovative dual mirror design increases the focal length, which gives the detectors more homogeneous detection sensitivity, especially for wider areas. A new white-light filtering system reduces false alarms caused by external light sources such as car headlights or lamps.

Together with the enhanced Visatec algorithm, both MAGIC motion detectors features a volumetric detection range of 12m. If required, the detectors can be optionally retro-fitted to long-range or curtain optics of up to 20m. For added peace of mind, the PDM-I12T is offering an integrated anti-masking technology (monitoring against covering).

Flexible installations can be carried out quickly and error-free due to features like Auto Walktest and the new End-of-Line concept (EoL).

Key Features include:

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

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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 further enhanced Visatec algorithm supports the innovative mirror optic.

■ 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 PIR detector PDM-I12T complies with the highest security standards, such as VdS Class C, EN 50131-2-2 Grade 3 and many more.

■ 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 50131-2-2 Grade 3) irrespective of the actual detector type.

■ Error-free installation

Due to pre-fitted End-of-Line (EoL) resistors, the detectors are ready for use with Vanderbilt's alarm panels (SPC and Sintony). Thus, the time-consuming and error-prone resistor configuration can be omitted. PDM-I12/T can also be adapted to other intrusion panels by simply replacing the pre-fitted resistors with numerous optionally available plugin Fol. boards.

Low current consumption

State of the art energy concepts and electronic components provide low current consumption. Not only energy costs are decreased across the years of utilisation but also more cost efficient uninterrupted power supply units (like batteries) can be used in the intrusion panels.

■ Fast & easy set-up

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

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.

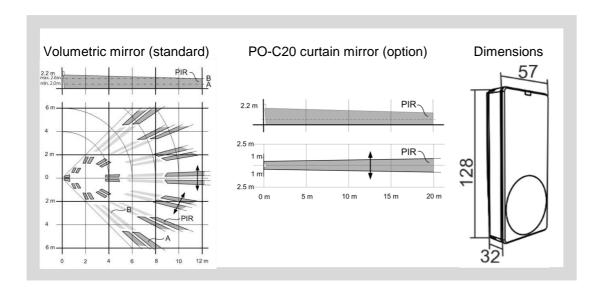
■ Pet-Clip

With the help of PO-CL pet-clip the detector ignores the motion caused by animals (up to 20kg) and thus reduces the likelihood of false alarms

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Technical Data

Detection characteristic / range	Volumetric / 12m MAGIC mirror	
Optical system		
Pet immunity	Yes (optional)	
Power supply (nom. 12V _{DC})	9V _{DC} ~ 16V _{DC}	
– Max. ripple (0Hz ~ 100Hz)	1.0V _{SS}	
 Voltage control 	Alarm at $8.0V_{DC} \pm 0.5V_{DC}$	
Power consumption (8V _{DC} ~ 16V _{DC}) - PDM-I12		
Idle state	2.5mA (rms), 2.8mA (max peak)	
LED ON	3.4mA (rms), 4.7mA (max peak)	
– PDM-I12T		
Idle state	3.9mA (rms), 4.6mA (max peak)	
LED ON	5.9mA (rms), 6.6mA (max peak)	
Control inputs	Low $\leq 1.5 V_{DC}$ / High $\geq 3.5 V_{DC}$	
	$R_{Pull-up}$ (internal) = 470k Ω	
Walk speeds - PDM-I12		
Volume mirror / Curtain mirror PO-C20 – PDM-I12T	$0.2^{\rm m}/_{\rm s} \sim 3.0^{\rm m}/_{\rm s}$	
Volume mirror / Curtain mirror PO-C20	$0.1^{\rm m}/_{\rm s} \sim 4.0^{\rm m}/_{\rm s}$	
Algorithm	VISATEC	
EoL resistors (pre-fitted)		
$-R_{l}$	4.7kΩ ±5%, 250mW	
$-R_{F}$	$2.2k\Omega \pm 5\%$, $250mW$	
- R _{EOL}	4.7kΩ ±5%, 250mW	
Environmental conditions		
 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 	10 ^V / _m	
 Housing protection category (EN 60529, EN 50102) 	IP41 / IK02	
Colour	RAL9003	
Approvals		
– PDM-I12	VdS Class B, EN 50131-2-2 Grade 2	
- PDM-I12T	VdS Class C, EN 50131-2-2 Grade 3	
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MAGIC PIR MOTION DETECTOR



Ordering Information

Art. No.	Description	Weight*
V54530-F114-A100	PDM-I12 PIR Detector	0.126kg
V54530-F105-A100	PDM-I12T PIR Detector with Anti-mask	0.128kg
V54539-F122-A100	PO-C20 Curtain Mirror for PDM-I12 (4 pcs)	0.033kg
V54539-F124-A100	PZ-MBG2 Mounting Bracket G2 for PDM	0.051kg
V54539-F125-A100	PZ-CA 1/4" Adapter for Camera Bracket (4 pcs)	0.022kg
V54539-F126-A100	PO-CL Pet Clip for PDM-I12 (10 pcs)	0.007kg
V54530-H101-A100	PO-FM Flush Mount Housing Base PDM-I12	0.040kg
V54530-H102-A100	PO-MHB12 Metalized Housing Base PDM-I12	0.049kg
V54539-F127-A100	EOL PCB R _F =4k7 R _I =2k2 R _{EoL} =2k2 (100 pcs)	0.151kg
V54539-F127-A100	EOL PCB R _F =2k2 R _I =4k7 R _{EoL} =2k2 (100 pcs)	0.151kg
V54539-F127-A200	EOL PCB R _F =12k R _I =1k R _{EoL} =1k (100 pcs)	0.151kg
V54539-F127-A300	EOL PCB R _F =12k R _I =6k8 R _{EoL} =4k7 (100 pcs)	0.151kg
V54539-F127-A400	EOL PCB R _F =1k R _I =3k3 R _{EoL} =3k3 (100 pcs)	0.151kg
V54539-F127-A500	EOL PCB R _F =48k R _I =16k2 R _{EoL} =16k2 (100 pcs)	0.151kg
V54539-F127-A600	EOL PCB R _F =48k R _I =48k R _{EoL} =48k (100 pcs)	0.151kg
	V54530-F114-A100 V54539-F122-A100 V54539-F124-A100 V54539-F125-A100 V54539-F125-A100 V54530-H101-A100 V54530-H102-A100 V54539-F127-A100 V54539-F127-A100 V54539-F127-A200 V54539-F127-A300 V54539-F127-A300 V54539-F127-A500	V54530-F114-A100 PDM-I12 PIR Detector V54530-F105-A100 PDM-I12T PIR Detector with Anti-mask V54539-F122-A100 PO-C20 Curtain Mirror for PDM-I12 (4 pcs) V54539-F124-A100 PZ-MBG2 Mounting Bracket G2 for PDM V54539-F125-A100 PZ-CA 1/4" Adapter for Camera Bracket (4 pcs) V54539-F126-A100 PO-CL Pet Clip for PDM-I12 (10 pcs) V54530-H101-A100 PO-FM Flush Mount Housing Base PDM-I12 V54530-H102-A100 PO-MHB12 Metalized Housing Base PDM-I12 V54539-F127-A100 EOL PCB R _F =4k7 R _{I=2} k2 R _{EoL=2} k2 (100 pcs) V54539-F127-A200 EOL PCB R _F =12k R _{I=1} k R _{EoL=1} k (100 pcs) V54539-F127-A300 EOL PCB R _{F=1} 12k R _{I=6} k8 R _{EoL=4} k7 (100 pcs) V54539-F127-A400 EOL PCB R _{F=1} 12k R _{I=6} k8 R _{EoL=4} k7 (100 pcs) V54539-F127-A400 EOL PCB R _{F=1} 1k R _{I=3} k3 R _{EoL=3} k3 (100 pcs)

^{*} Total weight of the product inclusive of the weight of its accessories and packaging.

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