Motion Detectors

From outdoor and pet-friendly digital motion detectors to analog motion detectors, the Paradox series of motion detectors combine advanced features and patented technologies to provide a high level of detection and false alarm prevention.

The Digigard (DG55, DG65, DG75 and DG85 series), Elegance (DG483), Digital Vision (525D) and Paradome DG466 line of motion detectors offer patented digital motion detection. Developed for high-security applications, this advanced circuit design performs direct analog to digital conversion of the PIR sensor's signal using a powerful, high-speed microprocessor-based digital IC. Completely software-driven, true digital motion detection converts, amplifies and processes the sensor's low-level signal in the digital domain without any analog circuitry (no saturation, no loss of data and no noise). This unique technology provides increased accuracy, reliability and superior false alarm immunity.

The Digigard series includes the DG85 series Outdoor Digital Dual-Optic High-Performance PIR that combines a special weatherproof design and the proven technology of our DG75 Digital Dual-Optic High-Performance PIR (40kg/90lb True Pet Immunity) to provide the same reliable protection—outdoors. With its patented optics and digital processing technologies, the world-renown Digigard DG75 is a reliable false-alarm free motion detector with unmatched pet immunity.

Our patented Auto Pulse Signal Processing transforms the signal energy to a pulse output to determine if the progression of the detected occurrence corresponds to an alarm condition. Energy from the signals are measured and stored in memory until a minimum level is reached. The processor then rejects signals that do not meet its required specifications for generating an alarm.

Whatever the application, there's a Paradox motion detector that will suit your needs and surpass your expectations.

Digital Motion Detectors

Features Common to All Digital Motion Detectors
- Patented* Digital Motion Detection (see above)
- Patented Auto Pulse Signal Processing
- Digital Shield algorithm software with adjustable sensitivity
- Single or Dual Edge Processing†
- Automatic Temperature Compensation
- Metal shield maximizes protection from EMI and RFI signals†‡
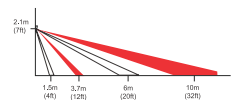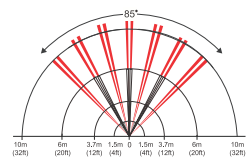- Solid-state relay
- Anti-tamper switch
    * The patent does not apply to the DG467 (see page 51)
   † Except DG466 (see page 51)
    ‡ Except DG483 (see page 49) and DG467 (see page 51)

DG483 | Elegance Digital Motion Detector
- Dual element sensor
- 10m x 10m (32ft x 32ft); 85° viewing angle
- Unique simple design
- Small size 8.5cm x 5.2cm x 3.5cm (3.3in x 2in x 1.4in)
- Includes corner bracket
- Fresnel FLAT Lodif segment lens array: 11m X 11m (35ft X 35ft); 85°
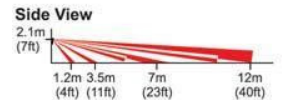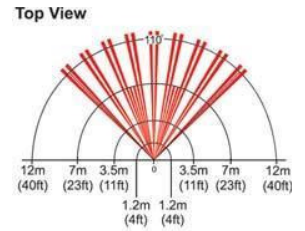- See Features Common to All Digital Motion Detectors above
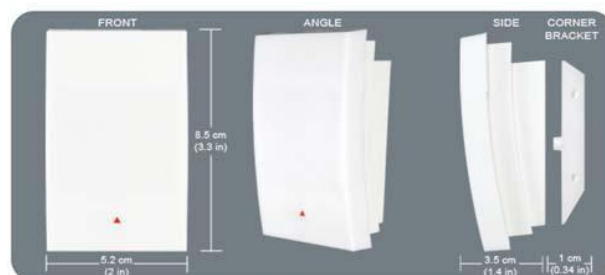
DG55 | Dual Element Digital Motion Detector
- Dual element sensor
- 12m x 12m (40ft x 40ft); 110° viewing angle
- See Features Common to All Digital Motion Detectors on page 49

DG65 | Quad Element Digital Motion Detector
- Digital Dual Opposed Detection
- Interlock Sensor Geometry
- Quad element sensor
- 12m x 12m (40ft x 40ft); 110° viewing angle
- See Features Common to All Digital Motion Detectors on page 49

DG75 | Digital Dual-Optic High-Performance PIR (40kg/90lb True Pet Immunity)
- Extremely reliable and false-alarm free
- Dual optics (2 dual opposed element sensors)
- Provides superior pet immunity using a patented combination of advanced optics and digital processing technologies
- Immune to pets weighing up to 40kg (90lb)
- Digital Dual Opposed Detection
- 11m x 11m (35ft x 35ft); 90° viewing angle
- See Features Common to All Digital Motion Detectors on page 49
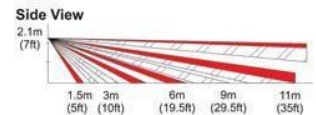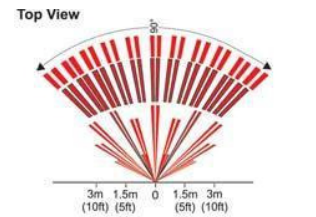
## DG85 | Outdoor Digital Dual-Optic High-Performance PIR
Same features as the DG75 (see above) plus a special weatherproof design:
- The DG85 series is available with one of three lenses: Pet Array, Horizontal Curtain Beam or Vertical Curtain Beam. See PMD85 / DG85 Lenses on page 53 for more details
- Impact and temperature resistant casing
- Operates at -35°C to +50°C (-31°F to +122°F)
- Casing lined with an injected rubber gasket
- UV protected lens
- Digital Dual Opposed Detection
- Dual Optical Filtering System
- Multi-level sensitivity adjustment
- Two operational modes (addressable for the EVO series or conventional relay operation)
- Can be used with the Heavy Duty Outdoor Swivel Bracket (SB85)

## 525D | Microwave and Infrared Digital Motion Detector
- Digital microwave detection
- 3 LED indicators display type of movement
- Once the PIR validates that a signal meets alarm conditions, Digital Vision uses microwave signals to confirm the results before generating an alarm
- Adjustable microwave range
- 14m x 14m (45ft x 45ft); 90° viewing angle
- See Features Common to All Digital Motion Detectors on page 49
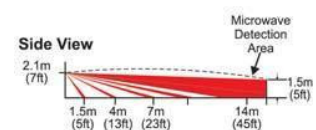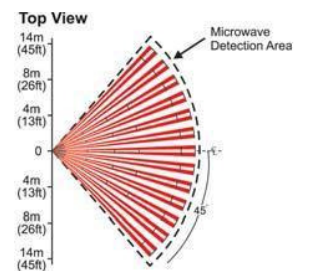
DG466 | Directional Ceiling-Mounted Digital Motion Detector

- Two dual element sensors (determine if movement is incoming or outgoing)
- One incoming detection relay output
- One outgoing detection relay output
- Adjustable return delay timer (exit and reenter without causing an alarm)
- 67cm x 4.8m (2.2ft x 16ft) and 60cm x 4.8m (2ft x 16ft)
- See Features Common to All Digital Motion Detectors on page 49
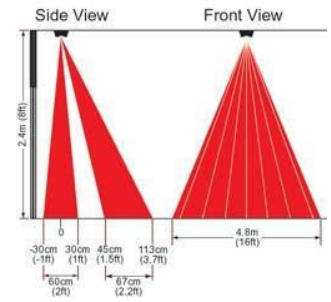
DG467 | 360° Ceiling Mounted Motion Detector

- See full description on page 21


Analog Motion Detectors

Features Common to All Analog Motion Detectors

- Patented Auto Pulse Signal Processing
- Automatic Temperature Compensation
- Metal shield maximizes protection from EMI and RFI signals
- Dual element sensor
- Anti-tamper switch

476+ | PIR with High EMI and RFI Rejection

- Extremely high EMI and RFI rejection
- PCB uses only surface mount components
- Solid-state relay
- 11m x 11m (35ft x 35ft); 110° viewing angle
- See Features Common to All Analog Motion Detectors on page 51
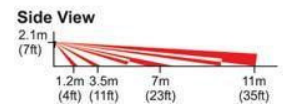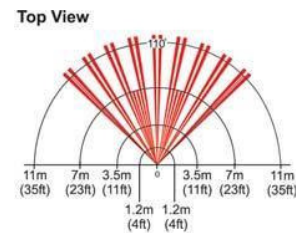
476PET | Analog Single-Optic PIR (18kg/40lb Pet Immunity)

- Immune to animals weighing up to 18kg (40lb)
- When a higher level of immunity is required, such as when animals are constantly in the detection area, consider using DG75
- 11m x 11m (35ft x 35ft) and up to 15m (50ft) for center beams with 88.5° viewing angle
- Extremely high EMI and RFI rejection
- PCB uses only surface mount components
- Solid-state relay
- See Features Common to All Analog Motion Detectors on page 51
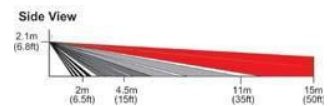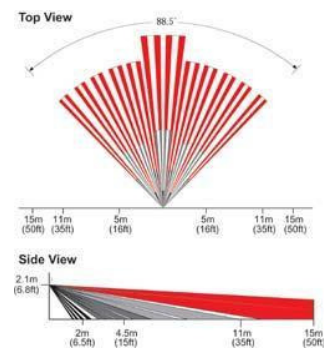
460 | Vertical View Motion Detector
- Adjustable lens position (0° or 10°)
- Selectable operational voltage (12Vdc or 24Vdc)
- Adjustable alarm signal duration
- Detects hand-sized objects for card access applications: 2.1m x 1.5m (7ft x 5ft)
- Detects body-sized objects for security applications: 6m x 4.5m (20ft x 15ft)
- See Features Common to All Analog Motion Detectors on page 51
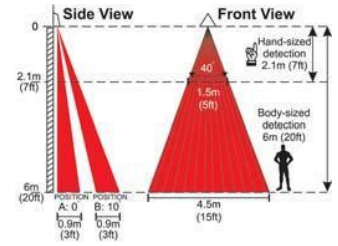
Specialized Detectors and Accessories

DG457 | Digital Glassbreak Bus Detector
- See full description on page 21

457 | Digital Glassbreak Detector
Same features as the DG457 (see above) except:
- Conventional relay operation only

459 | Test Trek
- Toggle test mode remotely
- Use with DG457 and 457 to test the modules

950 | Safe Protector
- High-sensitivity piezoelectric element
- Five sensitivity settings
- 2.5m (8ft) protection range
- Anti-tamper switch

SB469 | Swivel Mount Bracket
- 3 in 1: ceiling, wall or corner mount bracket
- Ensures optimal coverage

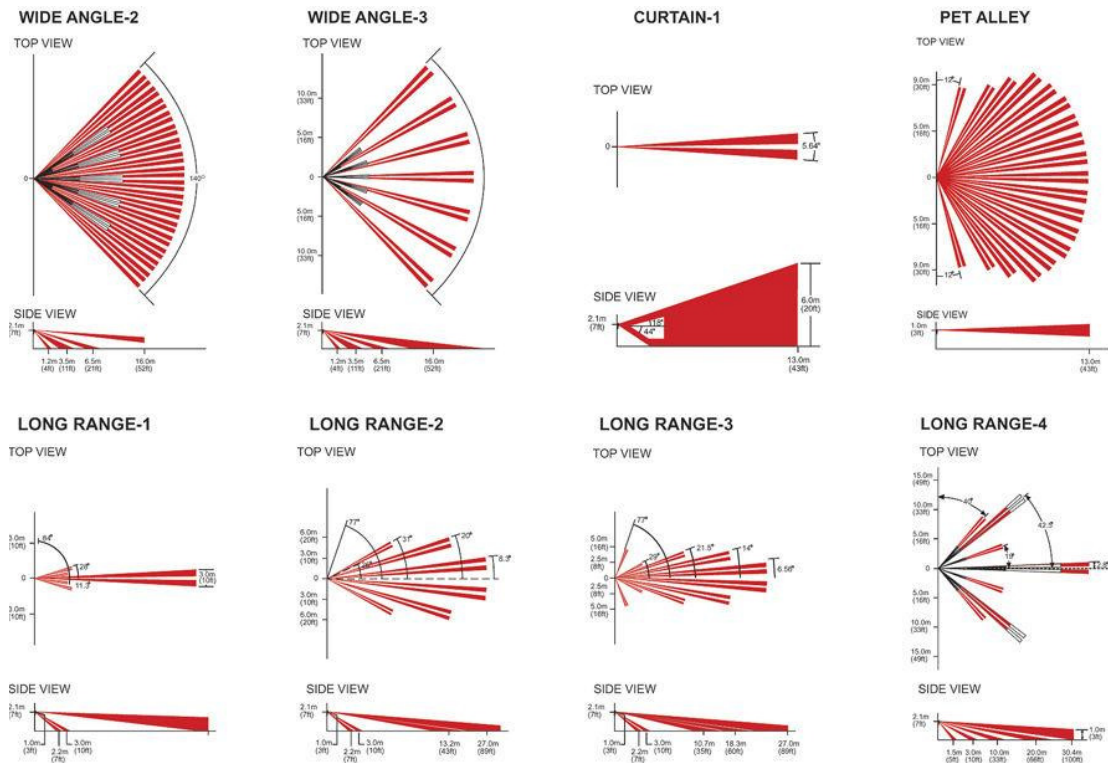**SB85 | Heavy Duty Outdoor Swivel Bracket**
- For use with the PMD85 (page 46) and DG85 series (page 50) outdoor digital PIRs
- Innovative T-joint allows for movement along two axes for better maneuverability and better detector positioning
- 3 in 1: ceiling, wall or corner mount bracket
- Cap lock prevents unauthorized repositioning of outdoor detector

Movement along 2 axes

Lenses

The following beam patterns represent the optional lenses that are available for the Pro+ (476+), Digigard 55 (DG55), Digigard 65 (DG65), Digiplex Motion Detector Modules (DM50 and DM60), Digital Vision (525D) and Magellan (PMD1P) motion detectors. Distances shown may vary according to the selected motion detector; please verify the motion detector's specifications.

WIDE ANGLE-2 | WIDE ANGLE-3 | CURTAIN-1 | PET ALLEY

LONG RANGE-1 | LONG RANGE-2 | LONG RANGE-3 | LONG RANGE-4

PMD85 / DG85 Lenses

| Pet Array | Horizontal Curtain Beam | Vertical Curtain Beam |
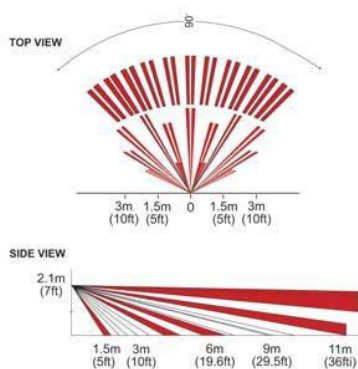
- Patented Animal Immunity (up to 40kg/90lbs)
- 11m x 11m (35ft x 35ft) with 90° viewing angle
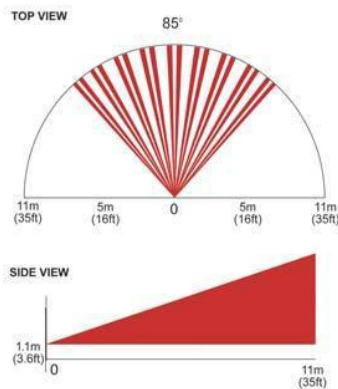
- Allows large-breed dogs and multiple pets to roam free below the 1.1m (3.6ft) detection level
- 11m x 11m (35ft x 35ft) with 90° viewing angle

- Protect corridors or vertical surfaces such as walls or balcony doors
- 13m (43ft) x 2 beams; 5.64° viewing angle

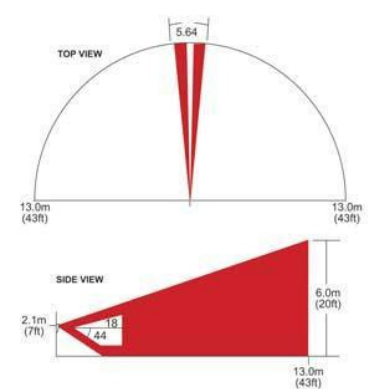| Features	DG483	DG55	DG65	DG75	DG85	525D	DG466	DG467	476+	476PET	460	PMD1P	PMD75	PMD85
							Products							
Digital Detection	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	✓	✓
Auto Pulse Signal Processing	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Auto Temp. Compensation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Shield Algorithm	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	✓	✓
Dual Edge Proc.	✓	✓	✓	✓	✓	✓	-	✓	-	-	-	-	✓	✓
Dual Opposed	-	-	✓	✓	✓	-	-	-	-	-	-	-	✓	✓
Interlock Sensor Geometry	-	-	✓	-	-	-	-	-	-	-	-	-	-	-
Special	-	-	-	-	Outdoor	Micro-wave	Directional	-	-	-	Vertical view	Wireless	Wireless	Wireless Outdoor
Animal Immunity	-	-	-	40kg/90lb	40kg/90lb	-	-	-	-	18kg/40lb	-	18kg/40lb	40kg/90lb	40kg/90lb
Metal Shield	-	✓	✓	✓	✓	-	-	-	✓	✓	✓	-	-	✓
Sensor	Dual element	Dual element	Quad element	2 Dual elements	2 Dual elements	Dual element	2 Dual elements	Dual element	Dual element	Dual element	Dual element	Dual element	2 Dual elements	2 Dual elements
Coverage (Viewing Angle)	m:10 x 10 ft: 33 x 33 85°	m:12 x 12 ft: 40 x 40 110°	m:12 x 12 ft: 40 x 40 110°	m:11 x 11 ft: 35 x 35 90°	See page 53	m:11 x 11 ft: 35 x 35 90°	see page 51	see page 51	m:11 x 11 ft: 35 x 35 110°	see page 51	see page 52	see page 46	m:11 x 11 ft: 35 x 35 90°	See page 53
Optional Lenses	-	✓	✓	-	✓	✓	-	-	✓	-	-	✓	-	✓

Control Panel Comparison Chart

Features	Products										
	Imperial V32	EVO48	EVO192	SP5500	SP6000	SP7000	E55	E65	MG6130 MG6160	MG5000	MG5050
Zones On-board/ max	8 / 384	8 / 48 + 8 virtual	8 / 192 + 8 virtual	5 / 32	8 / 32	16 / 32	4 / 32	9 / 32	2 / 32	2 / 32	5 / 32
Partitions (areas)	32	4	8	2	2	2	2	2	-	2	2
Users	256 (+ 3744 cards)	96	999	32	32	32	32	32	16	32	32
PGMs On-board / max	5 / 350	2 / 250	5 / 250	2 / 16	2+2 / 16	4 / 16	1	3	2	2 / 16	4 / 16
Expansion Modules	511	127	254	15	15	15	15	15	-	15	15
Wireless Expansion	-	✓	✓	✓	✓	✓	-	-	✓	✓	✓
In-Field Upgradeable	✓	✓ †	✓ ‡	✓ **	✓ **	✓ **	✓	✓ *	✓ **	✓ **	✓ **
Built-in Access Control	64 Doors	32 Doors	32 Doors	-	-	-	-	-	-	-	-
Buffered events	32000 Access 2000 Security 10000 Mama	1024	2048	256	256	256	256	256	256	256	256
Software	BabyWare	NEware WinLoad	NEware WinLoad	WinLoad	WinLoad	WinLoad	WinLoad	WinLoad	WinLoad	WinLoad	WinLoad

* 16 PGMs, 4 keypads, 2 repeaters
** 32 zones, 32 remotes, 4 sirens, 16 PGMs, 8 keypads, 2 repeaters
† 48 zones, 96 remotes, 8 PGMs per RTX3
‡ 192 zones, 999 remotes, 8 PGMs per RTX3

Patents
One or more of the following US patents may apply: 7046142, 6215399, 6111256, 6104319, 5920259, 5886632, 5721542, 5287111, 5119069, 5077549 and RE39406 and other pending patents may apply. Canadian and international patents may also apply.

Trademarks
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Specifications
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