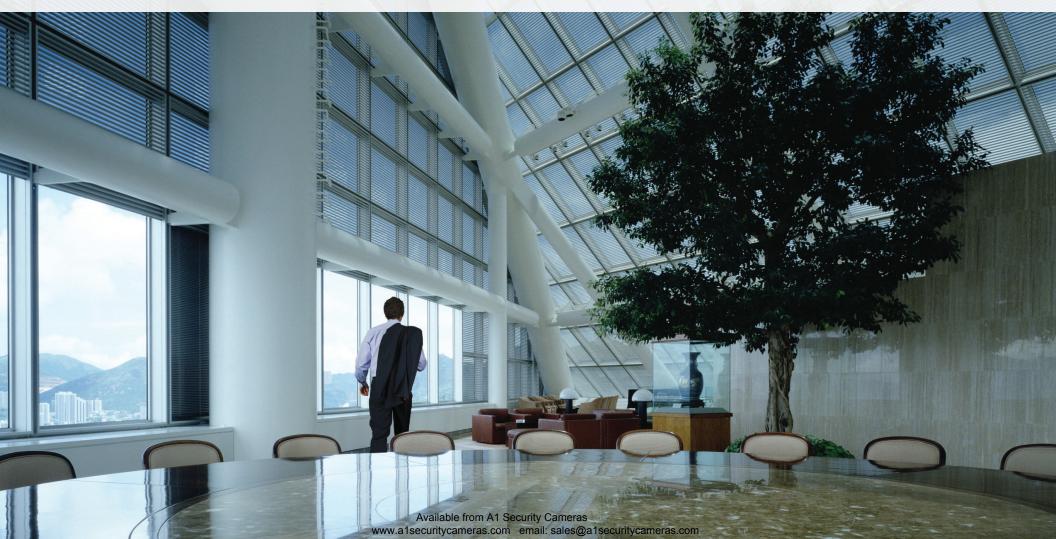
# Intrusion Detectors Quick Guide

May 2016





## **Security** you can rely on

With decades of experience and an unwavering dedication to high-quality and high-performing products, Bosch detectors provide best-in-class false alarm immunity and catch performance while installation time and complexity.

Bosch is recognized throughout the security industry as a global leader in intrusion detection expertise. We have earned this reputation by consistently providing products that meet your needs with a focus on performance, reliability, durability, and ease of installation.

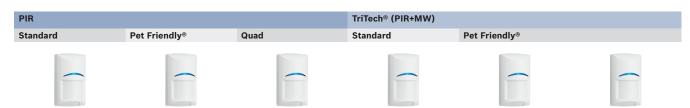
### **Ideal** for any application

Intelligent intrusion detection is a delicate balance between responding to real security breachers and ignoring costly false alarm sources. Bosch offers a choice of detector models that set the standard for reliability and rapid detection.

Our intrusion detectors suit the requirements of virtually any application — from larger warehouses to long corridors and high ceilings. They stand up to multiple challenges, including strong drafts, moving objects, and the presence of pets.

## Residential and Small Commercial

Blue Line Gen 2 Series



<b>Commercial Type Num</b>	ber	ISC-BPR2-W12	ISC-BPR2-WP12	ISC-BPQ2-W12	ISC-BDL2-W12x	ISC-BDL2-WP12x	ISC-BDL2-WP6x
Overview	Application risk level	Low to moderate risk	Low to moderate risk	Moderate risk	Low to Moderate risk	Low to Moderate risk	Low to Moderate risk
	Environment *	Standard	Standard	Difficult	Difficult	Difficult	Difficult
Specifications	Coverage/range	40 x 40 ft (12 x 12 m)	40 x 40 ft (12 x 12 m)	40 x 40 ft (12 x 12 m)	40 x 40 ft (12 x 12 m)	40 x 40 ft (12 x 12 m)	20 x 20 ft (6 x 6 m)
	Mounting height	7.5 to 9 ft (2.3 to 2.75 m)	7.5 to 9 ft (2.3 to 2.75 m)	7.5 to 9 ft (2.3 to 2.75 m)			
	Operating temperature **	-20° to 130°F (-30° to 55°C)	-20° to 130°F (-30° to 55°C)	-20° to 130°F (-30° to 55°C)			
	Operating voltage	9-15 VDC	9-15 VDC	9-15 VDC	9-15 VDC	9-15 VDC	9-15 VDC
	Current draw (typical)	10 mA	10 mA	10 mA	10 mA	10 mA	10 mA
Features	First Step Processing						
	Microwave noise adaptive processing	-	-	_		•	•
	Dynamic temperature compensation		•			•	ı
	Wall-to-wall coverage				•	•	•
	Look-down zone						
	Pet/small animal immunity	10 lb (4.5 kg)	45 lb (20 kg)	10 lb (4.5 kg)	10 lb (4.5 kg)	100 lb (45 kg)	100 lb (45 kg)
	Alarm output	NC	NC	NC	NC	NC	NC
	Alarm memory	-	-	-	-	_	-
	Anti-mask	-	-	-	-	-	-
	Tamper	Cover	Cover	Cover	Cover	Cover	Cover
	Sealed optical chamber						1
Ease of installation ***	No-adjust installation						1
	Enable/disable LED						1
	Enable/disable pet immunity	-		-	-		1
	Enable/disable look-down				-	-	-
	Microwave Doppler range adjustment	-	-	-			1
	Remote walk test	-	-	-	-	-	-
	Remote self test	_	-	_	-	_	-
Certifications		AFNOR, CCC, CE, EN50131-2-2 Grade 2, INCERT, UL	AFNOR, CCC, CE, EN50131-2-2 Grade 2, INCERT, UL	AFNOR, CCC, CE, EN50131-2-2 Grade 2, INCERT, UL	AFNOR, CCC, CE, EN50131-2-4 Grade 2, FCC, IC, INCERT, UL	AFNOR, CCC, CE, EN50131-2-4 Grade 2, FCC, IC, INCERT, UL	AFNOR, CCC, CE, EN50131-2-4 Grade 2 FCC, IC, INCERT, UL

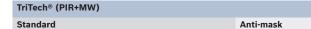
<sup>\*</sup> Difficult environments include rooms with potential false alarm sources, such as: air conditioning vents, strong drafts of cold or warm air, slow moving objects such as curtains, plants, or signs hanging from the ceiling, a fan that could be running when the system is activated, under floor heating, room temperatures exceeding 86°F (30°C), a detector that could be exposed to bright white light (car headlights, floodlights, direct sunlight, etc.)

<sup>\*\*</sup> For UL installations the operating range is 32° to 120°F (0° to 49°C), indoor use.

<sup>\*\*\*</sup> All models feature a two-piece design, self-locking enclosure, interchangeable mounting base, integrated bubble level, and removable lift-gate terminal strips.

#### **Small to Medium Commercial**

Commercial Series









Commercial Type Num	ber	ISC-CDL1-W15x	ISC-CDL1-WA15x	ISC-CDL1-WA12x
Overview Application risk level		Moderate risk	High risk	High risk
	Environment *	Difficult	Difficult	Difficult
Specifications	Coverage/range	overage/range 50 x 50 ft (15 x 15 m)		40 x 40 ft (12 x 12 m)
	Mounting height	7.5 to 9 ft (2.3 to 2.75 m)	7.5 to 9 ft (2.3 to 2.75 m)	7.5 to 9 ft (2.3 to 2.75 m)
	Operating temperature **	-22° to 130°F (-30° to 55°C)	−22° to 130°F (−30° to 55°C)	-22° to 130°F (-30° to 55°C)
	Operating voltage	9-15 VDC	9-15 VDC	9-15 VDC
	Current draw (typical)	10 mA	15 mA	15 mA
eatures	First step processing	•		
	Microwave noise adaptive processing			
	Range adaptive radar	-	-	-
	Active white light suppression	•		
	Dynamic temperature compensation	•		
	Look-down zone	•		
	Pet/small animal immunity	10 lb (4.5 kg)	10 lb (4.5 kg)	10 lb (4.5 kg)
	Alarm output	NC	NC	NC
	Alarm memory			
	Anti-mask	-		
	Tamper	Cover	Cover + wall	Cover + wall
	Sealed optical chamber	•	1	
ase of installation ***	No-adjust installation			
	Enable/disable look-down	•		
	Enable/disable LED	•		
	Microwave Doppler range adjustment		1	
	Remote walk test	-	-	-
	Remote self test	-	-	-
Certifications		AFNOR, CCC, CE, EN50131-2-4 Grade 2, FCC, IC, INCERT, UL	AFNOR, CCC, CE, EN50131–2–4 Grade 3, FCC, IC, INCERT, UL	AFNOR, CCC, CE, EN50131-2-4 Grade 3, FCC, IC, INCERT, UL

<sup>\*</sup> Difficult environments include rooms with potential false alarm sources, such as: air conditioning vents, strong drafts of cold or warm air, slow moving objects such as curtains, plants, or signs hanging from the ceiling, a fan

that could be running when the system is activated, under floor heating, room temperatures exceeding 86°F (30°C), a detector that could be exposed to bright white light (car headlights, floodlights, direct sunlight, etc.)

<sup>\*\*</sup> For UL installations the operating range is 32° to 120°F (0° to 49°C), indoor use.

<sup>\*\*\*</sup> All models feature a two-piece design, self-locking enclosure, interchangeable mounting base, integrated bubble level, and removable lift-gate terminal strips.

# Large Commercial and High Security

**Professional Series** 



Commercial Type Num	ber	ISC-PPR1-W16	ISC-PPR1-WA16x	ISC-PDL1-W18x	ISC-PDL1-WA18x	ISC-PDL1-WC30x	ISC-PDL1-WAC30x
Overview	Application risk level	Moderate risk	High risk	Moderate risk	High risk	Moderate risk	High risk
	Environment *	Standard	Standard	Difficult	Difficult	Difficult	Difficult
Specifications	Coverage/range	50 x 70 ft	50 x 70 ft	60 x 80 ft	60 x 80 ft	100 x 8.5 ft	100 x 8.5 ft
		(16 x 21 m)	(16 x 21 m)	(18 x 25 m)	(18 x 25 m)	(30 x 2.6 m)	(30 x 2.6 m)
		25 x 33 ft	25 x 3.3 ft	25 x 3.3 ft			
		(8 x 10 m)	(8 x 1 m)	(8 x 1 m)			
	Mounting height	7 to 10 ft	7 to 10 ft				
		(2.1 to 3 m)	(2.1 to 3 m)				
	Operating temperature **	-20° to 130°F	-22° to 130°F	-20° to 130°F	-22° to 130°F	-22° to 130°F	-22° to 130°F
		(-29° to 55°C)	(-30° to 55°C)	(-29° to 55°C)	(-30° to 55°C)	(-30° to 55°C)	(-30° to 55°C)
	Operating voltage	9-15 VDC	9-15 VDC				
	Current draw (typical)	10 mA	18 mA	13 mA	18 mA	18 mA	18 mA
Features	Sensor Data Fusion						
	Microwave noise adaptive processing	-	-				
	Range adaptive radar	-	-				1
	Active white light suppression						1
	Dynamic temperature compensation		1		1		
	Look-down zone						1
	Pet/small animal immunity	10 lb (4.5 kg)	10 lb (4.5 kg)				
	Alarm output	NC	NC	NC	NC	NC	NC
	Alarm memory		•	•	•	•	•
	Anti-mask	-		-		-	
	Tamper	Cover + wall	Cover + wall				
	Sealed optical chamber						
Ease of installation ***	No-adjust installation						•
	Enable/disable look-down		•				
	Long/short select range				1	-	-
	Microwave Doppler range adjustment	-	-				
	Remote walk test						
	Remote self test		•				
Certifications		AFNOR, CCC, CE,	AFNOR, CE,	AFNOR, CCC, CE,	AFNOR, CCC, CE,	AFNOR, CE,	AFNOR, CE,
		EN50131-2-2 Grade 2,	EN50131-2-2 Grade 3,	EN50131-2-4 Grade 2,	EN50131-2-4 Grade 3,	EN50131-2-4 Grade 2,	EN50131-2-4-Grade 3
		FCC, IC, INCERT, UL	LIGOTOL 2 4 Grade 5				

<sup>\*</sup> Difficult environments include rooms with potential false alarm sources, such as: air conditioning vents, strong drafts of cold or warm air, slow moving objects such as curtains, plants, or signs hanging from the ceiling, a fan that could be running when the system is activated, under floor heating, room temperatures exceeding 86°F (30°C), a detector that could be exposed to bright white light (car headlights, floodlights, direct sunlight, etc.)

<sup>\*\*</sup> For UL installations the operating range is 32° to 120°F (0° to 49°C), indoor use.

<sup>\*\*\*</sup> All models feature a two-piece design, self-locking enclosure, interchangeable mounting base, integrated bubble level, and removable lift-gate terminal strips.

#### Premises Wireless<sup>†</sup>

**RADION** 

PIR TriTech® (PIR+MW)
Standard Curtain Standard







<b>Commercial Type Num</b>	ber	RFPR-12	RFPR-C12	RFDL-11
Overview	Application risk level	Low to moderate risk	Low to moderate risk	Low to Moderate risk
	Environment *	Standard	Standard	Difficult
Specifications	Frequency	433.42 MHz	433.42 MHz	433.42 MHz
	Coverage/range	40 x 40 ft (12 x 12 m)	40 x 5 ft (12 x 1.5 m)	35 x 35 ft (11 x 11 m)
	Mounting height	7 to 9 ft (2.1 to 2.75 m)	7 to 8.5 ft (2.1 to 2.6 m)	6.5 to 8 ft (2.0 to 2.4 m)
	Operating temperature **	14° to 120°F (-10° to 49°C)	14° to 120°F (-10° to 49°C)	14° to 120°F (-10° to 49°C)
	Operating voltage	3 VDC	3 VDC	6 VDC
	Power source	One CR123A Lithium Battery	One CR123A Lithium Battery	Four AA Alkaline Batteries
	Battery life	Up to 5 years	Up to 5 years	Up to 5 years
Features	Motion Analyzer II signal processing	ı	•	
	Microwave noise adaptive processing	-	-	
	Dynamic temperature compensation	ı		
	Wall-to-wall coverage	ı		
	Look-down zone	ı	•	
	Pet/small animal immunity	30 lb (13 kg)	30 lb (13 kg)	100 lb (45 kg)
	Anti-mask	-	-	-
	Tamper	Cover + wall	Cover + wall	Cover + wall
	Sealed optical chamber	ı		
Ease of installation ***	No-adjust installation	ı		-
	Enable/disable LED	-	-	-
	Enable/disable pet immunity	-	-	1
	Enable/disable look-down	1	1	1
	Switchable detection patterns	-	-	-
	Microwave Doppler range adjustment	-	-	1
Certifications		ANATEL, AFNOR, CCC, CE, EN50131-2-2 Grade 2, FCC, IC, INCERT, RCM, UL	ANATEL, AFNOR, CCC, CE, EN50131-2-2 Grade 2, FCC, IC, INCERT, RCM, UL	ANATEL, AFNOR, CCC, CE, EN50131-2-4 Grade FCC, IC, INCERT, RCM, UL

<sup>\*</sup> Difficult environments include rooms with potential false alarm sources, such as: air conditioning vents, strong drafts of cold or warm air, slow moving objects such as curtains, plants, or signs hanging from the ceiling, a fan that could be running when the system is activated, under floor heating, room temperatures exceeding 86°F (30°C), a detector that could be exposed to bright white light (car headlights, floodlights, direct sunlight, etc.)

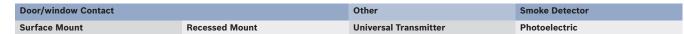
<sup>\*\*</sup> For UL installations the operating range is 32° to 120°F (0° to 49°C), indoor use.

<sup>\*\*\*</sup> All models feature a two-piece design, and integrated bubble level.

<sup>†</sup> Wireless peripherals require a compatible receiver. B810 RADION receiver is compatible with SDI2 bus panels (B Series and G Series); RFRC-OPT is compatible with Option bus panels; RFRC-STR is compatible with Streamline bus panels.

#### Premises Wireless<sup>†</sup>

RADION











Commercial Type I	lumber	RFDW-SM	RFDW-RM	RFUN	RFSM
Specifications	Frequency	433.42 MHz	433.42 MHz	433.42 MHz	433.42 MHz
	Coverage/range	-	-	_	135° +/- 5°F (57.2° +/- 2.8°C)
	Reed switch gap width	< 0.75 in (19 mm)	< 0.75 in (19 mm)	< 0.75 in (19 mm)	-
	Operating temperature *	14° to 120°F (-10° to 49°C)	14° to 120°F (-10° to 49°C)	14° to 120°F (-10° to 49°C)	14° to 120°F (-10° to 49°C)
	Operating voltage	1.5 VDC	1.5 VDC	1.5 VDC	3 VDC
	Power source	One AAA Lithium Battery	One AAA Lithium Battery	One CR123A Lithium Battery	Two CR123A Lithium Battery
	Battery life	Up to 5 years	Up to 5 years	Up to 5 years	Up to 5 years
Features	Tamper			ı	
	LED indicator	-	-	_	
Certifications		ANATEL, CCC, CE, EN50131, FCC, IC, INCERT, RCM, UL	ANATEL, CCC, CE, EN50131, FCC, IC, INCERT, RCM, UL	ANATEL, CCC, CE, EN50131, FCC, IC, INCERT, RCM, UL	ANATEL, CE, CSFM, FCC, IC, RCM, UL

Other		Portable	
Glass Break	Bill Trap	Keyfob	Panic Button

Commercial Type !	Number	RFGB	RFBT	RFKF-FB, RFKF-TB, RFKF-FBS, RFKF-TBS	RFPB-SB, RFPB-TB	
Specifications Frequency		433.42 MHz	433.42 MHz	433.42 MHz	433.42 MHz	
	Coverage/range	20 ft (6 m) diameter	-	-	_	
	Mounting gap	-	-	-	_	
	Operating temperature *	14° to 120°F (-10° to 49°C)	14° to 120°F (-10° to 49°C)	14° to 120°F (-10° to 49°C)	14° to 120°F (-10° to 49°C)	
Operating vo	Operating voltage	3 VDC	1.5 VDC	3 VDC	3 VDC	
	Power source	One CR123A Lithium Battery	One AAA Lithium Battery	One Lithium CR2032 Battery	One Lithium CR2032 Battery	
	Battery life	Up to 5 years	Up to 5 years	Up to 5 years	Up to 5 years	
Features	Tamper			-	_	
	LED indicator				•	
	Synchronized Encryption	-	-	■ (FBS, TBS models)	_	
Certifications		ANATEL, CCC, CE, EN50131, FCC, IC, INCERT, RCM, UL	ANATEL, CCC, CE, EN50131, FCC, IC, INCERT, RCM, UL	ANATEL, CCC, CE, EN50131, FCC, IC, INCERT, RCM, UL	ANATEL, CE, CSFM, FCC, IC, RCM, UL	

<sup>\*</sup> For UL installations the operating range is 32° to 120°F (0° to 49°C), indoor use.

<sup>†</sup> Wireless peripherals require a compatible receiver. B810 RADION receiver is compatible with SDI2 bus panels (B Series and G Series); RFRC-OPT is compatible with Option bus panels; RFRC-STR is compatible with Streamline bus panels.

#### **Premises Wireless (ZigBee)**

RADION ZB



<b>Commercial Type Num</b>	ber	RFPR-ZB	RFDL-ZB
Overview	Application risk level	Low to moderate risk	Low to Moderate risk
	Environment *	Standard	Difficult
Specifications	Frequency	2.4 GHz	2.4 GHz
Features	Coverage/range	40 x 40 ft (12 x 12 m)	40 x 40 ft (12 x 12 m)
	Mounting height	7.5 to 9 ft (2.3 to 2.7 m)	7.5 to 9 ft (2.3 to 2.7 m)
	Operating temperature **	14° to 131°F (-10° to 55°C)	14° to 131°F (-10° to 55°C)
	Operating voltage	3 VDC	3 VDC
	Power source ***	One CR123A Lithium Battery	One CR123A Lithium Battery
	Battery life *** Up to 6 years		Up to 3 years
	First Step Processing	ı	1
	Microwave noise adaptive processing	-	ı
	Dynamic temperature compensation	ı	1
	Wall-to-wall coverage	ı	1
	Look-down zone	ı	ı
	Pet/small animal immunity	45 lb (20 kg)	100 lb (45 kg)
	Anti-mask	-	-
	Tamper	Cover + wall	Cover + wall
	Sealed optical chamber	ı	ı
Ease of installation****	No-adjust installation	ı	1
	Enable/disable LED	ı	1
	Enable/disable pet immunity	ı	1
	Enable/disable look-down	ı	1
	Microwave Doppler range adjustment	-	
Certifications		FCC, IC, cETLus, ZigBee, iControl	FCC, IC, cETLus, ZigBee, iControl

<sup>\*</sup> Difficult environments include rooms with potential false alarm sources, such as: air conditioning vents, strong drafts of cold or warm air, slow moving objects such as curtains, plants, or signs hanging from the ceiling, a fan that could be running when the system is activated, under floor heating, room temperatures exceeding 86°F (30°C), a detector that could be exposed to bright white light (car headlights, floodlights, direct sunlight, etc.)

\*\* For UL installations the operating range is 32° to 120°F (0° to 49°C), indoor use.

<sup>\*\*\*</sup> Power source has capacity for an additional battery increasing the battery life from 6 to 10 years (RFPR-ZB) or from 3 to 6 years (RFDL-ZB).

<sup>\*\*\*\*</sup> All models feature a two-piece design, self-locking enclosure, interchangeable mounting base, and integrated bubble level.

#### **Ceiling Mount**

Classic Line

PIR TriTech® (PIR+MW) PIR TriTech® (PIR+MW)

Panoramic High Performance Panoramic











<b>Commercial Type Nu</b>	mber	DS936	DS938Z	DS9360	DS939	DS9370
Overview	Application risk level	Low to moderate risk	Low to moderate risk	Moderate risk	Moderate risk	Moderate risk
	Environment *	Standard	Standard	Difficult	Standard	Difficult
Specifications	Optics	Fresnel	Mirror	Mirror	Triple 35-zone Fresnel	Triple 35-zone Fresnel
	Coverage/range	24 ft (7 m) diameter	60 ft (18 m) diameter	60 ft (18 m) diameter	70 ft (21 m) diameter	70 ft (21 m) diameter
	Mounting height	7-12 ft (2.1-3.6 m)	8-18 ft (2.4-5.5 m)	8-18 ft (2.4-5.5 m)	8-25 ft (2.4-7.6 m)	8-25 ft (2.4-7.6 m)
	Operating temperature **	-20° to 120°F (-29° to 49°C)	-20° to 120°F (-29° to 49°C)	-40° to 120°F (-40° to 49°C)	-40° to 120°F (-40° to 49°C)	-40° to 120°F (-40° to 49°C)
	Operating voltage	10-15 VDC	6-15 VDC	6-15 VDC	9-15 VDC	9-15 VDC
	Current draw (typical)	20 mA	18 mA	18 mA	12 mA	19 mA
Features	First Step Processing	-	-	_	•	
	Motion Analyzer II signal processing	_		•	_	_
	PIR supervision	-	•	•	-	_
	Microwave supervision	_	-	•	-	•
	Microwave noise adaptive processing	_	-	•	-	•
	Dynamic temperature compensation	-	+	_		
	Pet/small animal immunity	_	+	_	_	_
	Pattern masking	•	•	•	•	
	Alarm output	NC	NC/NO	NC/NO	NC/NO	NC/NO
	Alarm memory	-	-	_		
	Anti-mask	_	-	_	-	_
	Tamper	Cover	Cover	Cover	Cover + wall	Cover + wall
	Sealed optical chamber (insect/dust)	•	-	-	•	•
Ease of installation	Two-piece design	_	-	_	•	•
	Self-locking enclosure	-	-	_		
	Hinged mounting base	-	-	_	•	•
	Interchangeable optics	-		•	_	_
	Switchable coverage patterns	-		•	•	
	Enable/disable LED	•		•		
	PIR sensitivity adjustment	•		•	•	
	Microwave Doppler range adjustment	_	-	•	_	•
	Flexible mounting height	•	•	•	•	•
	Remote walk test	-	-	_	•	
	Remote self test	-	-	_	-	-
Certifications		CCC, CE, UL	AFNOR, CCC, CE, EN50131- 2-2 Grade 2, UL	AFNOR, CE, EN50131-2-4 Grade 2, FCC, IC, UL	AFNOR, CCC, CE, EN50131–2–2 Grade 2, INCERT, UL	AFNOR, CCC, CE, EN50131-2-4 Grade 2, FCC IC, INCERT, UL

<sup>\*</sup> Difficult environments include rooms with potential false alarm sources, such as: air conditioning vents, strong drafts of cold or warm air, slow moving objects such as curtains, plants, or signs hanging from the ceiling, a fan that could be running when the system is activated, under floor heating, room temperatures exceeding 86°F (30°C), a detector that could be exposed to bright white light (car headlights, floodlights, direct sunlight, etc.)

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#### **Specialty**

Request-to-Exit

Standard High Performance

Light Gray Black Light Gray Black









<b>Commercial Type Nu</b>	mber	DS150i	DS151i	DS160	DS161
Specifications	Coverage/range	8 x 10 ft (2.4 x 3 m)	8 x 10 ft (2.4 x 3 m)	8 x 10 ft (2.4 x 3 m)	8 x 10 ft (2.4 x 3 m)
	Mounting height (max.)	7-10 ft (2.1-3 m)	7-10 ft (2.1-3 m)	7.5-15 ft (2.3-4.6 m)	7.5-15 ft (2.3-4.6 m)
	Operating temperature **	-20° to 120°F (-29° to 49°C)			
	Operating voltage	12 VAC or VDC; 24 VAC or VDC	12 VAC or VDC; 24 VAC or VDC	12 VAC or VDC; 30 VAC or VDC	12 VAC or VDC; 30 VAC or VDC
	Current draw (typical)	26 mA nominal	26 mA nominal	8 mA nominal	8 mA nominal
Features	Door monitor with sounder	-	-		•
	Keycard reader input	-	-		•
	Sequential logic input	-	-		•
	Relay fall safe/fall secure				
	Relay settable select				
	Relay latch time adjustment	0.25-60 seconds	0.25-60 seconds	0.5-64 seconds	0.5-64 seconds
	Pattern masking				•
	Alarm output/memory	-/∎	-/■	-/■	-/∎
	Tamper	-	-		
Ease of installation	Pointable optics	Vertical adjustment	Vertical adjustment	Vertical adjustment	Vertical adjustment
	Switchable relay mode				•
	Switchable timer reset mode				
	Adjustable sounder volume	-	-		•
	PIR sensitivity adjustment		•		•
	Enable/disable LED	_	-		•
	Flexible mounting height	•	•	•	•
Certifications		UL, CE	UL, CE	UL, CE	UL, CE

<sup>\*</sup> Difficult environments include rooms with potential false alarm sources, such as: air conditioning vents, strong drafts of cold or warm air, slow moving objects such as curtains, plants, or signs hanging from the ceiling, a fan that could be running when the system is activated, under floor heating, room temperatures exceeding 86°F (30°C), a detector that could be exposed to bright white light (car headlights, floodlights, direct sunlight, etc.)

\*\* For UL installations the operating range is 32° to 120°F (0° to 49°C), indoor use.

#### **Specialty**

Photoelectric Beam



Description		ISC-FPB1-W30DS	ISC-FPB1-W60DS	ISC-FPB1-W90DS	ISC-FPB1-W60QS ISC-FPB1-W60QF	ISC-FPB1-W120QS ISC-FPB1-W120QF	ISC-FPB1-W200QS ISC-FPB1-W200QF
Overview	Туре	Photobeam 3000	Photobeam 3000	Photobeam 3000	Photobeam 5000	Photobeam 5000	Photobeam 5000
	Application type	Residential to Large Commercial	Residential to Large Commercial	Residential to Large Commercial	Residential to Large Commercial	Residential to Large Commercial	Residential to Large Commercial
Specifications	Coverage/range indoor	200 ft (60 m)	400 ft (120 m)	600 ft (180 m)	393 ft (120 m)	787 ft (240 m)	1,312 ft (400 m)
	Coverage/range outdoor	100 ft (30 m)	200 ft (60 m)	300 ft (90 m)	196 ft (60 m)	393 ft (120 m)	656 ft (200 m)
	Response time	50 ms to 700 ms	50 ms to 700 ms	50 ms to 700 ms	40 ms to 500 ms	40 ms to 500 ms	40 ms to 500 ms
	Operating temperature *	-13° to 131°F (-25° to 55°C)	-13° to 131°F (-25° to 55°C)	-13° to 131°F (-25° to 55°C)	-13° to 140°F (-25° to 60°C)	-13° to 140°F (-25° to 60°C)	-13° to 140°F (-25° to 60°C)
	Operating voltage	10.5 VDC to 28 VDC	10.5 VDC to 28 VDC	10.5 VDC to 28 VDC	10.5 VDC to 28 VDC	10.5 VDC to 28 VDC	10.5 VDC to 28 VDC
	Current draw (typical)	6 mA (transmitter) 24 mA (receiver)	10 mA (transmitter) 24 mA (receiver)	15 mA (transmitter) 24 mA (receiver)	90/120 mA (transmitter) 24 mA (receiver)	95/124 mA (transmitter) 24 mA (receiver)	100/128 mA (transmitter) 24 mA (receiver)
	Environmental rating	IP55	IP55	IP55	IP66	IP66	IP66
Features	Pulsed Active IR						
	Multi-channel operation	_	-	_	■ (QF models)	■ (QF models)	■ (QF models)
	Beam Power Control (BPC)	_	-	_	•		
	Dual modulated beam	_	-	_	•		•
	Environmental discrimination	_	-	_	•		•
	Alarm output	NC/NO	NC/NO	NC/NO	NC/NO	NC/NO	NC/NO
	Tamper output	NC	NC	NC	NC	NC	NC
	EDC output	_	-	_	NC	NC	NC
	LED indicator	_	-	_	•		
	Draft/insect immunity				•		•
Ease of installation	Pointable optics	Horizontal ±90° Vertical ±5°	Horizontal ±90° Vertical ±5°	Horizontal ±90° Vertical ±5°	Horizontal ±90° Vertical ±10°	Horizontal ±90° Vertical ±10°	Horizontal ±90° Vertical ±10°
	Selectable response time				•		1
	Test features	Voltage output (for alignment)	Voltage output (for alignment)	Voltage output (for alignment)	Voltage output and LEDs (for alignment)	Voltage output and LEDs (for alignment)	Voltage output and LEDs (for alignment)
	Mounting location	Surface, pole	Surface, pole	Surface, pole	Surface, pole	Surface, pole	Surface, pole

<sup>\*</sup> QS — single channel QF — four channel

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#### A Tradition of Quality and Innovation

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