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Quick Selection Guide

RightSight™ Compact Rectangular



<b>Sensing Modes (Max Distance)</b>	Polarized Retroreflective	3m (10ft)
	Standard Diffuse	500mm (20in)
	Background Suppression	50mm (2.0in) 100mm (3.9in)
	Transmitted Beam	30m (98ft)
	Infrared Glass Fiber Optic	Depends on Fiber Optic selected.
<b>Operating Voltage</b>	12–24V DC	24–240V AC/DC (50/60Hz)
<b>Output</b>	NPN PNP	Power MOSFET
<b>Connections</b>	Cable Micro quick-disconnect	
<b>Features</b>	Complementary outputs for DC versions, 1200 psi (8270kPa) washdown, standard 18mm mounting options, fully short-circuit protected across entire voltage range for AC version	
<b>Selection Criteria</b>	Page Number	1–25

Series 9000—On/Off and Timing



<b>Sensing Modes</b>	ClearSight™ Clear Object Detection	1.2m (4ft)		
	Retroreflective	9.15m (30ft)		
	Polarized Retroreflective	5m (16ft)		
	Standard Diffuse	1.5m (5ft)		
	Long Range Diffuse	3m (10ft)		
	Transmitted Beam	61m (200ft) 152m (500ft)		
	Visible Red Plastic Fiber Optic	Depends on Fiber Optic selection.		
	Infrared Glass Fiber Optic	Depends on Fiber Optic selection.		
<b>Operating Voltage</b>	10–40V DC	10–55V DC, 20–40V AC (50/60Hz)	70–264V AC/DC (50/60Hz)	45–264V DC, 40–264V AC (50/60Hz)
	<b>Output</b>	NPN & PNP	SPDT EM Relay	Solid State Isolated N.O.
	<b>Connections</b>	Cable Micro quick-disconnect Mini quick-disconnect		
	<b>Features</b>	L.O./D.O. switch, sensitivity adjustment, alignment and diagnostic indicators, timing functions, 1200 psi (8270kPa) washdown		
<b>Selection Criteria</b>	Page Number	1–33		

Series 9000—Diagnostic



<b>Sensing Modes (Max Distance)</b>	Retroreflective	9.14m (30ft)
	Polarized Retroreflective	5m (16ft)
	Standard Diffuse	1.5m (5ft)
	Transmitted Beam	61m (200ft) 152m (500ft)
<b>Operating Voltage</b>	10–30V DC	90–264V AC (50/60Hz) 95–264VDC
<b>Output</b>	Selectable NPN/PNP, N.O./N.C., Dynamic/Static	N.O. Relay or N.C. Relay Diagnostic SPST N.O./N.C. Relay
<b>Connections</b>	Cable Micro quick-disconnect Mini quick-disconnect	
<b>Features</b>	Diagnostic output (dynamic and static) L.O./D.O. switch, sensitivity adjustment, alignment and diagnostic indicators, timing functions, 1200 psi (8270kPa) washdown	
<b>Selection Criteria</b>	Page Number	1–47

Series 9000—DeviceNet™ Network Compatible



<b>Sensing Modes (Max Distance)</b>	ClearSight™ Clear Object Detection	1.2m (4ft)
	Retroreflective	9.14m (30ft)
	Polarized Retroreflective	5m (16ft)
	Standard Diffuse	1.5m (5ft)
	Transmitted Beam	61m (200ft) 152m (500ft)
<b>Operating Voltage</b>	10–30V DC	
<b>Output</b>	DeviceNet Standard CAN High/CAN Low	
<b>Connections</b>	Cable Micro quick-disconnect Mini quick-disconnect	
<b>Features</b>	DeviceNet Network compatibility, L.O./D.O. switch, sensitivity adjustment, alignment and diagnostic indicators, timing functions, 1200 psi (8270kPa) washdown	
<b>Selection Criteria</b>	Page Number	1–55

Series 9000—Darkroom



<b>Sensing Modes (Max Distance)</b>	Retroreflective	9.14m (30ft)
	Standard Diffuse	0.91m (3ft)
	Transmitted Beam	30m (100ft)
	Infrared Glass Fiber Optic	Depends on Fiber Optic selected.
<b>Operating Voltage</b>	10–40V DC	70–264V AC/DC 50/60Hz
<b>Output</b>	NPN and PNP	SPDT EM Relay
<b>Connections</b>	Cable Micro quick-disconnect Mini quick-disconnect	
<b>Features</b>	Emits less than 0.002mlux visible light at 25.4mm (1in) from sensor, L.O./D.O. switch, sensitivity adjustment, alignment and diagnostic indicators, 1200 psi (8270kPa) washdown	
<b>Selection Criteria</b>	Page Number	1–62

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### Series 10,000—High Performance



<b>Sensing Modes (Max Distance)</b>	ClearSight™ Clear Object Detection	1.2m (4ft)
	Retroreflective	9.14m (30ft)
	Polarized Retroreflective	4.57m (15ft)
	Standard Diffuse	2.74m (8ft)
	Visible Red Plastic Fiber Optic	Depends on Fiber Optic selected.
	Infrared Glass Fiber Optic	Depends on Fiber Optic selected.
	Green Glass Fiber Optic	Depends on Fiber Optic selected.
<b>Operating Voltage</b>	10–30V DC	
<b>Output</b>	NPN, PNP, and Diagnostic NPN or PNP	
<b>Connections</b>	Cable Micro quick-disconnect Mini quick-disconnect	
<b>Features</b>	LCD display, pushbutton interface, adjustable sensitivity, selectable and hysteresis, ControWatch™ Automatic Gain Control System, MarginView™ Dynamic Margin Display, L.O./D.O. selection, autojitter crosstalk avoidance, output and stability indicators, 1200 psi (8270kPa) washdown	
<b>Selection Criteria</b>	Page Number	1–68

### 42BC—Long Range Background Suppression



<b>Sensing Modes (Max Distance)</b>	Background Suppression	1m (39.3in) 2m (78.7in)
<b>Operating Voltage</b>	10–24V DC ±10%	24–240V AC/DC (50/60Hz) ±10%
<b>Output</b>	NPN/PNP Selectable SPST N.O. Relay	
<b>Connections</b>	Terminals	
<b>Features</b>	Stability and output indicators, L.O./D.O. switch	
<b>Selection Criteria</b>	Page Number	1–78

### Series 5000—Red Line



<b>Sensing Modes (Max Distance)</b>	Retroreflective	6.09m (20ft)
	Polarized Retroreflective	6.09m (20ft)
	Standard Diffuse	1.5m (5ft)
<b>Operating Voltage</b>	120V AC (50/60Hz) 240V AC (50/60Hz)	
<b>Output</b>	SPDT EM Relay AC/DC Solid State FET (SP–N.O.) AC Solid State TRIAC (SP–N.O.)	
<b>Connections</b>	Cable Terminal	
<b>Features</b>	Modular design, output indicator, L.O./D.O. switch	
<b>Selection Criteria</b>	Page Number	1–85

Series 5000—Blue Line



<b>Sensing Modes (Max Distance)</b>	Retroreflective	10m (33ft)
	Polarized Retroreflective	6.09m (20ft)
	Standard Diffuse	2.1m (7ft)
	Infrared Fiber Optic	Depends on Glass Fiber Optics selected, see page 1-232.
	Visible Red Fiber Optic	Depends on Glass or Plastic Fiber Optics selected, see page 1-232 and 1-232.
	Fixed Focus Diffuse	50mm (2in) Focal Point—Infrared or Visible Red
	Wide Angle Diffuse	500mm (20in)—Infrared 160mm (6.3in)—Visible Red
<b>Operating Voltage</b>	10–30V DC	
<b>Output</b>	NPN and PNP	
<b>Connections</b>	Cable Terminal	
<b>Features</b>	Modular design, L.O./D.O. switch, output indicator	
<b>Selection Criteria</b>	Page Number	1-89

Series 5000—Green Line



<b>Sensing Modes (Max Distance)</b>	Retroreflective	10m (33ft)
	Polarized Retroreflective	6.09m (20ft)
	Standard Diffuse	3.06m (10ft)
	Transmitted Beam	170.6m (560ft)
	Infrared Plastic Fiber Optic	Depends on Fiber Optic selected.
	Visible Red Glass Fiber Optic	Depends on Fiber Optic selected.
	Fixed Focus Diffuse	50mm (2in) Focal Point—Infrared or Visible Red
	Wide Angle Diffuse	500mm (20in)—Infrared 160mm (6.3in)—Visible Red
<b>Operating Voltage</b>	20–30V DC 20–30V AC 40–54V AC/DC	102–132V AC 204–254V AC (All AC 50/60Hz)
<b>Output</b>	SPDT EM Relay SP-N.O. FET SS Relay SP-N.O. AC Power TRIAC SS Relay NPN and PNP	
<b>Connections</b>	Terminal Mini quick-disconnect	
<b>Features</b>	Modular design, L.O./D.O. switch, output indicator, plug-in output and timing modules	
<b>Selection Criteria</b>	Page Number	1-96

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### Series 5000—Analog Output



<b>Sensing Modes (Max Distance)</b>	Retroreflective	4.57m (15ft)
	Standard Diffuse	1.5m (5ft)
	Infrared Fiber Optic	Depends on Fiber Optic.
	Visible Red Fiber Optic	Depends on Fiber Optic.
	Fixed Focus Diffuse	50mm (2in) Focal Point— Infrared Visible Red
	Wide Angle Diffuse	500mm (20in)—Infrared 160mm (6.3in)—Visible Red
<b>Operating Voltage</b>	22–28V DC	
<b>Output</b>	Voltage (1–10V DC) or current (1–20mA) and 2 adjustable NPN setpoint outputs	
<b>Connections</b>	Cable Terminal	
<b>Features</b>	Modular design, 2 set point outputs with indicators	
<b>Selection Criteria</b>	Page Number	1–110

### Series 5000—Background Suppression



<b>Sensing Modes (Max Distance)</b>	Background Suppression	300mm (12in)
<b>Operating Voltage</b>	10–30V DC	20–30V DC 20–30V AC (50–60Hz) 40–54V AC (50–60Hz) 102–132V AC (50–60Hz) 204–264V AC (50–60Hz)
<b>Output</b>	NPN and PNP	SPDT EM Relay SP–N.O. FET SS Relay SP–N.O. AC Power TRIAC SS Relay
<b>Connections</b>	Cable (DC) Terminal (AC/DC) Mini quick-disconnect	
<b>Features</b>	Modular design, L.O./D.O. switch, output indicator, one photohead with timing	
<b>Selection Criteria</b>	Page Number	1–117

### Series 5000—Intrinsically Safe



<b>Sensing Modes (Max Distance)</b>	Retroreflective	10m (33ft)
	Polarized Retroreflective	6.09m (20ft)
	Standard Diffuse	2.1m (7ft)
	Infrared Fiber Optic	
	Fixed Focus Diffuse	50mm (2in) Focal Point— Infrared
	Wide Angle Diffuse	500mm (20in)—Infrared
<b>Operating Voltage</b>	13–29.5V DC	
<b>Output</b>	NPN and PNP	
<b>Connections</b>	Terminal	
<b>Features</b>	Modular design, L.O./D.O. switch, Intrinsically Safe design	
<b>Selection Criteria</b>	Page Number	1–121