



ClearSight
10,000 and 9000



ClearSight RightSight



ClearSight 7000



General Specifications

	10,000	9000	RightSight	7000
Applications	Glass and PET bottles, stretch-wrapped objects		Stretch-wrapped objects	
Unit Protection	False pulse, reverse polarity, overload, short circuit			False pulse, reverse polarity, overload
Supply Voltage	10–30V DC	10–40V DC 70–264V AC/DC	10.8–30V DC	11–28V DC
Current Consumption	70mA max	30mA max	35mA max	46mA max
Output Type	NPN and PNP	NPN and PNP, SPDT Relay, SS Isolated	NPN and PNP	NPN or PNP
Output Mode	Light/dark operate by switch		Light/dark by catalog number	Light/dark by lead number
Output Rating	Refer to Product Selection on page R1–93 through R1–94			
Response Time	250µs–4ms selectable	2–15ms	0.5ms	1ms
Housing Material	Valox®		Mindel	Valox®
Lens Material	Acrylic			
Cover Material	Radel		Udel	NA
Connection Type	5-pin micro QD, 5-pin mini QD, 2m cable	4-pin micro QD, 4-pin mini QD, 5-pin mini QD, 2m cable	4-pin micro QD, 2m cable	4-pin micro QD, 2m cable
Supplied Accessories	92–90 reflector			
Optional Accessories	Cordsets, mounting brackets—see page R1–94			
Operating Environment	NEMA 3, 4X, 6P, 12, 13, IP67 (IEC529); 1200psi (8270kPa) Washdown			
Vibration	10–55Hz, 1mm amplitude, Meets or exceeds IEC 947–5–2			
Shock	30g with 1ms pulse duration, Meets or exceeds IEC 947–5–2			
Operating Temperature	–25°C to +60°C (–13°F to +140°F)	–34°C to +70°C (–29°F to +158°F)	–25°C to +55°C (–13°F to +131°F)	–40°C to +65°C (–13°F to +150°F)
Relative Humidity	5...95%			
Diagnostic Output	NPN and PNP	None		
Diagnostic Rating	20mA @ 300V DC	NA		
Approvals	UL listed, CSA certified, and CE marked for all applicable directives			

Features

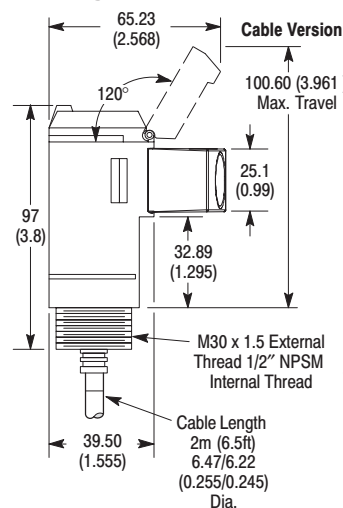
Four product families for application flexibility

- Programmable ClearSight 10,000 for harsh duty glass and PET bottle detection with diagnostic output
- Configurable ClearSight 9000 for harsh duty glass and PET bottle detection
- ClearSight RightSight and 7000 for general purpose plastic film and stretch-wrap detection

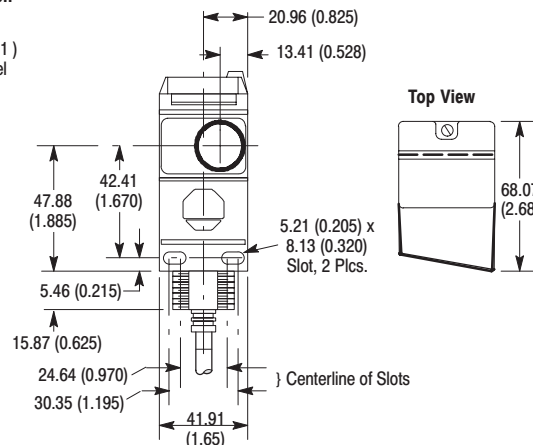
Wiring Diagrams

For Wiring Diagrams, please refer to Series 10,000 (page R1–88), 9000 (page R1–58), 7000 (page R1–112) and RightSight (page R1–28) catalog pages, respectively.

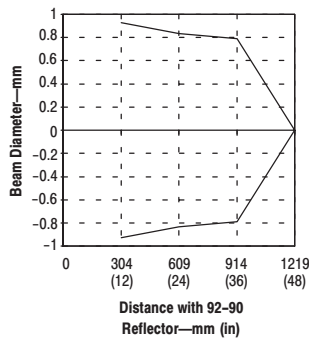
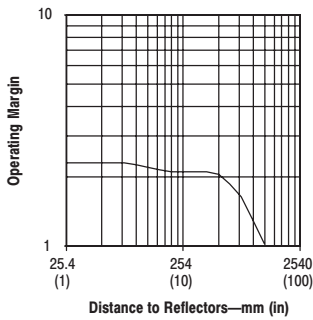
Dimensions—mm (inches)
ClearSight 10,000 and 9000



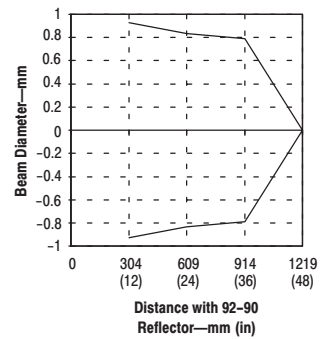
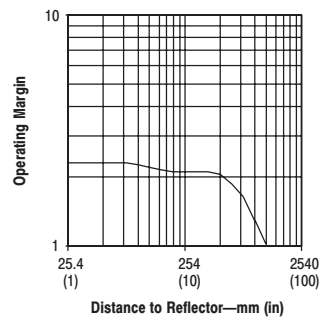
Dimensions for ClearSight RightSight and ClearSight 7000 are located on page R1–28 and R1–113, respectively.



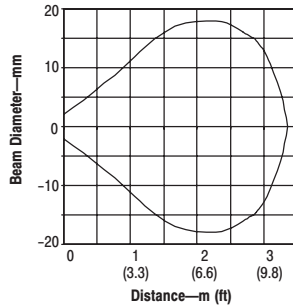
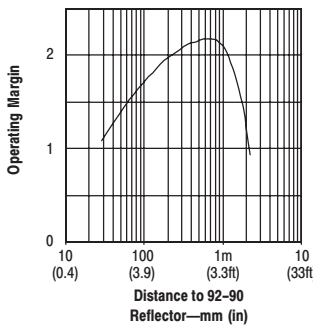
Typical Response Curve Beam Pattern
10,000



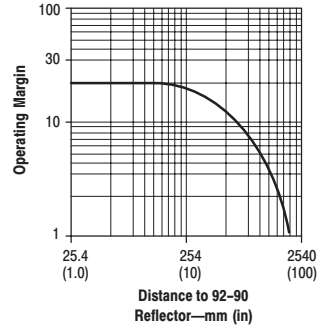
Typical Response Curve Beam Pattern
9000



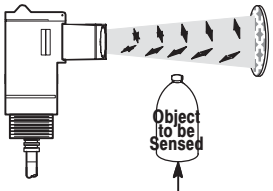
RightSight



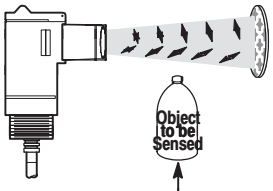
7000



Product Selection

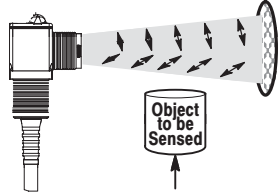
Sensing Mode	Operating Voltage Supply Current	Sensing Distance	Output Energized	Output Type Capacity Response Time	Connection Type	Catalog Number
 10,000 Field of View: 1.5° Emitter LED: Visible red 660nm	10-30V DC 70mA	0m (0in) to 1.2m (48in)	Light/Dark Selectable	NPN & PNP 250mA at 30V DC 250µs to 4ms Selectable	2m 300V cable	42GTGC-10210-02
					5-pin DC micro	42GTGC-10210-QD
					5-pin mini	42GTGC-10210-Q1

On/Off Sensors and Timing

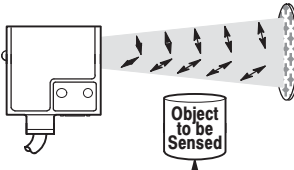
 9000 Field of View: 1.5° Emitter LED: Visible red 660nm	10-40V DC 30mA	2.54cm (2in) to 1.2m (4ft)	Light/Dark Selectable	NPN/PNP 250mA 2ms	2m 300V cable	42G⊗C-9200
	70-264V AC/DC 50/60Hz 15mA			4-pin DC micro	42G⊗C-9200-QD	
				4-pin mini	42G⊗C-9200-QD1	
	45-264V DC/40-264V AC 50/60Hz 15mA	SPDT EM Relay 2A/132V AC/1A/264V AC 1A/150V DC 15ms	2m 300V cable	42G⊗C-9202		
		Solid State Isolated N.O. 300mA 2ms	5-pin mini	42G⊗C-9202-QD		
			2m 300V cable	42G⊗C-9203		
4-pin mini	42G⊗C-9203-QD					
4-pin AC micro	42G⊗C-9203-QD1					

⊗ R for standard (i.e. 42GRC-9200)
T for timing (i.e. 42GTC-9200)

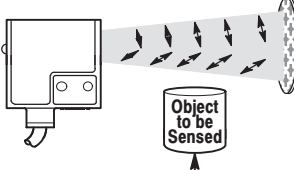
Product Selection (continued)

Sensing Mode	Operating Voltage Supply Current	Sensing Distance	Output Energized	Output Type Capacity Response Time	Connection Type	Catalog Number
 <p>RightSight Field of View: 1.5° Emitter LED: Visible red 660nm</p>	21.6-264V AC/DC 15mA	25mm (1in) to 1m (3.28ft)	Dark Operate	N-MOSFET/100mA 8.3ms	2m 300V cable	42EF-C2SCA-A2
					4-pin AC micro	42EF-C2SCA-G4
	10.8-30V DC 35mA			NPN/PNP 100mA 0.5ms	2m 300V cable	42EF-C2KBA-A2
					4-pin DC micro	42EF-C2KBA-F4
			4-pin pico	42EF-C2JBA-Z15		
Light Operate						

Linear Polarized Sensors for Detection of Clear Films

 <p>7000 Field of View: 3° Emitter LED: Visible red 660nm</p>	11-28V DC 46mA	50mm (2in) to 1.5m (4.9ft)	Complement- ary N.O./N.C.	NPN 100mA 1ms	3m cable	42SMU-7250
					4-pin DC micro	42SMU-7250-QD
				PNP 100mA 1ms	3m cable	42SMU-7251
					4-pin DC micro	42SMU-7251-QD

Circular Polarized Sensors for Detection of Clear Objects (Bottles, Clear Packages)

 <p>7000 Field of View: 3° Emitter LED: Visible red 660nm</p>	11-28V DC 46mA	50mm (2in) to 1.5m (4.9ft)	Complement- ary N.O./N.C.	NPN 100mA 1ms	3m cable	42SMU-7260
					4-pin DC micro	42SMU-7260-QD
				PNP 100mA 1ms	3m cable	42SMU-7261
					4-pin DC micro	42SMU-7261-QD

Cordsets and Accessories

Description	Catalog Number	Description	Catalog Number	Description	Catalog Number
2m (6.5ft), 4-pin DC Micro QD Cordset	889D-F4AC-2	1.8m (6ft) 5-pin Mini QD Cordset	889N-F5AF-6F	Mounting Bracket Swivel/Tilt for RightSight	60-2649
2m (6.5ft) 5-pin DC Micro QD Cordset	889D-F5AC-2	2m (6.5ft), 4-pin Pico QD Cordset, Straight	889P-F4AB-2	Mounting Bracket Swivel/Tilt for 9000 & 10000	60-2681
2m (6.5ft), 4-pin AC Micro QD Cordset, Straight	889R-F4AEA-2	Mounting Bracket Swivel/Tilt for 7000	60-2619	Reflectors	92-90 (included)
1.8m (6ft) 4-pin, Mini QD Cordset	889N-F4AF-6F				

Refer to page R1-94 for cordsets and accessories.