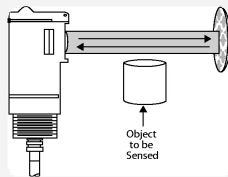
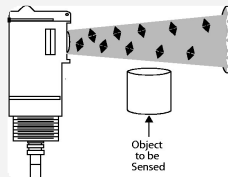
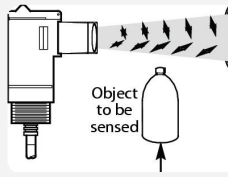
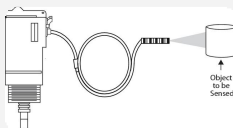
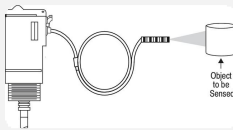
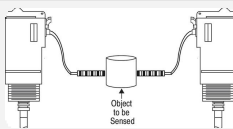


Series 9000

Product Selection

Sensing Mode		Operating Voltage	Light Source	Sensing Distance	Output Type	Sensor Type	Cat. No.\$		
Retroreflective		10...30V DC	Visible red 660 nm	0.050...9.1 m (0.16...30 ft)	PNP and NPN (DC models), SPDT relay (AC/DC models), MOSFET (AC/DC models)	Standard ON/OFF	42GRU-9000-QD		
		10...55V DC; 20...40V AC			NPN and PNP	Timing	42GTU-9000-QD		
					PNP and NPN both sensor and diagnostic output (DC models)	Diagnostic	42GDU-9000-QD		
					SPDT EM Relay	Standard ON/OFF	42GRU-9001-QD		
		70...264V AC/DC			N-MOSFET	Timing	42GTU-9001-QD		
						Standard ON/OFF	42GRU-9002-QD		
						Timing	42GTU-9002-QD		
						Standard ON/OFF	42GRU-9003-QD		
		90...264V AC/DC			SPST N.O Relay‡	Timing	42GTU-9003-QD		
						Diagnostic	42GDU-9004-QD		
Polarized Retroreflective		10...30V DC	Infrared 660 nm	0.050...4.9 m (0.16...16 ft)	NPN and PNP	Standard ON/OFF	42GRU-9200-QD		
		10...55V DC; 20...40V AC			SPDT EM Relay	Timing	42GTU-9200-QD		
						Diagnostic	42GDU-9200-QD		
						Standard ON/OFF	42GRU-9201-QD		
		70...264V AC/DC			N-MOSFET	Timing	42GTU-9201-QD		
						Standard ON/OFF	42GRU-9202-QD		
						Timing	42GTU-9202-QD		
						Standard ON/OFF	42GRU-9203-QD		
		90...264V AC/DC			SPST N.O Relay‡	Timing	42GTU-9203-QD		
						Diagnostic	42GDU-9204-QD		
		Clear Object Detection		10...30V DC	Visible red 660 nm	0.050...1.2 m (0.16...4 ft)	NPN and PNP	Standard ON/OFF	42GRC-9200-QD
				70...264V AC/DC			SPDT EM Relay	Timing	42GTC-9200-QD
Standard ON/OFF	42GRC-9202-QD								
Timing	42GTC-9202-QD								
			N-MOSFET	Standard ON/OFF	42GRC-9203-QD				
				Timing	42GTC-9203-QD				

		10...55V DC; 20...40V AC				SPDT EM Relay	Standard ON / OFF	42GRR-9001-QD
						Standard ON / OFF	42GRR-9002-QD	
						Timing	42GTR-9002-QD	
		N-MOSFET				Standard ON / OFF	42GRR-9003-QD	
					Timing	42GTU-9203-QD		
		0.050...4.9 m (0.16...16 ft)			Depends on Transmitted Beam Emitter	SPST N.O Relay‡	Diagnostic	42GDR-9004-QD
								42GDR-9005-QD
		90...264V AC / DC			Class 1 Laser	0.025...152 m (0.08...500 ft)	NA Transmitted Beam Emitter	NA
10...264V AC / DC	Depends on Transmitted Beam Emitter	NPN and PNP	Standard ON / OFF	42GRR-90L0-QD				
10...30V DC							42GRR-90L0-QD	
70...264V AC / DC		SPDT EM Relay				42GRR-90L2-QD		
Small Aperture Fiber Optic		10...30V DC	Visible red 660 nm	Depends on fiber optic cable	NPN and PNP	Standard ON / OFF	42GRF-9100-QD	
						Timing	42GTF-9100-QD	
		10...55V DC; 20...40V AC			SPDT EM Relay	Standard ON / OFF	42GRF-9101-QD	
						Timing	42GTF-9101-QD	
		70...264V AC / DC				Standard ON / OFF	42GRF-9102-QD	
						Timing	42GTF-9102-QD	
		N-MOSFET			Standard ON / OFF	42GRF-9103-QD		
					Timing	42GTF-9103-QD		
Large Aperture Fiber Optic		10...30V DC	Infrared 880 nm	Depends on fiber optic cable	NPN and PNP	Standard ON / OFF	42GRF-9000-QD	
						Timing	42GTF-9000-QD	
						Diagnostic	42GDF-9000-QD	
		10...55V DC; 20...40V AC			SPDT EM Relay	Standard ON / OFF	42GRF-9001-QD	
						Timing	42GTF-9001-QD	
		70...264V AC / DC				Standard ON / OFF	42GRF-9002-QD	
						Timing	42GTF-9002-QD	
		N-MOSFET			Standard ON / OFF	42GRF-9003-QD		
Timing	42GTF-9003-QD							
Extended Range Large Aperture Fiber Optic		10... 264V AC / DC	Infrared 880 nm	See Typical Sensing Range Table for Extended Range Fiber Optic	NA Transmitted Beam Emitter‡	NA	42GRLF-9040-QD	
		10...30V DC			NPN and PNP	Standard ON / OFF	42GRRF-9000-QD	
		70...264V AC / DC			SPDT EM Relay		42GRRF-9002-QD	
Recommended standard 4-pin DC micro (M12) quick-disconnect cordset.								889D-F4AC-2
Recommended standard 4-pin AC micro (M12) quick-disconnect cordset.								889D-F4AEA-2

★ **Connection Options:** The -QD suffix describes a 4-pin DC micro (M12) integral QD for DC models, a 5-pin mini QD for SPDT EM Relay models and a 4-pin mini (M12) integral QD for N-MOSFET models. For additional connection options:

- Remove the -QD suffix for a 2 m cable without QD (Example: 42GRU-9200).
- For NPN and PNP models replace the -QD suffix with a -QD1 for a 4-pin mini integral QD (for example, 42GRU-9200-QD1). For N-MOSFET models, replace the -QD suffix with a -QD1 for a 4-pin AC micro (M12) integral QD (for example, 42GRU-9203-QD1) .
- Refer to www.ab.com/e-tools or ProposalWorks for available connection options in 600V 2 m cables.
- Diagnostic models are only available with QD options.

‡ SPDT EM Relay with N.O. and N.C. outputs for diagnostics models.

Typical Sensing Distance—Extended Range Infrared Fiber Optic

Description	Sensing Distance			Cat. No.
	Fiber Cable Only	Fiber with 60-1844 Range Extender	Fiber with 60-2559 Range Extender	
42GRLF-9040 with Individual Fiber Optic Cable	914 mm (36 in.)	6 m (20 ft)	12 m (40 ft)	43GT-FAS25SL
	1.2 m (4 ft)	7.6 m (25 ft)	15.2 m (50 ft)	43GR-FAS25SL

Description	Sensing Distance			Cat. No.
	Fiber Cable Only	Fiber with 60-2323 Range Extender	Fiber with 60-2738 Range Extender	
42GRLF-9040 with Bifurcated Fiber Optic Cable	914 mm (36 in.)	6 m (20 ft)	12 m (40 ft)	43GT-TBB25SL
	1.2 m (4 ft)	7.6 m (25 ft)	15.2 m (50 ft)	43GR-TBB25SL