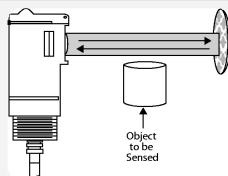
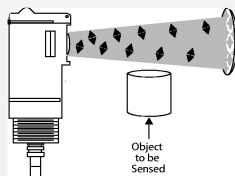
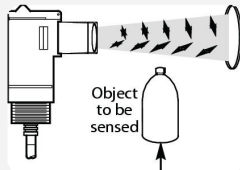
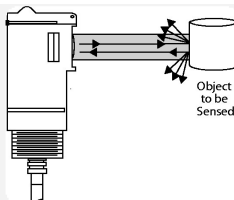


Series 9000

Product Selection

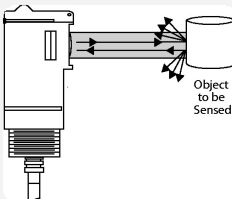
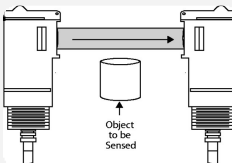
Sensing Mode		Operating Voltage	Light Source	Sensing Distance	Output Type	Sensor Type	Cat. No. \$		
Retroreflective		10...30V DC	Visible red 660 nm	0.050...9.1 m (0.16...30 ft)	PNP and NPN (DC models), SPDT relay (AC/DC models), MOSFET (AC/DC models)	Standard ON/OFF	42GRU-9000-QD		
					NPN and PNP	Timing	42GTU-9000-QD		
					PNP and NPN both sensor and diagnostic output (DC models)	Diagnostic	42GDU-9000-QD		
		10...55V DC; 20...40V AC			SPDT EM Relay	Standard ON/OFF	42GRU-9001-QD		
						Timing	42GTU-9001-QD		
		70...264V AC/DC				Standard ON/OFF	42GRU-9002-QD		
						Timing	42GTU-9002-QD		
					N-MOSFET	Standard ON/OFF	42GRU-9003-QD		
						Timing	42GTU-9003-QD		
		90...264V AC/DC			SPST N.O Relay‡	Diagnostic	42GDU-9004-QD		
		42GDU-9005-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		
						Timing	42GTU-9200-QD		
						Diagnostic	42GDU-9200-QD		
		10...55V DC; 20...40V AC			SPDT EM Relay	Standard ON/OFF	42GRU-9201-QD		
						Timing	42GTU-9201-QD		
		70...264V AC/DC				Standard ON/OFF	42GRU-9202-QD		
						Timing	42GTU-9202-QD		
					N-MOSFET	Standard ON/OFF	42GRU-9203-QD		
						Timing	42GTU-9203-QD		
		90...264V AC/DC			SPST N.O Relay‡	Diagnostic	42GDU-9204-QD		
							42GDU-9205-QD		
		10...30V DC			Class 1 Laser	0.3...40 m (1...130 ft)	NPN and PNP (DC only), EM relay	Standard ON/OFF	42GRU-92L0-QD
		105...132V AC					SPDT EM Relay	Standard ON/OFF	42GRU-92L2-QD
		Clear Object Detection				10...30V DC	Visible red 660 nm	0.050...1.2 m (0.16...4 ft)	NPN and PNP
	Timing		42GTC-9200-QD						
70...264V AC/DC			SPDT EM Relay	Standard ON/OFF		42GRC-9202-QD			
				Timing		42GTC-9202-QD			
			N-MOSFET	Standard ON/OFF		42GRC-9203-QD			
				Timing		42GTC-9203-QD			

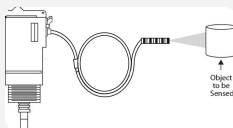
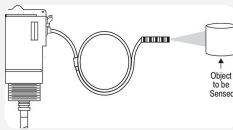
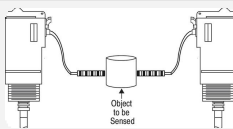
Diffuse		10...30V DC	Visible red 660 nm	0.050...1.5 m (0.16...5 ft)	NPN and PNP	Standard ON/OFF Linear Adjustment	42GLP- 9000-QD
		10...55V DC; 20...40V AC				Standard ON/OFF Teach Push Button	42GSP- 9000-QD
						Standard ON/OFF	42GRP- 9000-QD
						Timing	42GTP- 9000-QD
						Diagnostic	42GDP- 9000-QD
		70...264V AC/DC				Standard ON/OFF	42GRP- 9001-QD
						Timing	42GTP- 9001-QD
						Standard ON/OFF	42GRP- 9002-QD
						Timing	42GTP- 9002-QD
		90...264V AC/DC				Standard ON/OFF	42GRP- 9003-QD
						Timing	42GTP- 9003-QD
						Diagnostic	42GDP- 9004-QD
42GDP- 9005-QD							
10...30V DC	Class 1 Laser	1...800 mm (0.03...31.5 in.)	NPN and PNP	Standard ON/OFF	42GRP- 92L0-QD		
105...132V AC				SPDT EM Relay	42GRP- 92L2-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

5 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.

Sensing Mode		Operating Voltage	Light Source	Sensing Distance	Output Type	Sensor Type	Cat. No.★
Diffuse		10...30V DC	Infrared 880 nm	0.050...3.04 m (0.16...10 ft)	NPN and PNP	Standard ON/OFF	42GRP-9040-QD
		Timing				42GTP-9040-QD	
		10...55V DC; 20...40V AC			SPDT EM Relay	Standard ON/OFF	42GRP-9041-QD
						Timing	42GTP-9041-QD
		70...264V AC/DC				Standard ON/OFF	42GRP-9042-QD
						Timing	42GTP-9042-QD
		70...264V DC; 40...264V AC			N-MOSFET	Standard ON/OFF	42GRP-9043-QD
						Timing	42GTP-9043-QD
10...30V DC		0.050...4.2 m (0.16...14 ft)	NPN and PNP	Standard ON/OFF	42GRP-9070-QD		
70...264V AC/DC		50.8 mm...4.2 m (2 in...14 ft)	SPDT EM Relay	Standard	42GRP-9072-QD		
Transmitted Beam		10...30V DC	Infrared 880 nm	0.025...61 m (0.83...200 ft)	NA Transmitted Beam Emitter†	NA	42GRL-9000-QD
				0.025...152 m (0.83...500 ft)			42GRL-9040-QD
				Depends on Transmitted Beam Emitter	NPN and PNP	Standard ON/OFF	42GRR-9000-QD
						Timing	42GTR-9000-QD
						Diagnostic	42GDR-9000-QD

		10...55V DC; 20...40V AC			SPDT EM Relay	Standard ON / OFF	42GRR-9001-QD	
		70...264V AC/DC				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
		90...264V AC/DC						42GDR-9005-QD
		10...264V AC/DC			Class 1 Laser	0.025...152 m (0.08...500 ft)	NA Transmitted Beam Emitter	NA
10...30V DC	Depends on Transmitted Beam Emitter	NPN and PNP	Standard ON / OFF	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.

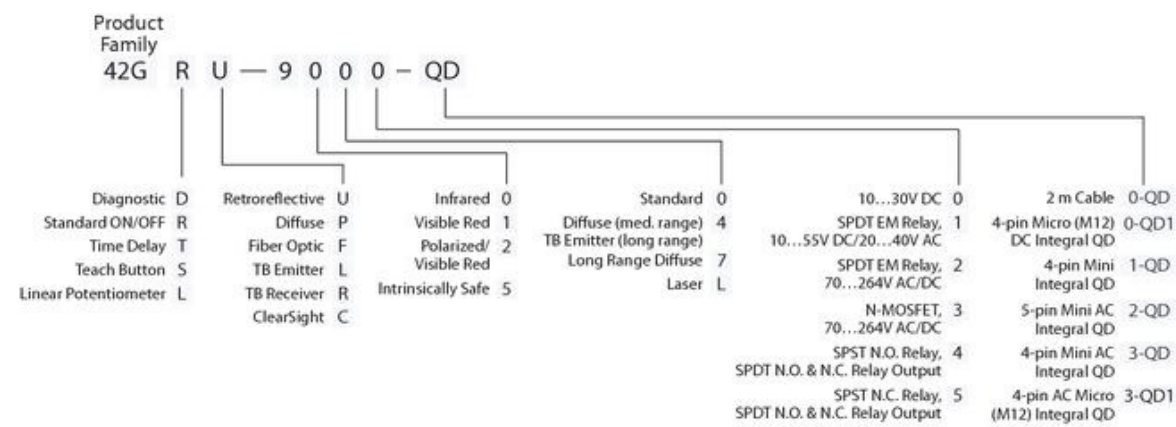
‡ SPDT EM Relay with N.O. and N.C. outputs for diagnostics models.

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

Cat. No.
Explanation



The cat. no. structure is for reference only. Please do not use this to create a cat. no. as the result may be unavailable.