

42CA General Purpose Photoelectric Sensors

Enhanced Features and New High-Speed Models

Rockwell Automation introduces an improved and expanded line of Allen-Bradley 42CA general purpose photoelectric sensors. Packed with enhanced features, these easy-to-use sensors are available in a full-range of sensing modes and distances and are an excellent choice for material handling, packaging and assembly applications.

Enhancements to the 42CA series:

- Complementary light and dark operate outputs allow the user to address multiple applications with a single part number
- Two LED indicators provide status of power, output, unstable operation and short-circuit protection
- Faster 1 ms response time on most models — a vast improvement from the 2 ms and 4 ms response time of the original series

New Extended Range Models with Fast Response Time

Two new extended range models — the standard diffuse 1000 mm and the retroreflective 7.2 m — offer a fast 0.5 ms response time making them an ideal solution for high-throughput production lines.

Easy to install, these durable, self-contained sensors are in an IP67 industry standard 18 mm cylindrical plastic housing and are available in five sensing modes including transmitted beam, diffuse, retroreflective, polarized retroreflective and background suppression. They also feature a flat lens design that minimizes the collection of dust and debris while allowing for easy sensor cleanup.



Features:

- Complementary light and dark operate outputs (selectable light or dark operate on background suppression models)
- Two LED indicators provide status of power, output, unstable operation and short-circuit protection
- Improved 1 ms response time on most models — a vast improvement from the 2 ms and 4 ms response time of the original series
- Extended range high-speed models with a 0.5 ms response time
- Patented ASIC design offers linear sensitivity adjustment, stability indication and excellent noise immunity.
- Flat lens reduces dust collection and improves ease of cleaning
- Visible red LED light source on polarized retroreflective models
- Input to disable light source on transmitted beam emitter for testing and scanning purposes

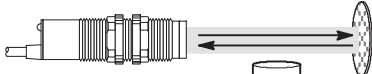
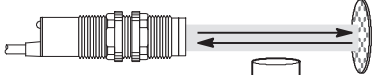
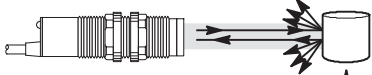
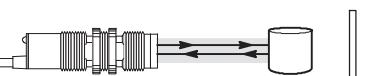
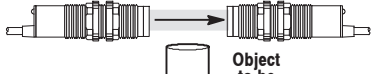
Benefits:

- Industry standard 18 mm cylindrical plastic housing with IP67 rating.
- A cost-effective sensing solution for general purpose applications
- Fast response time allows manufacturers to increase throughput

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Product Selection

Sensing Mode	Sensing Range	Response Time	Output Energized	Sensitivity Adjustment	Cat. No.❶
 Retroreflective	4.8 m (15.74 ft)	1 ms	Complementary light and dark operate	No	42CA-U2MPB-D4
	7.2 m (23.6 ft)	0.5 ms		Yes	42CA-U2MPA-D4
 Polarized Retroreflective	3.8 m (12.5 ft)	1 ms		No	42CA-P2MPB-D4
 Standard Diffuse	100 mm (3.94 in.)	1 ms		Yes	42CA-D1MPAE-D4❷
	400 mm (15.7 in.)	1 ms		Yes	42CA-D1MPAJ-D4
	1000 mm (39.4 in.)	0.5 ms		Yes	42CA-D1MPAL-D4
 Background Suppression	50 mm (1.97 in.)	0.5 ms	Selectable light or dark operate	No	42CA-B2LPBC-D4❷
	100 mm (3.94 in.)	0.5 ms		No	42CA-B2LPBE-D4❷
 Transmitted Beam	16 m (52.5 ft)	NA	NA (Emitter)	No	42CA-E1EZB1-D4
		1 ms	Complementary light and dark operate	Yes	42CA-R1MPA1-D4

- ❶ Suffix -D4 denotes 4-pin DC micro connection type. For 2 m cable without QD replace suffix -D4 with -A2 (e.g. 42CA-P2MPB-A2). All models shown in selection table above are PNP output versions. Replace the eighth digit (**P**) with **N** for NPN (example: 42CA-U2MNB-D4 is NPN).
- ❷ Refer to www.ab.com/sensors for updated information.

Cordsets and Accessories

Cordset		Accessories			
Description	Cat. No.	Description	Cat. No.	Description	Cat. No.
DC Micro QD Cordset, 4-pin, 2 m	889D-F4AC-2	Mounting Bracket	60-2657	Reflector	92-124
Right Angle DC Micro QD Cordset, 4-pin, 2 m	889D-R4AC-2	Straight Mounting Bracket	60-2656	Reflector	92-47
		Snap-Clamp Mounting Bracket	871A-SCBP18		
		Right Angle Mounting Bracket	60-2654		

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