

42KD Miniature Photoelectric Sensors



High-performance Sensors for Extremely Confined Spaces

Features and Benefits

- Our smallest rectangular photoelectric sensor 21.1 mm x 14.6 mm x 8 mm (0.83 in. x 0.57 in. x 0.31 in.)
 - Installs easily in extremely confined spaces
- Visible red laser models
 - Polarized retroreflective
 - Fixed and adjustable background suppression
- Sensing range up to 1.6 m (5.25 ft)
- Auto PNP/NPN output helps reduce stocking cost and simplifies selection, installation and maintenance
- High-visibility status indicators
- Push button teach offers easy commissioning
- Dovetail adjustable bracket allows for ease of mounting and installation
- IP67 and ECOLAB rated
- Ideal for automotive, packaging and material handling applications



Rockwell Automation® is pleased to introduce the Allen-Bradley® 42KD Miniature family of photoelectric sensors. This family of LED sensors is the most complete family of miniature sensors on the market. Although tiny in size, these high-performance sensors are reliable and easy to install in extremely confined spaces.

The 42KD sensor features a visible red LED light source and is available in polarized retroreflective and fixed/adjustable background suppression sensing modes. With a sensing range up to 1.6 m (5.25 ft), these powerful sensors have the option of light operate or dark operate and a unique auto PNP/NPN output which helps reduce stocking cost and simplifies selection, installation and maintenance. The 42KD background suppression models provide reliable object detection independent of the target size, shape or color. Other important features include a highly-visible status indicator, push button teach and dovetail adjustable mounting bracket.

The 42KD sensors are IP67 and ECOLAB rated and provide an excellent solution for a broad range of industries including automotive, packaging and material handling.

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Product Selection

Sensing Mode	Light Source	Sensing Distance	Sensitivity Adjustment	Output Configuration	Response Time	Catalog Number
Polarized retroreflective	Visible red	0.1...1.6 m (0.33...5.25 ft)	Teach button	Teachable light or dark operate, auto PNP or NPN	500 μs	42KD-P2LAT1-Y4
Background suppression		5...70 mm (0.2...2.75 in.)				
		1...15 mm (0.04...0.59 in.)	None	Selectable light or dark operate by remote teach, auto PNP or NPN		42KD-B2LAR1-Y4
		1...30 mm (0.04...1.81 in.)				42KD-B2LAR2-Y4
		1...50 mm (0.04...1.97 in.)				42KD-B2LAR3-Y4

Connection options: The suffix -Y4 describes a 4-pin Pico (M8) QD on a pigtail.

For additional connection options replace -Y4 with -A2 for a 2-meter cable without connector. For example: 42KD-P2LAT1-A2.

Accessories

2 m (6.5 ft) 4-pin M8 Pico QD cordset, straight	889P-F4AB-2
2 m (6.5 ft) 4-pin M8 Pico QD cordset, right angle	889P-R4AB-2
Dovetail adjustable bracket for mounting	Included with product
Reflector, 51 mm x 61 mm (2 in. x 2.5 in.), rectangular with mounting holes	92-118



Bottling application: A 42KD sensor ensures a bottle cap is in place prior to a cartoning process.



Pigtail with 4-pin pico M8 QD or cable options.



Adjustable dovetail mounting bracket provided with sensor for ease of mounting and installation.

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