42EA RightSight S18 and 42JA VisiSight M20A Photoelectric Sensors

Economical and easy-to-apply global sensing solutions

Features and Benefits

- Low-cost general-purpose products ideal for material handling, packaging and other industries
- Variety of sensing modes in industry standard housings to address a wide range of applications
- Multiple connection styles, adjustable sensing ranges (select models) and output types for application flexibility
- IP67 enclosure ratings for harsh industrial conditions
- 360° visible LED status indicators

The Allen-Bradley® RightSight™ and VisiSight™ families of photoelectric sensors from Rockwell Automation are ideal for material handling, packaging and assembly applications. These lines also address the small form factor needs of many other industries including Life Sciences, Pharmaceutical, Food and Beverage and Home, Health and Beauty. The 42EA RightSight and 42JA VisiSight sensors offer a wide range of sensing modes, mounting options and unique features that make them optimal solutions for global use.

Plus, all models combine a visible red light source for ease of alignment during setup and maintenance. Adjustment knobs on select models for sensing range and light or dark operation, as well as multiple connection options, allow for ease of installation and setup.

The 42EA RightSight S18 line of general purpose sensors is designed for light- to medium-level industrial use. These sensors offer the performance of larger solutions in a smaller, more adaptable package to deliver excellent detection capabilities where size and shape matter. Combining basic functionality with an industry standard 18 mm nose-mount housing, the 42EA RightSight S18 – like its rectangular VisiSight counterpart – features a visible red light source, adjustable sensing range and multiple connection options.

The 42JA VisiSight M20A offers a full range of sensing modes in a sealed, compact, cavity-free housing that minimizes the collection of dust and debris while allowing for easy sensor cleanup. The rectangular housing features industry standard 25.4 mm (1 in.) mounting hole spacing, with threaded metal inserts for faster installation and replacement.

42EA RightSight and 42JA VisiSight Comparison

		42EA RightSight S18	42JA VisiSight M20A
Sensing Modes	*Diffuse*	450 mm	1 m
	Background Suppression (BGS)	50 mm, 100 mm	Adjusted - 100 mm, 350 mm
	Background Reflection (BGR)	-	Adjusted - 350 mm
	Polarized Retroreflective	3.5 m	5 m
	Clear Object	-	2.5 m
	Transmitted Beam (T-Beam)	10 m	10 m (red), 15 m (IR)
	Light Source	Visible Red (BGS, P-Retro)	Visible Red (BGS, P-Retro)
		Infrared (T-Beam, Diffuse)	Infrared (T-Beam)
	Output Mode	Complementary L.O. and D.O.	Selectable L.O. or D.O.
	Output Type	NPN and PNP (Push-pull)	NPN or PNP by Cat No.
	Operating Voltage	DC	DC
	Response Time	1 ms	1 ms
	Enclosure Rating	IP67	IP67

42EA RightSight Product Selection

Sensing Mode	Light Source	Sensing Distance	Sensitivity Adjustment	Output Function	Output Type	Catalog No.[1]
Polarized Retroreflective	Visible red	3.5 m (11.48 ft) with 92-125 reflector	Adjustable knob	Selectable light or dark operate	PNP and NPN	42EA-P2MEA1-D4
Diffuse	Infrared	10…450 mm (0.39…17.72 in.)	Adjustable knob	Selectable light or dark operate	PNP and NPN	42EA-D1MEA1-D4
Background Suppression	Visible red	10…50 mm (0.39…1.97 in.)	No adjustment knob	Selectable light or dark operate	PNP and NPN	42EA-B2MEB1-D4
		10…100 mm (0.39…3.94 in.)				42EA-B2MEB2-D4
Transmitted Beam	Infrared	10 m (32.81 ft)	No adjustment knob	Selectable light or dark operate	N/A	42EA-E1EZB1-D4
	Infrared		Adjustable knob		PNP and NPN	42EA-R1MEA1-D4

[1] Replace the x with the following connection option suffixes:
D4: An integral 4-pin DC micro (M12)
P4: An integral 4-pin Pico (M8) QD
A2: A 2 m (6.6 ft) PVC cable
RJ11: An RJ11 connector on a 2 m (6.6 ft) length cable (only available for 42EA-P2MEA1-RJ11)

Additional connection options may be available. See ProposalWorks™ for available options by sensing mode.

Accessories

Description	Catalog No.
DC Micro QD Cordset, straight, 4-pin, 2 m (6.6 ft)	889D-F4AC-2
Pico QD Cordset, straight, 4-pin, 2 m (6.6 ft)	889P-F4AB-2
Mounting Bracket, swivel/tilt	60-2649
Reflector, 76 mm (3 in.) diameter	92-39
Reflector, 32 mm (1.25 in.) diameter	92-47

42JA VisiSight Product Selection

Sensing Mode	Light Source	Sensing Distance	Sensitivity Adjustment	Output Function	Output Type	Catalog No.[1]
Polarized Retroreflective	Visible red	0.01…5 m (0.3…16.4 ft) with 92-125 reflector	Adjustable knob	Selectable light or dark operate	NPN	42JA-P2LNA1-F4
					PNP	42JA-P2LPA1-F4
Clear Object Detection	Visible red	0.01…2.5 m (0.3…8.2 ft) with 92-125 reflector	Adjustable knob	Selectable light or dark operate	NPN	42JA-C2LNA1-F4
					PNP	42JA-C2LPA1-F4
Diffuse	Visible red	3…1000 mm (0.1…39.4 in.)	Adjustable knob	Selectable light or dark operate	NPN	42JA-D2LNA1-F4
					PNP	42JA-D2LPA1-F4
Wide Angle Diffuse	Visible red	0…200 mm (0…7.9 in.)	Adjustable knob	Selectable light or dark operate	PNP	42JA-W2LPA1-F4
Background Suppression	Visible red	3…100 mm (0.1…3.9 in.)	Adjustable knob	Selectable light or dark operate	NPN	42JA-B2LNA1-F4
					PNP	42JA-B2LPA1-F4
		3…350 mm (0.1…13.8 in.)			NPN	42JA-B2LNA2-F4
					PNP	42JA-B2LPA2-F4
Background Reflection	Visible red	3…350 mm (0.1…13.8 in.)	Adjustable knob	Selectable light or dark operate	NPN	42JA-N2LNA2-F4
					PNP	42JA-N2LPA2-F4
Transmitted Beam	Visible red	10 m (32.8 ft)	No adjustable knob	Selectable light or dark operate	N/A	42JA-E2EZB1-F4
			Adjustable knob		NPN	42JA-R2LNA1-F4
			Adjustable knob		PNP	42JA-R2LPA1-F4
	Infrared	15 m (49.2 ft)	No adjustable knob		N/A	42JA-E1EZB1-F4
			Adjustable knob		NPN	42JA-R1LNA1-F4
			Adjustable knob		PNP	42JA-R1LPA1-F4

[1] Connection options: The following suffixes describe the available connection options:
F4: Describes a 4-pin DC micro (M12) quick-disconnect on a 300 mm (11.8 in.) length pigtail
P4: Describes a 4-pin Pico (M8) integral quick-disconnect
Y4: Describes a 4-pin Pico (M8) quick-disconnect on a 300 mm (11.8 in.) length pigtail
A2: Describes a 2 m (6.6 ft) PVC cable

Additional connection options may be available.
See https://rok.auto/configuration for available options by sensing mode.

Accessories

Description	Catalog No.
DC Micro (M12) QD Cordset, straight, 4-pin, 2 m	889D-F4AC-2
DC Pico (M8) QD Cordset, straight, 4-pin, 2 m	889P-F4AB-2
DC Pico (M8) QD Cordset, right angle, 4-pin, 2 m	889P-R4AB-2
Mounting Bracket, stainless steel, L-shaped for 42JT and 42JS	60-BJS-L1
Mounting Bracket, stainless steel, L-shaped for 42JS VisiSight	60-BJS-L2
Mounting Bracket, stainless steel	60-BKTL-SS

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