

42JT VisiSight Photoelectric Sensors



A Simple Sensing Solution

Features and Benefits

- Embedded IO-Link communication protocol helps minimize downtime and increase productivity
- IO-Link functionality and unique Auto PNP/NPN output reduce stocking cost and simplify installation and maintenance
- Class 1 "Eye Safe" red laser and visible red LED models
- Teach pushbutton for sensitivity and LO/DO selection (can be locked out)
- Alignment indication in long range models
- Industry standard mounting holes plus dove-tail mounting option
- IP69K and ECOLAB rated enclosure

What is IO-Link?

IO-Link is a worldwide open-standard protocol that allows sensors to easily integrate into The Connected Enterprise. Benefits of IO-Link technology include:

- Reduced inventory and operating costs
- Increased uptime/productivity
- Simplified design, installation, setup and maintenance
- Enhanced flexibility and scalability

IO-Link enabled sensors offer advanced features and diagnostics that can only be accessed through an IO-Link master.

- Real-time diagnostics and sensor health
- Automatic device configuration (ADC)
- Multiple profiles
- Descriptive tags



1732 ArmorBlock®
IO-Link Master



Rockwell Automation announces enhancements to the 42JT VisiSight™ line to include embedded IO-Link functionality. IO-Link allows sensors to easily integrate into The Connected Enterprise, delivering data from the sensor directly into a control system in a very cost efficient and easy-to-use manner via an IO-Link Master and EtherNet/IP™.

The Allen-Bradley® 42JT VisiSight family offers a wide range of sensing modes and a teach push button that simplifies sensitivity adjustment and offers light vs. dark operate output selection. The unique "Auto PNP/NPN" output continuously monitors how the load is connected and automatically configures the output for proper operation. And when connected to an IO-Link master the 42JT can take advantage of advanced functionality including real-time diagnostics, automatic device configuration (ADC) and multiple job-specific profiles. Not only do these features make the 42JT VisiSight easy to apply in challenging packaging and assembly applications, but they help optimize your supply chain by reducing the number of models to be stocked by 50%.

The 42JT VisiSight offers a small rectangular package with visible light beam for ease of alignment and industry standard mounting hole spacing of 25.4 mm.

LISTEN.
THINK.
SOLVE.®

42JT, IO-Link Version 1.1

- IO-Link is a worldwide open-standard peer-to-peer serial communication protocol (IEC 61131-9) that allows sensors and actuators to easily integrate into The Connected Enterprise.
- The IO-Link enabled 42JT sensor—when connected to an IO-Link master—shares device identity, parameters, real-time diagnostics and process data with the control system to optimize machine setup, maintenance and troubleshooting.
- By combining simple implementation with powerful data and diagnostics, IO-Link sensors provide simplified integration and seamless visibility of your processes to increase uptime and productivity.



1734 POINT IO Master
for POINT I/O™

42JT IO-Link Benefits

- **Teaching the sensor** can be accomplished with IO-Link via the Add-On-Profile through Studio 5000® software or by using the teach button on the sensor.
- **Low Margin Bit Indication** minimizes downtime by notifying the user when the lens is getting dirty and needs to be cleaned.
- **Application Specific Tag Names** help the user locate the sensor quickly on the machine.
- **Locking** options are available to lock local settings when operating in IO-Link mode, and therefore any user changes will not change the settings of the sensor.

Product Selection

42JT VisiSight						
Sensing Mode	Light Source	Sensing Range	Sensitivity Adjustment	Output Function	Output Type	Cat. No. (1)
Polarized Retroreflective	Visible Red	0.1 ... 6 m** (0.33 ... 19.7 ft)	Teach Button	Teachable Light Operate or Dark Operate	Auto PNP/NPN	42JT-P2LAT1-P4
	Class 1 Laser	0.05 ... 13 m*** (0.16 ... 42.7 ft)				42JT-P8LAT1-P4
Clear Object Detection	Visible Red	2 m*** (6.6 ft)	Teach Button	Teachable Light Operate or Dark Operate	Auto PNP/NPN	42JT-C2LAT1-P4
Diffuse	Visible Red	3 ... 800 mm (0.12 ... 31.5 in.)	Teach Button	Teachable Light Operate or Dark Operate	Auto PNP/NPN	42JT-D2LAT1-P4
	Class 1 Laser	5 ... 250 mm (0.20 ... 9.84 in.)				42JT-D8LAT1-P4
Background Suppression	Visible Red	1 ... 180 mm (0.04 ... 7.09 in.)	Teach Button	Teachable Light Operate or Dark Operate	Auto PNP/NPN	42JT-B2LAT1-P4
		3 ... 400 mm (0.12 ... 15.75 in.)				42JT-B2LAT2-P4
	Class 1 Laser	4 ... 120 mm (0.16 ... 4.72 in.)				42JT-B8LAT1-P4
Color Mark	White LED	12 mm (0.47 in.) ± 2.5 mm	Teach Button	Teachable Light Operate or Dark Operate	PNP or NPN (Push Pull)	42JT-F5LET1-P4
Transmitted Beam	Visible Red	0 ... 13 m (0 ... 42.65 ft)	No Adjustment	NA Transmitted Beam Emitter	-	42JT-E2EZB1-P4
			Teach Button	Complementary Light and Dark Operate	Auto PNP/NPN	42JT-R9LAT1-P4
	Class 1 Laser	0 ... 18 m (0 ... 59.05 ft)	No Adjustment	NA Transmitted Beam Emitter	-	42JT-E8EZB1-P4
			Teach Button	Complementary Light and Dark Operate	Auto PNP/NPN	42JT-R8LAT1-P4

Note: IO-Link Master Module (Catalog No. 1734-4IO1 or 1732-8IOLM12R) is required for premier IO-Link integration experience.

All sensor models are rated for 10...30V DC and can drive loads requiring up to 100 mA. ** Sensing range with 92-125 Reflector *** Sensing range with 92-118 Reflector

(1) Connection Options: The suffix -P4 describes a 4-pin Pico (M8) integral quick disconnect connector. For additional connection options, replace the suffix -P4 with: -A2: For a 2 m cable without quick-disconnect connection (for example, 42JT-P2LAT1-A2) -F4: For a 4-pin Micro (M12) quick-disconnect connection on a 150 mm (6 in.) pigtail (for example, 42JT-P2LAT1-F4). The suffix -P4 and -A2 models are ECOLAB certified.

IO-Link enabled.

Cordsets and Accessories

42JT VisiSight Accessories			
Description	Cat. No.	Description	Cat. No.
IO-Link Master Module for POINT I/O™	1734-4IOL	Mounting Bracket, Stainless Steel, L-Shaped for 42JT VisiSight	60-BJT-L2
ArmorBlock IO-Link Master	1732E-8I0LM12R	Reflector, Corner Cube, 76 mm (3 in.) diameter	92-124
DC Pico (M8) QD Cordset, Straight, 4-pin, 2 m	889D-F4AC-2	Reflector, Corner Cube, 84 mm (3.3 in.) diameter	92-125
DC Micro (M8) QD Cordset, Straight, 4-pin, 2 m	889P-F4AB-2	Reflector, Corner Cube, 32 mm (1.5 in.) diameter	92-47
DC Pico (M8) QD Cordset, Right-angle, 4-pin, 2 m	889P-R4AB-2	Reflector, Corner Cube, 100 x 100 mm (4 x 4 in.)	92-108
Mounting Bracket, Stainless Steel, L-Shaped for 42JT and 42JS	60-BJS-L1	Reflector, Micro Cube, 51 x 61 mm (2 x 2.5 in.)	92-118
Mounting Bracket, Stainless Steel, L-Shaped for 42JS VisiSight	60-BJS-L2		

Typical Applications



42JT - Detecting Presence of Bottle Cap in Packaging



42JT - Fill Level Detection in Packaging

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