

Block-style laser distance sensor with IO-link capabilities

DETECT SMALL, DARK OR TRANSPARENT OBJECTS WITH PRECISION

When you need precise measurement of object distance, our new IO-Link distance sensor is the ideal choice. Whether you want to precisely determine the location of a component, guarantee precise positioning of small parts, or reliably detect stack height, it delivers absolute accuracy.

Its fine, clearly delineated laser beam lets you detect even the smallest objects with precision. The sensor's enhanced background suppression capability allows it to detect and measure dark objects — down to 2% reflectivity. In this method, the sensor is taught the target object, which is then discerned and detected each time with high precision. This sensor can also detect transparent objects, such as plastic film or products.

The sensor also offers a switching output that you can use as a limit switch. This switchpoint capability also provides the ability to have two outputs on the same sensor.

You can also individually set the measuring range of the sensor, thanks to the analog output curve which can be adjusted to your application. And setting the sensor is easy. Both the switching point and the analog output curve can be taught using a simple key if not using IO-Link. And if using IO-link, these features and settings can be accessed using the convenient Balluff IO-Link Device Tool USB GUI interface window.

Installation is fast using a mounting bracket or dovetail clamp, which also speeds up commissioning. This Class1 red light laser sensor, in an IP67-rated housing, has a 30–200 mm range, though its actual focal length is 400 mm — so you can be assured of absolute accuracy when used within its stated range. And the 4–20 mA analog output now has scaling capability

Features

- Various measuring modes (dark measurement, multiple measurement, transparent object detection mode)
- Enhanced dark object detection and detects transparent objects
- Precise Class 1, red light laser (requires no additional protection measures)
- Intelligent data pre-processing in the sensor
- Operating hours counter with counting and time functions
- High resolution (10...100 µm)



PHOTOELECTRIC
DISTANCE SENSORS



	BOD002L
Interface	IO-Link 1.1
Switching output	2 × PNP/NPN, NO/NC, push-pull (programmable)
Analog output	Current 4...20 mA, adjustable analog curve
Operating voltage	18...30 V DC
Range	30...200 mm
IO-Link setting option	Teach-in switchpoint/window, principle of background assessment, switching output, switching function, hysteresis, time function, count function, data retention, various measuring modes (dark measurement, enhanced object detection mode, transparent object detection mode)
Function class, smart sensor	Identification, teach channel, binary data channel, variable process data, diagnostics
Light type	Laser red light, Class 1
Protection degree	IP67
Ambient temperature	-10...+70 °C
Housing material	Die-cast zinc, aluminum
Material sensing surface	Glass
Connection	M12 male, 4-pin, A-coded (rotatable)

ACCESSORIES



	BAM0043	BAM00TA	BAM00T9	BAM02ZE
Description	Mounting systems, protective bracket	Mounting bracket, steel, 25 × 28 × 40 mm, 2 adjustable axes, mounting with M4 screws	Mounting bracket, stainless steel, 20 × 50 × 26.5 mm, 2 adjustable axes, mounting with M4 and M5 screws	protective bracket

CONNECTOR



	BCC032K	BCC08R6	BCC0FL0	BCC0C5N	BCC0J7L
Description	M12 female, straight, 5-pole, 4-wire, A-coded, PUR black, 2.00 m, shielded	M12 female straight, 5 pin/ M12 male straight, 5 pin, 2 m cable, TPE	M12 female right-angle, 5 pin/ M12 male straight, 4 pin, 2 m cable, TPE	M12 female straight, 2M, TPE single-ended	M12 female right-angle, 2M, TPE single-ended