

## Precision for distance measurement

# LASER DISTANCE SENSOR WITH IO-LINK AND AMBIENT LIGHT SUPPRESSION

The BOD 24K photoelectric laser distance sensor ensures detection and positioning of objects for various tasks, including contour detection, distance determination and orientation monitoring in assembly applications. The precise laser beam allows you to reliably use the sensor even for small objects and small object details.

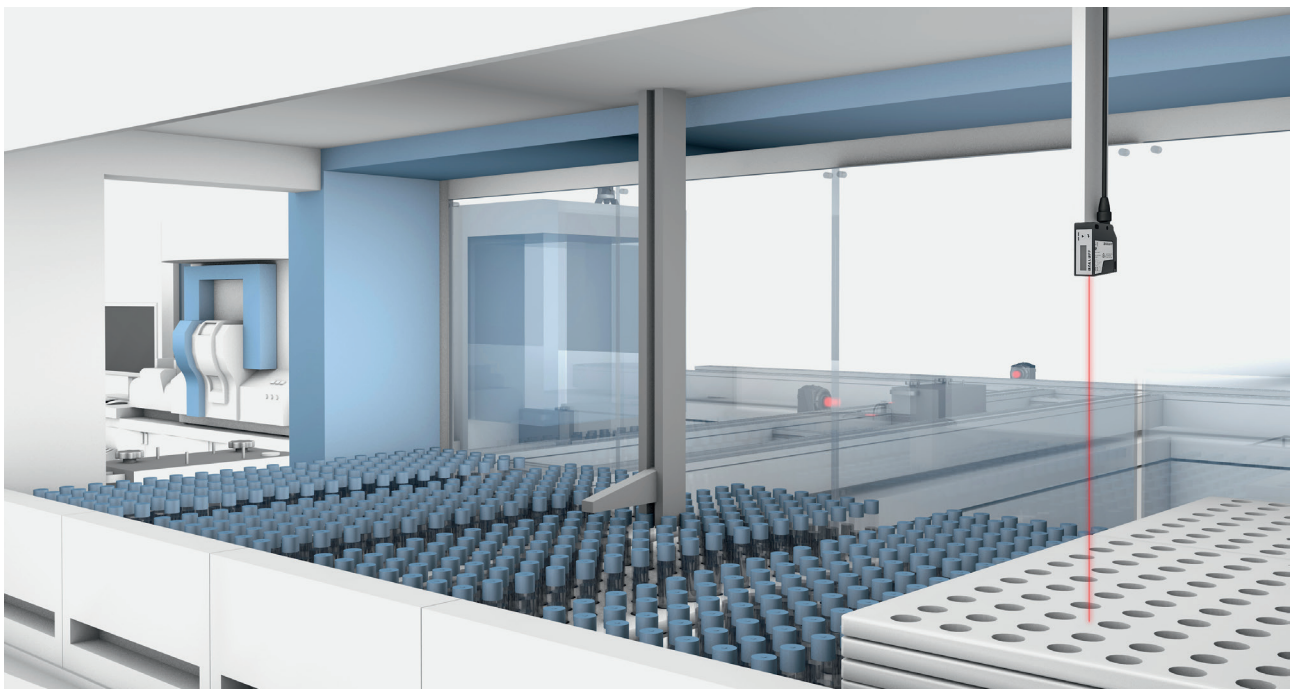
New features create marked improvements over the previous models. Selectable modes allow you to choose between IO-Link, voltage (0...10 V or 1...10 V), or analog (4...20 mA) outputs. This combines the output modes of three previous BOD 24K models into one. Other improvements include an upgrade to IO-Link v1.1, and an OLED display instead of an LCD. And the new model's class 1 laser doesn't require the protective measures needed with the previous model's class 2 laser.

The sensor provides ambient light suppression as well as filtering to eliminate possible interference. The sensor also includes a precision mode for high accuracy at reduced processing speed. Setting the various modes and functions is easy with the display and two integrated keys. Alternately, you can adjust the settings using IO-Link.

The sensor is available in two variations. The BOD002M has a 50 to 100 mm working distance and a resolution down to 10  $\mu\text{m}$ , while the BOD002N has a 50 to 650 mm working distance and a resolution down to 100  $\mu\text{m}$ . Three integrated mounting holes and a rotatable connector make installation and connection easy. A simple, standardized 4-pin M12 plug is used to connect the sensor.

### Features

- 50...100 mm or 50...650 mm working range
- Resolution to 10  $\mu\text{m}$
- Visible laser for ease of installation
- Class 1 laser – no additional protection measures needed
- Display for visualizing setup functions
- Comprehensive IO-Link added functions



## PHOTOELECTRIC DISTANCE SENSORS



	BOD002M	BOD002N
Dimension	50 × 21 × 50 mm	50 × 21 × 50 mm
Interface	<ul style="list-style-type: none"> <li>■ IO-Link 1.1</li> <li>■ Analog: voltage 0...10 V, voltage 1...10 V, current 4...20 mA (selectable)</li> <li>■ 2 × PNP/NPN NO/NC</li> </ul>	<ul style="list-style-type: none"> <li>■ IO-Link 1.1</li> <li>■ Analog: voltage 0...10 V, voltage 1...10 V, current 4...20 mA (selectable)</li> <li>■ 2 × PNP/NPN NO/NC</li> </ul>
Principle of optical operation	Triangulation	Triangulation
Beam characteristic	Divergent	Divergent
Light type	Laser, red light, laser class 1	Laser, red light, laser class 1
Light spot size	1 × 1 mm at 100 mm	1.2 × 1.2 mm at 650 mm
Range	50...100 mm	50...650 mm
Accuracy	±0.5 %	±1 %
Repeat accuracy	50 µm	50 µm
Resolution	≤ 10 µm	≤ 100 µm
Connection	M12-male, 4-pole	M12-male, 4-pole
Housing material	Plastic	Plastic
Operating voltage $U_b$	18...30 V DC	18...30 V DC



## ACCESSORIES

	BAM02ZA
Version	Mounting bracket
Use	For photoelectric distance sensors BOD 24K
Dimension	30 × 46 × 96 mm



## CONNECTIVITY

	BCC039M
Connection 1	M12 female, straight, 5-pole, A-coded
Connection 2	M12 male, straight, 4-pole, A-coded
Cable	PUR black, 2 m, drag chain compatible