

PRODUCT PROFILE

Laser Measurement Sensors

A reliable non-contact solution for your error proofing, inspection, positioning and measurement applications

Recognizing the importance of flexibility and value in your control system, Rockwell Automation continues to introduce new sensors that help make your installations simpler while addressing the market's ever-changing needs. The new Allen-Bradley 45BPD and 45BRD photoelectric sensors are intended for industrial applications requiring reliable non-contact inspection, positioning and measurement. These sensors are completely self-contained in an IP67 enclosure and do not require any external control devices which add cost and require additional mounting space. In addition, the 45BPD and 45BRD utilize a class 2 laser which has a visible red beam spot that simplifies alignment in small part detection and measurement applications. Both are excellent solutions for a wide range of non-contact measurement applications requiring sensing range up to 300mm (approximately 1 foot). Typical applications include: distance measurement, part profiling, thickness measurement, error proofing, inspection, verifying material position, hole depth, warpage and part positioning.

The 45BRD model can be set up by simply mounting the sensor such that the target is within the operating range. The 0...10V DC output is scaled linearly over the sensor's range (45...85mm) and there are no user adjustments, making the 45BRD the easiest to apply laser measurement solution available.


The 45BPD is a more advanced model that is set up easily by mounting the sensor with the target within the sensing range (30...100mm or 80...300mm) and teaching the appropriate set-points for the application via convenient Teach-In buttons on the top of the sensor. For optimal application flexibility, the 45BPD offers both a discrete PNP output and a 4...20mA analog output which is automatically scaled between the taught set-points. Plus, the 45BPD includes lock-out features to prevent tampering with the set points, a control to disable the laser during operation, and an averaging mode to smooth fluctuations for reliable detection of rough surfaces.



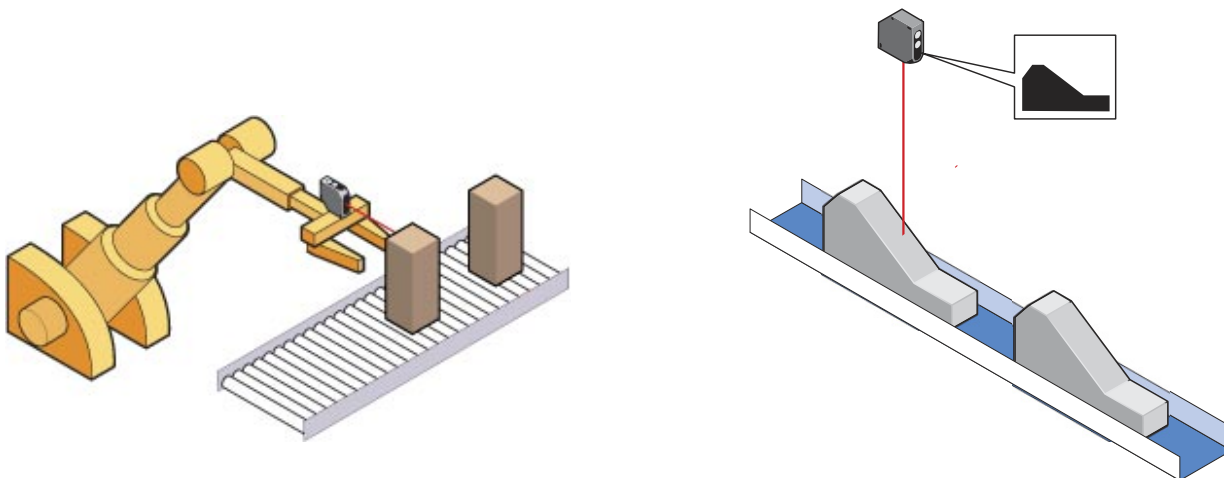
Features

- Non-contact measurement
- Visible red Class 2 laser for small beam spot and alignment
- Self-contained sensor does not require external control devices
- 270° rotatable micro QD connector
- Fixed range model has no user adjustment for ease of use
- Teach-In models provide a discrete PNP output and an analog output which is automatically scaled between taught set points
- Teach-In models have configurable discrete output (N.O./N.C.), laser disable control, averaging mode and lock-out capabilities

Ordering Information

Model	Description	Catalog Number
Fixed Range (No user adjustment)	45...85mm sensing range, 0...10V DC output, <0.8mm beam spot @ 65mm, 4-pin micro QD	45BRD-8JKB1-D4
Teach-In 	30...100mm sensing range, 4...20 mA output, <1.5mm X 3.25mm beam spot, 5-pin micro QD	45BPD-8LTB1-D5
	80...300mm sensing range, 4...20 mA output, <2.0mm X 4.5mm beam spot, 5-pin micro QD	45BPD-8LTB2-D5

Typical Applications



Accessories

Description	Catalog Number
Mounting Bracket (optional)	45BPD-BKT1
Protective Mounting Bracket (optional)	45BPD-BKT2
Cordset, 4-pin micro QD	889D-F4EC-2
Cordset, 5-pin micro QD	889D-F5AC-2

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