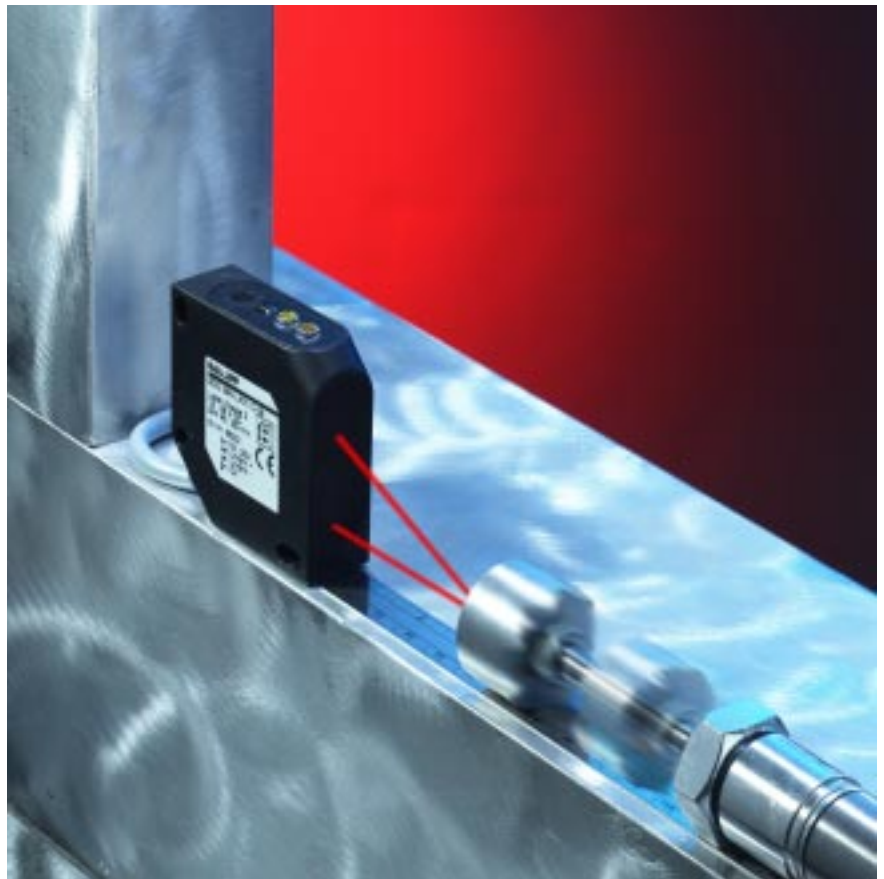


BALLUFF

New **Solutions** for
Critical Measurement Applications
...only from Balluff



BOD-26K laser measurement sensor

BOD-26K Series

The BOD-26K family...

Precision laser measurement becomes practical

The BOD-26K utilizes the accuracy of laser light to produce an analog distance measurement sensor with resolution down to $80\mu\text{m}$. The pin-point size laser spot makes this versatile sensor ideal for non-contact dimensional measurement of small parts, tool checks, surface profiling in any application that requires precise absolute position measurement.

The BOD-26K uses the laser light beam in a triangulation arrangement to determine the distance from the sensor to the target. Triangulation uses a fixed beam of laser light to reflect off a target (see figure1). The reflected light is received through a lens that acts as a pivot point for the received light. This produces a scaled down version of the target range. A position sensitive receiver interrupts the position into a voltage. Target distance corresponds to the sensor's analog output voltage (0-10 Vdc). The target range is 45-85mm.

Enclosed in the same innovative block housing as the BOS-26K family, the BOD-26K has an optional mounting bracket which makes installation and alignment simple. A highly visible LED on the sensor emits a green light when operating under stable conditions and turns red when the target goes out of range. The impact-resistance ABS housing is sealed to IP67 standards and is CE-rated. The sensor incorporates reverse-polarity and short-circuit protection. Laser Class II rating means no additional safety measures are required. 18-28 Vdc powers the sensor.

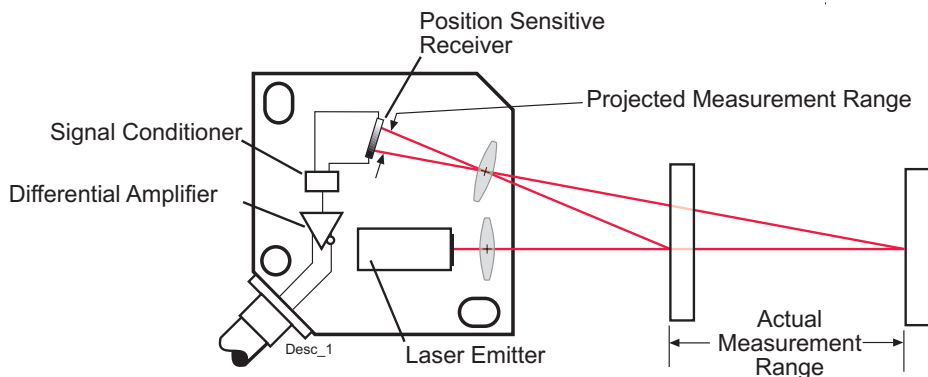
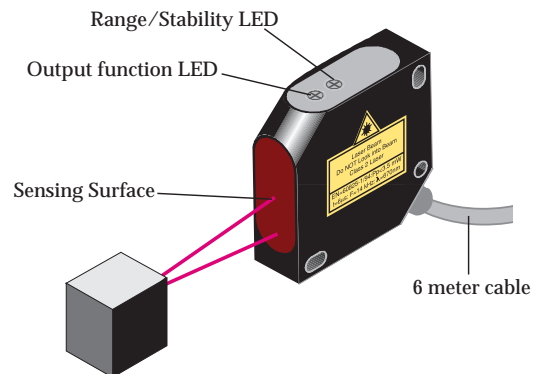


Figure 1
Operating principles of the BOD-26K laser measurement sensor

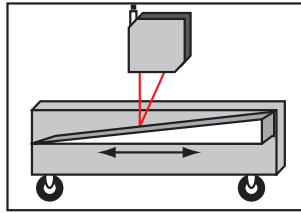
FEATURES

- Non contact distance measurement of virtually any object
- Fast reaction times for high-speed applications
- High accuracy $80\mu\text{m}$ resolution for measuring precise positioning
- Produces linear 0-10 V analog output isolated from the power supply
- Differential output driver produces rock-solid, noise-free output voltage
- Visible red laser emission (670nm) which allows for easy setup
- Highly visible status LEDs for stability and contamination (target out of range) function
- Compact, versatile IP67 housing with 6 meter shielded cable
- Extremely low temperature drift ($18\mu\text{m}/^\circ\text{C}$)

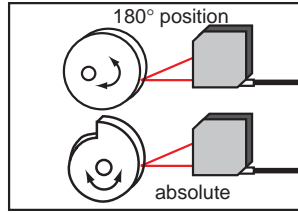


APPLICATIONS

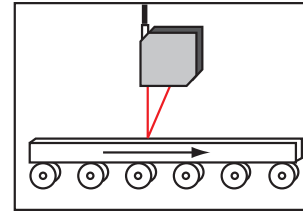
Common applications for the BOD-26K include:



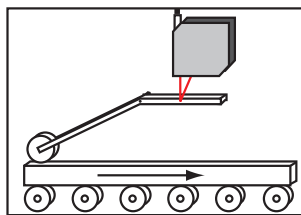
Tracking lateral movement



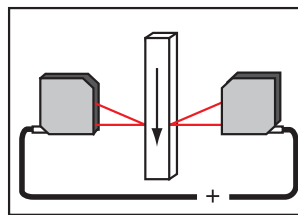
Shaft position



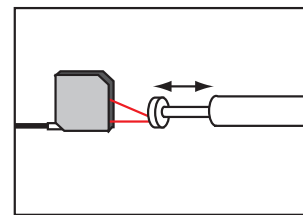
Thickness gauging
(non-contact on fixed surface)



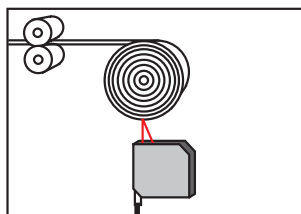
Thickness gauging
(contact follower)



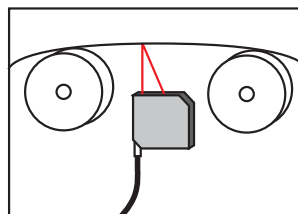
Thickness gauging
(non-contact, no fixed point)



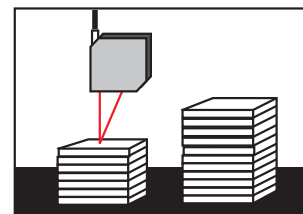
Position measurement



Web winding/unwinding control



Wave measurement



Stack level monitoring

TECHNICAL DATA

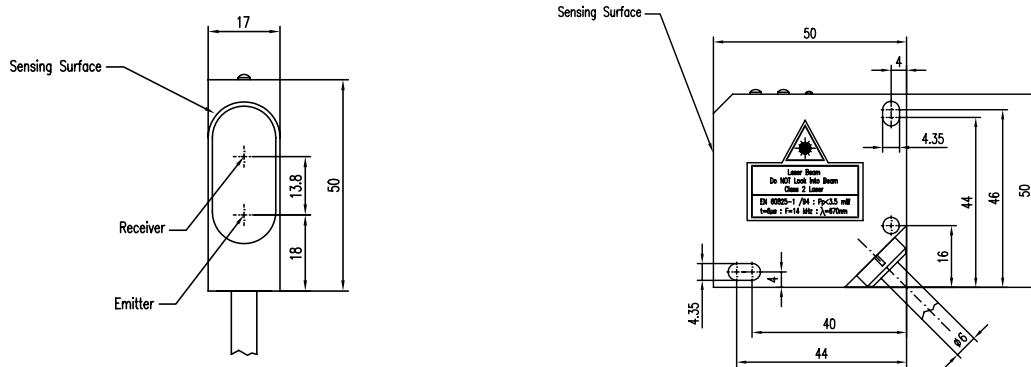
Model Number

BOD-26K-LA01-C-06

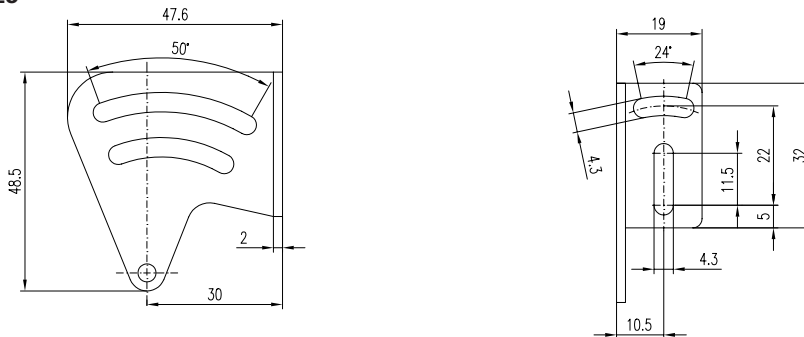
Specifications

Sensing Distance	45-85 mm
Operating voltage	18 – 28 Vdc
Output type	0 to 10 Volt, differential output
Update Time	2ms
Linearity	<1%
Max resolution	80µm
Emission	670nm Red laser light
Electrical Protection	Short circuit and Reverse polarity
Housing material	ABS impact resistant
Sensing surface	PMMA
Environmental rating	IP 67
Operating Temp	-20 to +60°C
Connector	6 meter cable

DIMENSIONAL DRAWINGS



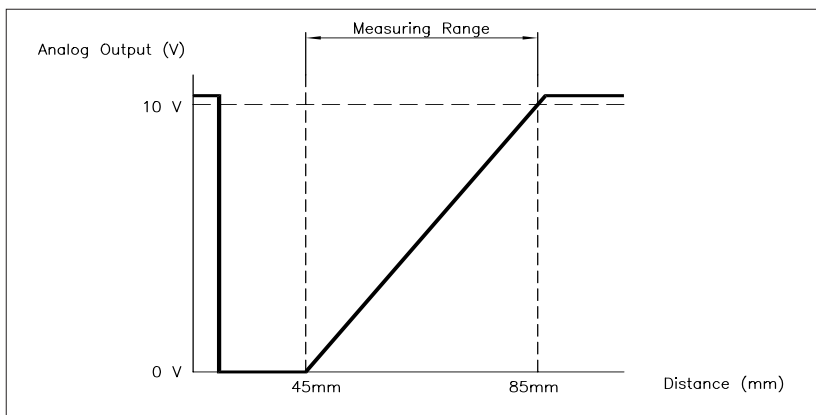
ACCESSORIES



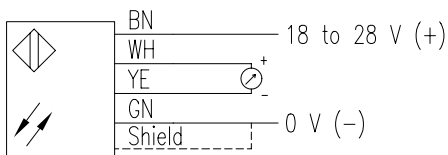
BOS-26-HW-1

Adjustable Mounting Bracket

OUTPUT SIGNAL



CONNECTION



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 Florence, KY 41042
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www.balluff.com

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