

## The optical distance sensor ODS 96B

Precise and unmatched in speed  
even at long distances



This is how distance sensors are built today.

**ODS 96B.**

Technology that you can count on.

In terms of figures alone, the new compact distance sensors of the ODS 96B series greatly outperform all comparable competitive products in terms of speed and precision. The systems measure up to five times faster and up to two times more accurately – and that even at large operating ranges. In addition, a large OLED display with key pad considerably simplifies reading and configuring, and various operating modes – fast, standard, precision – facilitate fast adaptation to your application.



# The most important **advantages** at a glance.

## User friendly

- All sensors are equipped with a display and a graphical user interface directly on the device
- Measurement value display in millimetres in a bright, strong-contrast OLED display
- Adjustment and configuration via a key pad directly on the device
- Operating modes – fast, precision, standard – and measurement-value filter directly adjustable on the sensor

## High performance

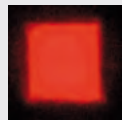
- Measurement range: 60–25,000 mm
- Measure in ms cycle
- Resolution: 0.1–1 mm
- Stable, reliable measurement values even under difficult conditions, such as temperature fluctuations and glossy surfaces

## Versatile

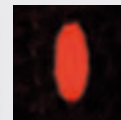
- Extensive range of models available:
  - LED and laser distance sensors
  - Laser distance sensors with small and elongated light spot and for measurements against reflectors
- Interfaces:
  - Analogue output current/voltage
  - Switching outputs adjustable with mm accuracy
  - Serial interface RS 232/485
  - IO-Link ready



## Optical distance sensors with **triangulation principle**.



LED light spot



Laser light spot

### Robust

#### **ODS 96B with LED**

(available as either infrared or red-light device)

Measurement range: 100–1,400 mm  
Light spot dimensions: 15 mm  
Measurement time: 1–5 ms  
Resolution: 0.1 mm

- For measurements on objects with large surface area, e.g. bulk material, band materials, plate materials
- brightVision®, very bright light spot with red-light LED, indicator diodes visible from all sides

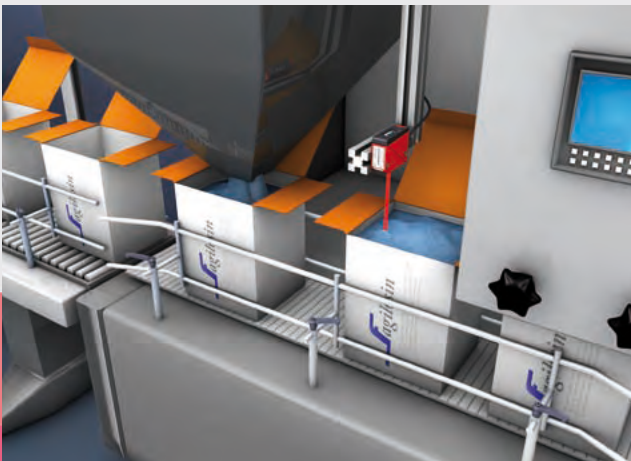
### Universal

#### **ODSL 96B**

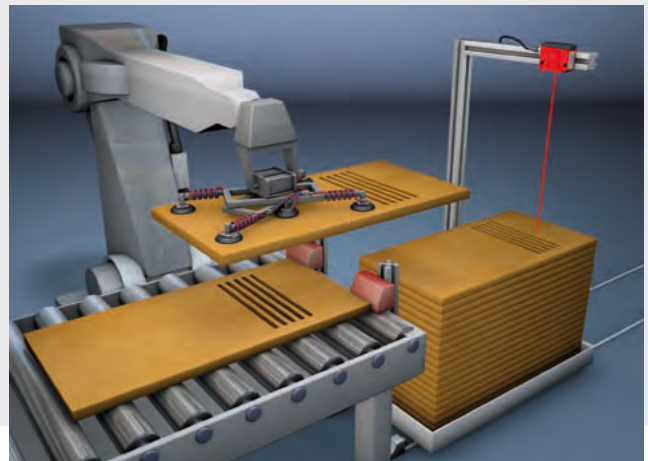
Measurement range: 60–2,000 mm  
Light spot dimensions: 2 x 6 mm  
Measurement time: 1–5 ms  
Resolution: 1 mm

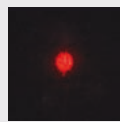
- For measurements in ms cycle at large operating ranges
- Stable, precise measurement values, even with varying temperatures and object variations

### Filling level measurement



### Stack height measurement





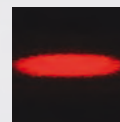
Laser light spot

Ideal for glossy and structured surfaces

### ODSL 96B "S"

Measurement range: 150–2,000 mm  
Light spot dimensions: 1 x 1 mm  
Measurement time: 1–5 ms  
Resolution: 0.1 mm

- Small laser light spot for precise measurements on small objects, objects with coloured structure or on metallic surfaces



Laser light spot

Ideal for measurements on objects with openings

### ODSL 96B "XL"

Measurement range: 150–2,000 mm  
Light spot dimensions: 15 x 4 mm (at a distance of 800 mm)  
Measurement time: 1–5 ms  
Resolution: 0.1 mm

- Elongated light spot for precise measurements on porous objects and objects with openings (e.g. corrugated cardboard) as well as on objects that are not aligned precisely

Robot arm positioning



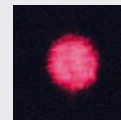
Lateral stack positioning



## Optical distance sensors with **pulse propagation time technique.**



Laser light spot



Laser light spot

For measurements on objects up to 10 m

### **ODSL 96B**

Measurement range: 10 m (90 % diffuse reflection)  
 Measurement range on dark objects: 300–5,000 mm (6 % diffuse reflection)  
 Measurement time adjustable: 5–30 ms  
 Resolution: 3 mm

- Large operating range even with dark objects
- Operating modes for fast or precise measurements

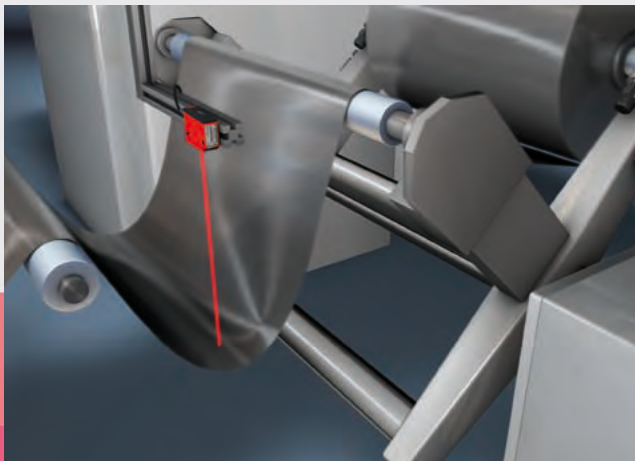
For measurements on reflectors, up to 25 m

### **ODKL 96B**

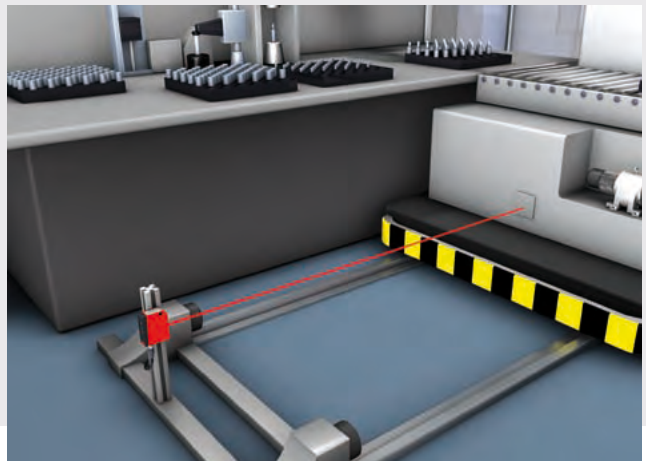
Measurement range: up to 25 m (against reflector)  
 Measurement time adjustable: 5–30 ms  
 Resolution: 3 mm

- Fast and simple alignment with highly visible laser light spot
- Large operating range in compact construction

Sag control of band materials



Positioning of side-tracking skates



## Application examples

- Thickness and width measurement of e.g. wood, profiles
- Stack/object height measurement
- Contour measurement
- Diameter determination, e.g. of roll materials
- Collision prevention at telfer lines
- Positioning of vehicles
- Filling level measurement
- Sag control of band materials



## **Optoelectronic Sensors**

Cubic Series  
Cylindrical Sensors, Mini Sensors, Fibre Optic Amplifiers  
Measuring Sensors  
Special Sensors  
Light Curtains  
Forked Sensors  
Double Sheet Monitoring, Splice Detection  
Accessories

## **Identification Systems**

### **Data Transmission Systems**

### **Distance Measurement**

Barcode Readers  
RF-IDent-Systems  
Modular Interfacing Units  
Industrial Image Processing Systems  
Optical Data Transmission Systems  
Optical Distance Measurement/Positioning  
Hand-Held Readers

## **Safety Sensors**

### **Safety Systems**

### **Safety Services**

Safety Laser Scanners  
Safety Light Curtains  
Transceivers and Multiple Light Beam Safety Devices  
Single Light Beam Safety Devices  
AS-i-Safety Product Range  
Safety Sensor Technology for PROFIBUS DP  
Safety Switches and Safety Locking Devices  
Safety Relays and Safety Interfaces  
Sensor Accessories and Signal Devices  
Safety Engineering Software  
Machine Safety Services

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