

 **Leuze electronic**

the **sensor** people

Series 46B
Photoelectric Sensors
and Light Scanners



PRODUCT INFORMATION

The new **sensor generation** Series 46B.

Reliable, high-performance, cost-effective

Series 46B sets new standards in optical sensors. With high performance reserves and large operating ranges, these sensors are ideal for use in the wood-processing industry and in machines for special applications. The highly visible, bright light spot and the reliable detection of stretch-wrapped objects reduce life-cycle costs in materials handling. Thanks to the IP 67 and IP 69K protection classes as well as the ECOLAB certification, high services lives are achieved in spite of the intense cleaning cycles encountered in packaging technology.



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

Fast commissioning:

With **brightVision®**:

Fast and easy alignment through the use of a very bright light spot; bright, 360° visible indicator diodes facilitate full control.



With **Ultra-Lock™**:

Fast commissioning and secure contact with a snap lock.



Protection against interference:

- Insensitive against soiling due to very high performance reserve
- Very robust housing
- Low ambient light sensitivity through A²LS
- High resistance to environmental influences: IP 67, IP 69K, Ecolab
- Large operating temperature range: -30°C – +60°C
- Increased availability through warning output



Maximum performance:

- Large operating ranges
- Reliable detection of dark, stretch-wrapped and glossy objects as well as objects with coloured structure
- Reliable differentiation between object and background

Retro-reflective photoelectric sensors

Reliable function with small, **misadjusted** reflectors and heavy **soiling**.



PRK 46B

Light source: red-light LED
Operating range limit: 0.05 - 18 m
Switching frequency: 500 Hz

- Maximum performance reserve
- Reliable object detection with small, misadjusted reflectors, large operating range or heavy soiling

Gap inspection



Reliable detection of **stretch-wrapped** pallets.



PRK 46B.2

Light source: red-light LED
Operating range limit: 0.1 - 10 m
Switching frequency: 500 Hz

- Optimised for use on roller conveyors
- Reliable function even with stretch-wrapped pallets

Detection of stretch-wrapped objects



Diffuse reflection light scanners with background suppression

For reliable detection of **dark** and **glossy** objects.

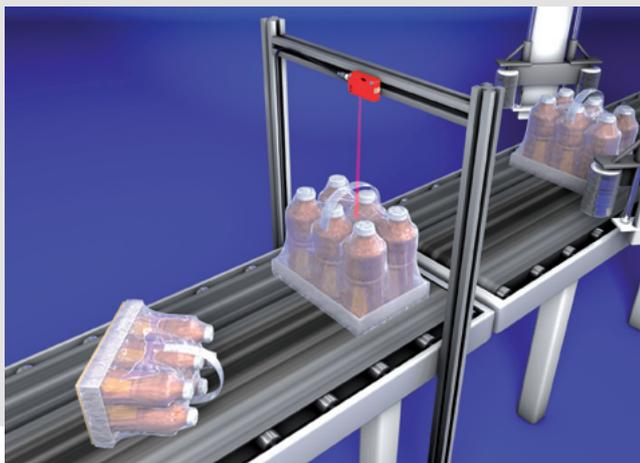


HRT 46B

Light source: infrared LED
Scanning range limit: 0 mm - 2500 mm
Adjustment range: 120 mm - 2500 mm

- Very high performance reserve
- Very small black/white error
- Optimised for glossy, dark objects and large operating ranges

Detection of glossy objects



For very simple alignment with **extra bright** light spot.



HRTR 46B

Light source: red-light LED
Scanning range limit: 5 mm - 1800 mm
Adjustment range: 120 mm - 1800 mm

- High performance reserve
- Very visible, bright light spot

Vertical positioning



Diffuse reflection light scanner with background suppression

For very precise **positioning** and **detection** of small parts.



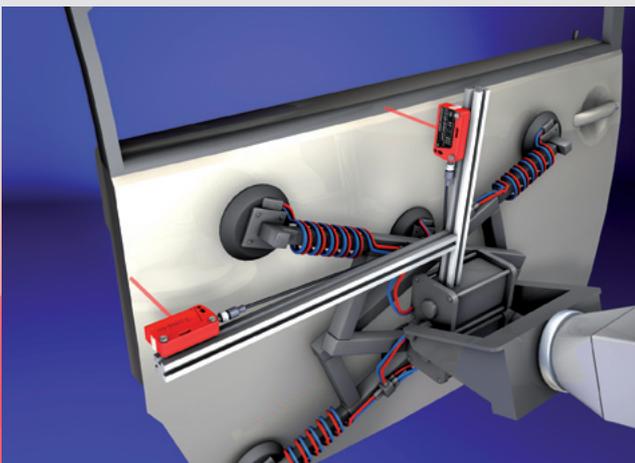
HRTL 46B



| | |
|-----------------------|------------------|
| Light source: | red-light laser |
| Scanning range limit: | 50 mm - 1200 mm |
| Adjustment range: | 120 mm - 1200 mm |
| Switching frequency: | 1000 Hz |

- Light spot: 3 x 5 mm² at distance of 1 m
- Precise positioning and detection of small parts

Positioning of a robotic arm



For reliable detection of objects with **coloured structure**.



HRTR 46B small beam

| | |
|-----------------------|----------------------------|
| Light source: | red-light LED |
| Scanning range limit: | 10 mm - 500 mm |
| Adjustment range: | 120 mm - 700 mm |
| Small light spot: | focussed at approx. 200 mm |

- Reliable detection of objects with coloured structure located in front of a background
- Optimised for applications in the wood and packaging industries
- Typical actuation distances: 100 - 300 mm

Detection of wood pallets



For objects approaching from the **side** with fixed setting.



HRT 46B Fix

Light source: infrared LED
Scanning range: 600 mm
Adjustment range: no adjustment

- No accidental misadjustments
- Cost-optimised product
- Reliable background suppression from > 700 mm

Object detection



For detection **between** the rollers of a roller conveyor.



HRT 46B Fix, narrow beam

Light source: infrared LED
Scanning range: 600 mm
Adjustment range: no adjustment

- Detection through a gap ≥ 6 mm
- Reliable detection of wood or plastic pallets independent of their height
- Simple alignment
- Large optics ensure low sensitivity to soiling
- Detection of overhanging objects

Detection of objects between rollers



Optical Electronic Sensors

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

Identification Systems

Data Transmission Systems

Distance Measurement

Barcode Readers
RF IDent Systems
Modular Connector 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 Multi-Beam Safety Photoelectric Sensors
Single-Beam Safety Photoelectric Sensors
AS-i-Safety Product Line
Safety Sensors for the PROFIBUS DP
Safety Switches and Locks
Safety Relays and Interfaces
Sensor Accessories and Signal Devices
Machine Safety Services

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