

 **Leuze electronic**

**HVS**  
PRECONISATEUR DE SOLUTIONS DEPUIS 1985

2 rue René Laennec 51500 Taissy France  
Fax: 03 26 85 19 08, Tel : 03 26 82 49 29

E-mail: [hvssystem@hvssystem.com](mailto:hvssystem@hvssystem.com)  
Site web : [www.hvssystem.com](http://www.hvssystem.com)

the **sensor** people

**Series 25B**  
Photoelectric Sensors  
and Light Scanners



## The new **sensor generation** Series 25B.

### Compact, reliable, cost-effective

Series 25B offers a high level of flexibility. All operating principles – from the throughbeam photoelectric sensor to the scanner with background suppression – are optimised for the different applications.

Protection classes IP 67 and IP 66 as well as active ambient light suppression enable use in a wide range of industrial sectors.

A number of different options, such as activation input or warning output, facilitate a high level of process reliability and, thus, system availability.



## Advantages and benefits at a glance.

### Time-saving 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 an additional status display on the front side of the sensor (scanner with background suppression)



### Use under a wide range of environmental conditions:

- Insensitive against soiling due to very high performance reserve
- Robust, compact housing
- Low ambient light sensitivity through A<sup>2</sup>LS
- High resistance to environmental influences: IP 67, IP 66
- Large operating temperature range: -40°C – +60°C
- Increased availability through warning output and activation input



### Maximum performance:

- Large operating ranges
- High sensitivity
- Maximum reproducibility
- Scanners with mechanical or electronic background suppression
- Reliable, precise object detection
- Category 2 sensors

# Throughbeam photoelectric sensors

Small sensor –  
large operating range.



**LSR 25B**

Light source: red-light LED  
Scanning range limit: 0 – 24 m  
Switching frequency: 500 Hz  
Response time: < 1 ms

- Standard sensor with very high performance reserve. Suitable for use in rough, industrial environment.
- Various options for increasing the process reliability (warning, activation, testing).

Category 2 protective  
photoelectric sensor with  
large operating range.

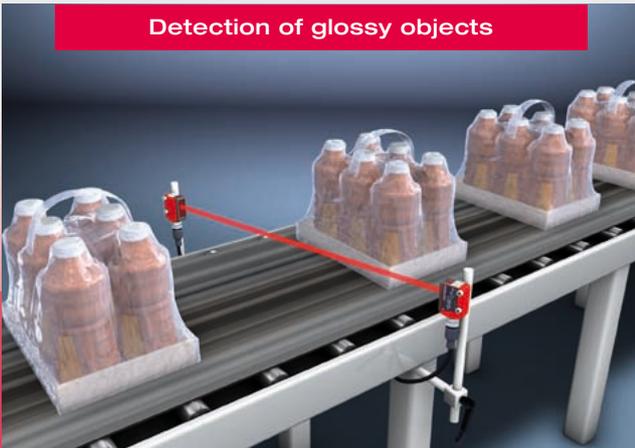


**SLSR 25B**

Light source: red-light LED  
Operating range limit: 0.5 – 22 m  
Switching frequency: 200 Hz  
Response time: < 2.5 ms

- Time-saving alignment through optimised light beam propagation (opening angle)
- Contactless protective device, category 2, in combination with safety-relevant control system (testing acc. to EN 61496-1)

**Detection of glossy objects**



**Foot-space safeguarding**



## Retro-reflective photoelectric sensors, **polarised**

Large **operating range**,  
maximum **performance**  
**reserve**.

Maximum reliability during  
the detection of **foil-packed**  
objects, **laminated** surfaces.



### **PRK 25B**

Light source: red-light LED  
Operating range limit: 0.05 – 10 m  
Switching frequency: 500 Hz  
Response time: < 1 ms

- Standard retro-reflective photoelectric sensors offer high system availability under extreme environmental conditions
- Additional functions, e.g. warning, activation, for increasing the process reliability



### **PRK 25B.3**

Light source: red-light LED  
Operating range limit: 0.1 – 8 m  
Switching frequency: 500 Hz  
Response time: < 1 ms

- Optimised for use in the areas of material flow/intralogistics, packaging technology
- Various options for adaptation to the respective applications



## Retro-reflective photoelectric sensors, **polarised**

Laser retro-reflective photoelectric sensors with **large operating range**.



**PRKL 25B** 

Light source: red-light laser (laser class 2)  
Operating range limit: 0.1 – 15 m  
Switching frequency: 2000 Hz  
Response time: < 250  $\mu$ s

- Reliable detection of small parts/objects
- Optimum light beam propagation for positioning and counting applications

Zero distance, **transparent** media single lens.



**PRK 25.41 / PRK 25.2**

Light source: red-light LED  
Operating range limit: 0 – 2 / 5 m  
Switching frequency: 500 Hz  
Response time: < 1 ms

- Designed for use at short range
- Reliable, economical sensor for the detection of e.g. clear glass, PET bottles



**Gap inspection**



**Bottle detection**

## Diffuse reflection light scanner **with background suppression**

Reliable detection of **glossy**,  
**dark**, **dusty** objects.

Visible red light for **precise**  
alignment.



**HRT 25B**

Light source: infrared LED  
Scanning range limit: 0 – 1000 mm  
Adjustment range: 50 – 1000 mm  
Switching frequency: 250 Hz  
Response time: < 2 ms

- Universally usable light scanner
- Reliable with materials/surfaces having low reflectance
- Mechanical adjustment of scanning range, background suppression



**HRTR 25B**

Light source: red-light LED  
Scanning range limit: 0 – 1000 mm  
Adjustment range: 50 – 1000 mm  
Switching frequency: 250 Hz  
Response time: < 2 ms

- Optimised for the reliable detection of structured surfaces
- Reliable object detection from various angles
- Mechanical adjustment of scanning range, background suppression



## Diffuse reflection light scanner **with background suppression**

Reliable detection of **objects** with glossy and structured surfaces.

The specialist for **positioning** tasks.



### HRTR 25B-S

|                       |               |
|-----------------------|---------------|
| Light source:         | red-light LED |
| Scanning range limit: | 0 – 600 mm    |
| Adjustment range:     | 50 – 600 mm   |
| Switching frequency:  | 1000 Hz       |
| Response time:        | < 0.5 ms      |

- Focused light spot for the reliable detection of objects with glossy and inconsistently structured surfaces
- High switching frequency and short response time for detection of fast events



### HRTR 25B-XL

|                       |               |
|-----------------------|---------------|
| Light source:         | red-light LED |
| Scanning range limit: | 0 – 600 mm    |
| Adjustment range:     | 50 – 600 mm   |
| Switching frequency:  | 250 Hz        |
| Response time:        | < 2 ms        |

- Large light spot for exact, reliable edge detection – positioning on glossy, broken (perforated) metallic surfaces (e.g. slide bolts)
- Optimized light spot for detecting containers which are not completely closed (perforated boxes)

#### Detection of glossy objects



#### Positioning



## Diffuse reflection light scanner **with fading**

**Economical** scanner for standard applications.



### **RTFR 25B**

|                       |               |
|-----------------------|---------------|
| Light source:         | red-light LED |
| Scanning range limit: | 5 – 650 mm    |
| Switching frequency:  | 500 Hz        |
| Response time:        | < 1 ms        |

- Fading – no object detection in background
- Short response behaviour for detecting fast events
- Electrical scanning range adjustment via potentiometer



## **Optoelectronic Sensors**

Cubic Series  
Cylindrical Sensors, Mini Sensors, Fiber Optic Amplifiers  
Measuring Sensors  
Special Sensors  
Light Curtains  
Forked Sensors  
Double Sheet Monitoring, Splice Detection  
Inductive Switches  
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  
Mobile Code 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, Safety Locking Devices and Safety Command Devices  
Safety Relays  
Sensor Accessories and Signal Devices  
Safety Engineering Software  
Machine Safety Services

Leuze electronic GmbH + Co. KG

In der Braike 1

73277 Owen/Germany

Phone +49 (0) 70 21 573-0

Telefax +49 (0) 70 21 573-199

E-mail: [info@leuze.de](mailto:info@leuze.de)

[www.leuze.com](http://www.leuze.com)