



SMART
SENSOR
BUSINESS

25 SERIES

Photoelectric sensors
and diffuse sensors

powerreserve.



THE NEW SENSOR GENERATION SETS STANDARDS

The new 25 series offers a high level of functionality and flexibility for a wide range of industry sectors.

*power*reserve.

COMPACT, RELIABLE FUNCTION-OPTIMIZED

With their degrees of protection IP 67 and IP 69K, the ECOLAB certification as well as the active ambient light suppression, the extremely compact sensors of the 25 series offer a very high level of flexibility and reliability for various areas of industry.

Numerous additional functions, such as the activation input and the warning output, enable the maximum of cost-efficient process reliability and system availability for your applications.





ONE SERIES – ALL OPERATING PRINCIPLES

From the throughbeam photoelectric sensor to the sensor with background suppression, the 25 series offers an extensive sensor product line that has been optimized for a wide range of applications, especially in intralogistics and packaging technology.

powerreserve.

- Not sensitive to soiling thanks to very high function reserve
- High immunity against external light interference through A²LS
- High environmental resistance: IP 67, IP 69K
- Chemical resistance tested in accordance with ECOLAB
- Large operating temperature range: -40 °C – +60 °C
- Increased availability through warning output and activation input

thinkmodular.

- Large operating ranges
- Adjustable sensitivity for high reliability
- Sensors with mechanical or electronic background suppression
- Reliable, exact object detection for positioning
- Diffuse sensors with special light spots

easyhandling.

- Time-saving commissioning with **brightvision**®: Fast and simple alignment through very bright light spot
- Bright indicator diodes with all-round visibility enable complete monitoring
- Additional status display on the front side of the sensor
- Compact, robust housing with metal sleeves and M4-thread

brightvision®: Fast and simple alignment through very bright light spot



Bright indicator diodes with all-round visibility



RETRO-REFLECTIVE PHOTOELECTRIC SENS



55 x 35 mm @ 2 m

Large operating range,
maximum function reserve
PRK 25C

	PRK 25C
Light source	Red light LED
Operating range limit	0.05 – 12 m
Switching frequency	1,500 Hz
Response time	< 0.3 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



1 x 5 mm @ collimated

Fine and precise –
the laser
PRK 25C.L

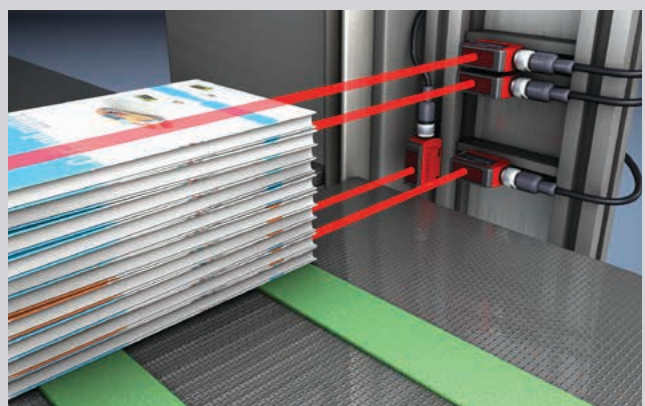
	PRK 25C.L
Light source	Red light laser
Operating range limit	0.1 – 15 m
Switching frequency	2,000 Hz
Response time	< 0.25 ms

- Powerful laser retro-reflective photoelectric sensor for small parts or gap monitoring
- Optimum beam path for counting and positioning applications
- In laser class 1 and 2

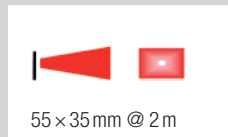
Container detection



Height verification



ORS



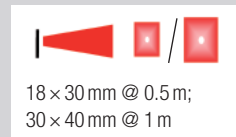
Maximum reliability with stretch-wrapped objects

PRK 25C.D

	PRK 25C.D
Light source	Red light LED
Operating range limit	0.1 – 10 m
Switching frequency	1,500 Hz
Response time	< 0.3 ms

- Various options for adapting to the respective application by means of potentiometer
- Intelligent retro-reflective photoelectric sensor for the detection of reflective and shrink-wrapped objects

Detection of stretch-wrapped packages



Detection of highly transparent objects

PRK 25C.A

	PRK 25C.A
Light source	Red light LED
Operating range limit	0.1 – 6 m
Switching frequency	1,500 Hz
Response time	< 0.3 ms

- As single lens model for highly accurate positioning
- Reliable sensor for the detection of clear glass and PET bottles as well as highly transparent films
- Various options for adapting to the respective application by means of potentiometer

Detection of PET and glass bottles



DIFFUSE REFLECTION SENSORS WITH BACKGROUND SUPPRE



HT 25C

Ø 10 mm @ 150 mm;
15 x 15 mm @ 400 mm

HT 25C.S

Ø 5 mm @ 150 mm;
20 x 15 mm @ 400 mm



1 x 5 mm @ collimated

Reliable detection of glossy or dark objects – infrared or red light

HT 25C / HT 25CI / HT 25C.S

	HT 25C	HT 25CI	HT 25C.S
Light source	Red light LED	Infrared LED	Red light LED
Operating range limit	1,000 mm		0–600 mm
Adjustment range	50–1,000 mm		50–600 mm
Switching frequency	1,000 Hz		1,500 Hz
Response time	< 0.5 ms		< 0.3 ms

- Universally usable diffuse sensor
- Reliable detection of objects with glossy and inconsistently structured surfaces
- Mechanical adjustment of scanning range, background suppression
- Reliable switching even in dusty environments

Wood plate detection



For very accurate positioning or small parts

HT 25C.L

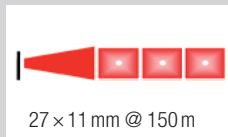
	HT 25C.L
Light source	Red light laser
Operating range limit	0–600 mm
Adjustment range	50–600 mm
Switching frequency	2,000 Hz
Response time	< 0.2 ms

- In laser class 1 and 2
- Mechanical adjustment of scanning range, background suppression
- Very good black/white behavior

Compartment fine positioning in high racks



SSION



Reliable detection of objects with glossy, inconsistently structured surfaces or openings
HRT 25B.XL

	HRT 25B.XL
Light source	Red light LED
Operating range limit	600 mm
Adjustment range	600 mm
Switching frequency	250 Hz
Response time	< 2 ms

- High switching frequency and short response time for detection of fast events
- Long light spot for structured surfaces
- Reliable detection of objects with openings such as meshed containers

Positioning in container warehouse



Small sensor – large operating range
HRT 25B-LR

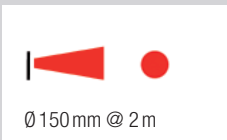
	HRT 25B-LR
Light source	Infrared LED
Operating range limit	0.1 – 2.5 m
Switching frequency	30 – 50 Hz
Response time	< 33 ms

- Especially small black/white error with high reproducibility
- TOF sensor for the detection of objects > 50 x 50 mm with 2 switching points
- 2 teachable switching points with indicator LEDs in optical window

Compartment occupation check



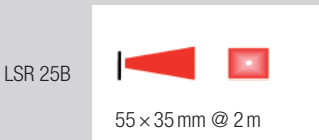
THROUGHBEAM PHOTOELECTRIC SENSORS



Protective sensor
in category 2
SLSR 25B

	SLSR 25B
Light source	Red light LED
Operating range limit	0–22 m
Switching frequency	100 Hz
Response time	< 5 ms

- Contactless protective device in accordance with category 2 in combination with testing in accordance with EN 61496-1 and MSI-T safety relay



Photoelectric sensor
with large operating range
LSR 25B / LSR 25B.2

	LSR 25B	LSR 25B.2
Light source	Red light LED	Infrared LED
Operating range limit	0–24 m	0–200 m
Switching frequency	500 Hz	100 Hz
Response time	< 1 ms	< 5 ms

- Time-saving alignment through optimized light beam propagation (opening angle)
- High-intensity throughbeam photoelectric sensor (adjustable on both sides, LSR.2) for large operating range and demanding environments
- Also suitable for radiation through films

Foot-space safeguarding



Content check with radiation through films

