

the **sensor** people

HRTL 96B

Laser light scanner featuring background suppression for object detection and accurate positioning



HRTL 96B, optimised for positioning tasks and reliable object detection.

Dynamic, precise, robust and reliable.

Featuring large detection ranges and background suppression, our 96B series universal laser light scanners are optimally designed for positioning tasks and reliable object detection, for example in the areas of compartment occupation check and shelf positioning. The scanner's switching behaviour is independent from the drive-in direction, and the integrated propagation time measurement of the radiated light enables this device to be used even under extreme environmental conditions such as gloss, light or obstacle contours.

The light scanner impresses with very easy operation featuring visible red light, teachable switching points and a sophisticated diagnostic function. In addition, a time lock prevents inadvertent changes to the switching points, and thus guarantees the maximum possible detection reliability.



Areas of application

- Position detection
- Projection monitoring
- Loading control
- Fill-level measurement
- Object detection
- Control of autonomous transport systems (e. g. DTS, telpher line)
- Collision prevention



HRTL 96B.

Universally applicable laser light scanner.



Very simple operation.

- 2 (optionally 3) teachable switching points
- Time lock to prevent inadvertent switching point changes

Universally applicable due to:

- Large scanning range 100–5,000 mm (6% diffuse reflection)
- Fast response behaviour < 5 ms

Propagation time measurement of the radiated light enables secure object detection and accurate positioning (e. g. shelf positioning).

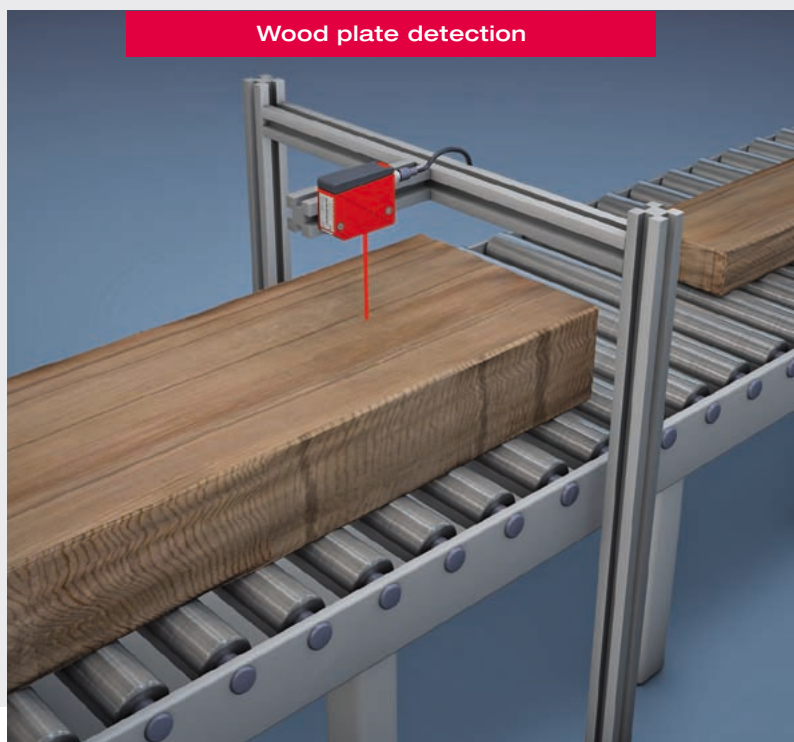
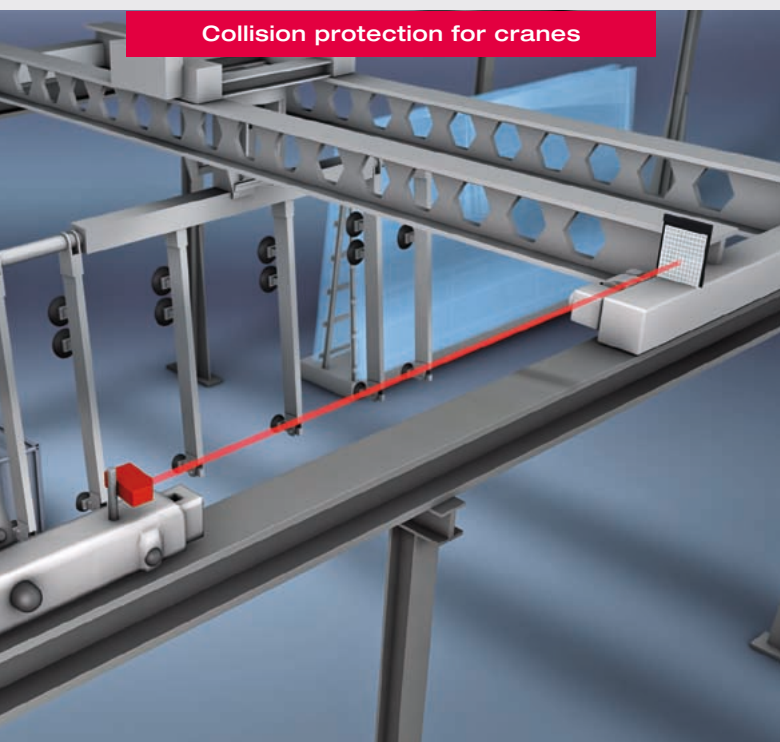
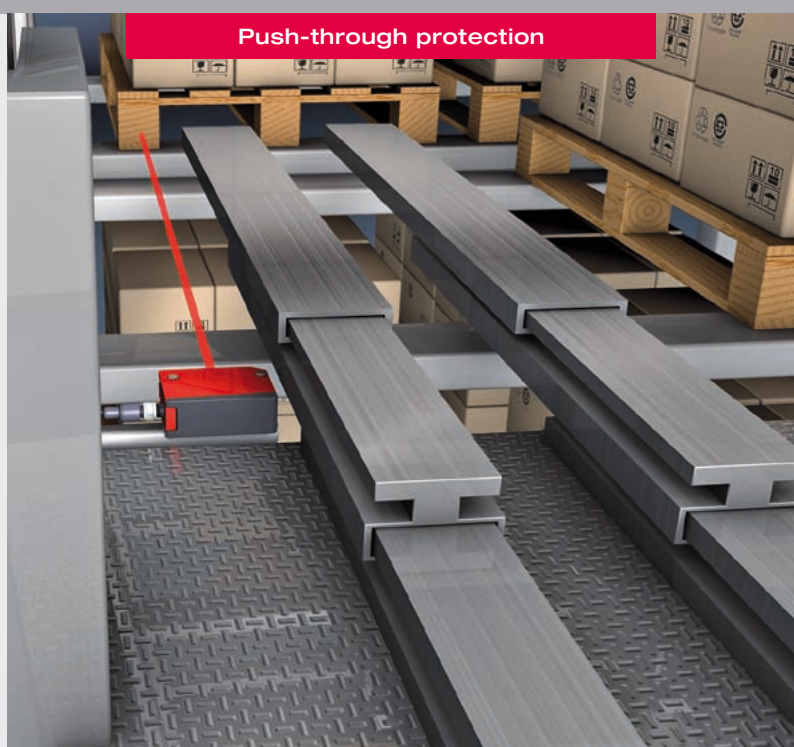
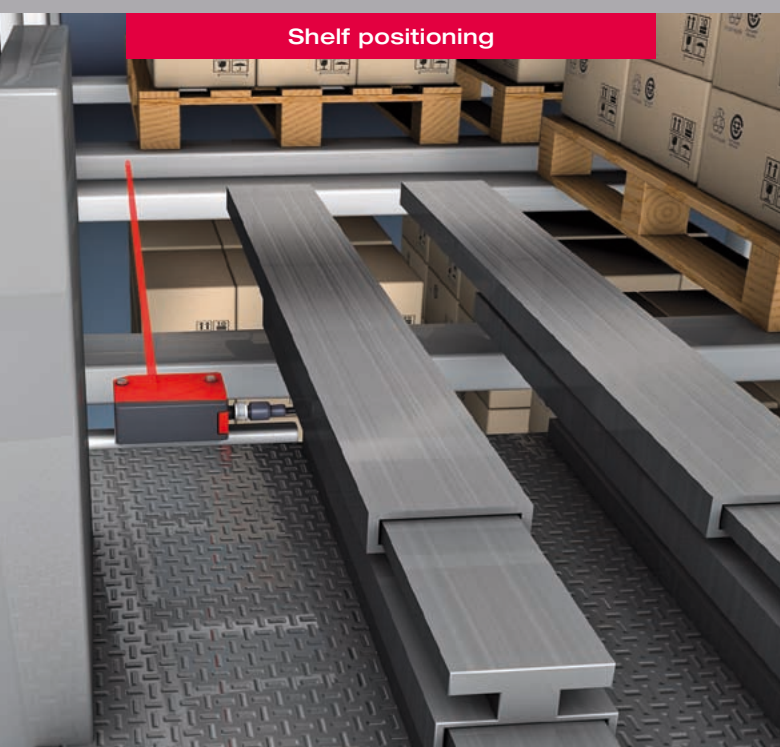
- Resolution < 5 mm
- Repeatability < 1 mm

Proven housing design, robust metal construction.

Diagnostic function enables continuous monitoring and correction of sensor properties.

Interfaces: analogue and serial.

Areas of application for HRTL 96B laser light scanner with **background suppression.**



Very easy, time-saving operation.



Scanning range adjustment Q1/Q2

Key pad

Indicator diodes for Q1/Q2 switching outputs

- Time lock prevents inadvertent changes to switching points
- Adaptation to extreme applications by means of configuration
- Diagnostic function enables among other things the display of the sensor and teach parameters as well as the performance reserve

Technical data

Technical data	HRTL 96B – scanner with background suppression
Function characteristics	Scanner with background suppression
Dimens. excl. plug, W x H x D	30 x 90 x 70 mm
Voltage supply	10 ... 30VDC
Switching frequency	100Hz
Response time	< 5 ms
Outputs	2x push-pull
Connection type	M12, 5-pin
Protection class	IP 69K, ECOLAB
Scanning range	6,000 mm/25,000 mm (using reflective tape)
Switching points	2, independent from each other adjustable switching points
Principle of physics	Propagation time measurement of the radiated light
Operation	Teach-in
Configuration	Window function, adaptation of characteristic curves (analogue output), hysteresis, factory-set standard setting
Ambient temperature	-30 °C ... +50 °C
Reflectivity	4 ... 90 %
Light spot size	8 mm at 5 m distance 5 mm at 1 m distance
Deactivation	Deliberate switch-on/switch-off of the laser transmitter
Interfaces (optional)	Analogue current/voltage Serial RS 232, RS 485
Object detection	
Resolution	< 5 mm
Standard deviation	±10 mm at ±3 sigma
Edge detection/shelf positioning	
Repeatability	< 1 mm



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

Leuze electronic GmbH + Co. KG

In der Braike 1

73277 Owen, Germany

Phone +49(0)7021/573-0

Fax +49(0)7021/573-199

info@leuze.de

www.leuze.com