

the **sensor** people

Light section sensors LPS/LES/LRS

The better and cheaper
solution for many new areas
of application



Reliable object detection

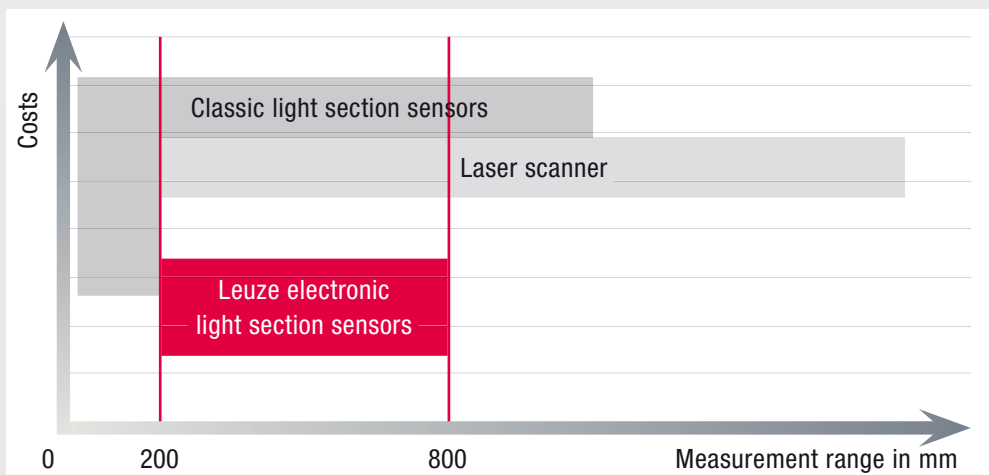
no longer needs to be a matter of price.

Our new light section sensors provide a cost-effective alternative in many areas of application.

Our new light section sensors can be applied wherever large objects need to be detected reliably, quickly and accurately across longer distances but without extremely high requirements when it comes to precision.

The large measurement range of up to 800 mm opens up completely new application fields using proven light section sensor technology. The new light section sensors take over where, for lack of alternatives, oversized and thereby cumbersome sensor solutions have been used up to now.

Unrivaled: The application scope of the new light section sensors



The secret of success:
The **large measurement range**.



Low price

Unrivalled favorable conditions

Compact

Smallest overall size on the market

Precise

Dark and light objects are detected reliably

Large measurement distance

Measurement range:
200 – 800 mm

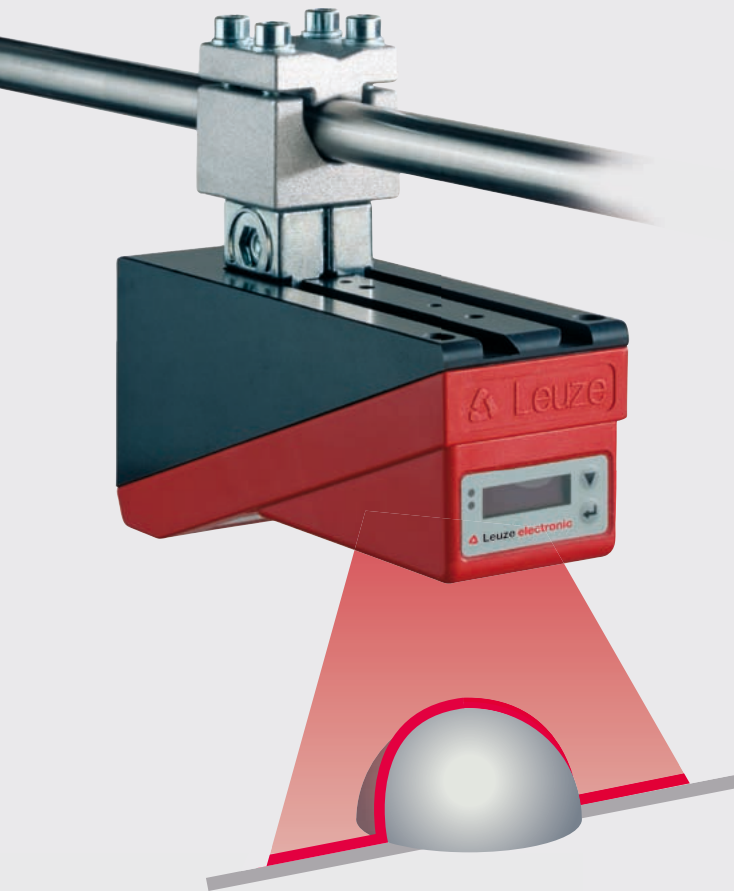
Fast detection

Measurement rate of 100 Hz and a resolution of 1 mm

At home in all dimensions.

Line Profile Sensor LPS

measures the profile of objects.



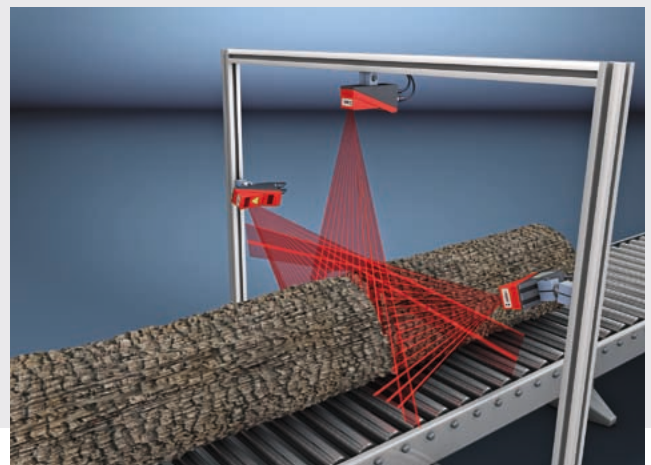
The LPS sensor is used wherever sizes and positions of stationary or moving objects are to be measured. An additional encoder connection permits the creation of 3D data when scanning moving objects. This opens up a large range of application possibilities in position, contour and volume measurement.

Function data

- Laser measurement technology using the light section method
- Laser line 600 mm at a distance of 800 mm
- Measurement time: 10 ms
- Measurement range: 200–800 mm
- Compact size: 160 x 74 x 56 mm
- Interface: Ethernet
- Optional: Encoder

Typical areas of application

- Case picking
- Gripper control
- Measurement of free formed surfaces
- 3D Measurement of moving objects



This wide, this tall.
Line Edge Sensor LES shows
object dimensions.



The LES sensors determine the position of objects via their edges. By detecting height differences the sensor calculates and delivers accurate object positions.

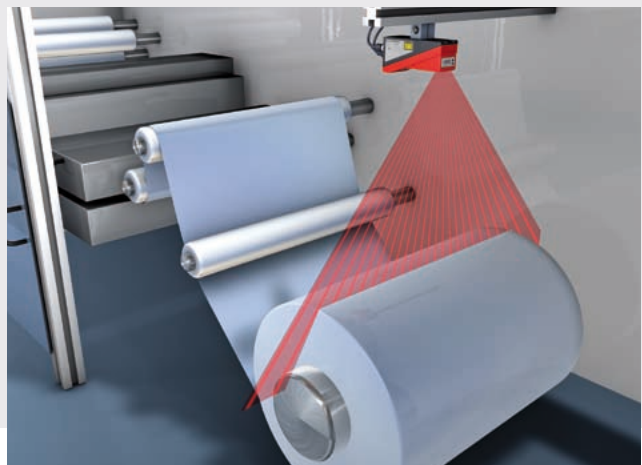
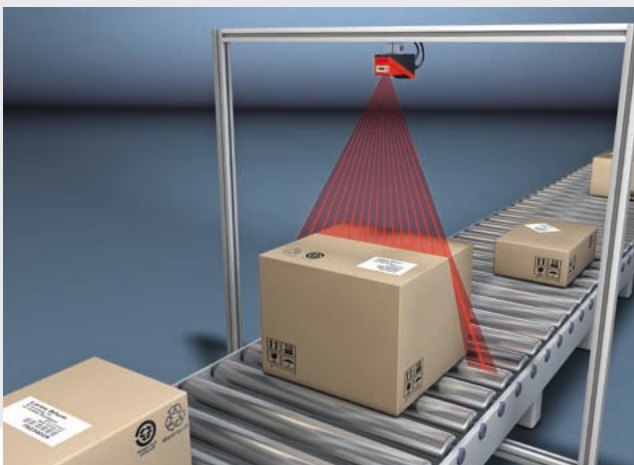
That way heights and widths or positions are reliably provided as data for further processing. At the same time one or more edge positions can be output via the individual configuration.

Function data

- Laser measurement technology using the light section method
- Measurement time: 10 ms
- Measurement range: 200–800 mm
- Data calculation and processing directly inside the sensor
- Compact size: 160 x 74 x 56 mm
- Interface: Ethernet
Optional: analog, serial, bus, encoder

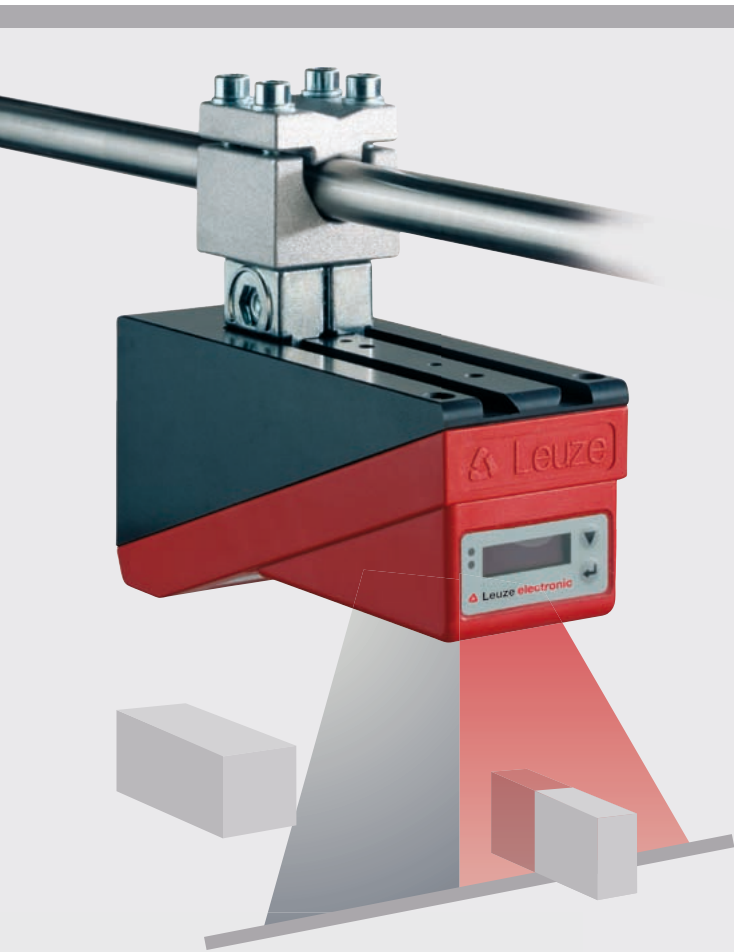
Typical areas of application

- Width and height measurement of timber or cartons
- Determining width and diameter of roll goods
- Edge or stack height measurement of stackable material (e.g. chipboards)



Present or not present.

Line Range Sensor LRS checks
the **presence of objects**.



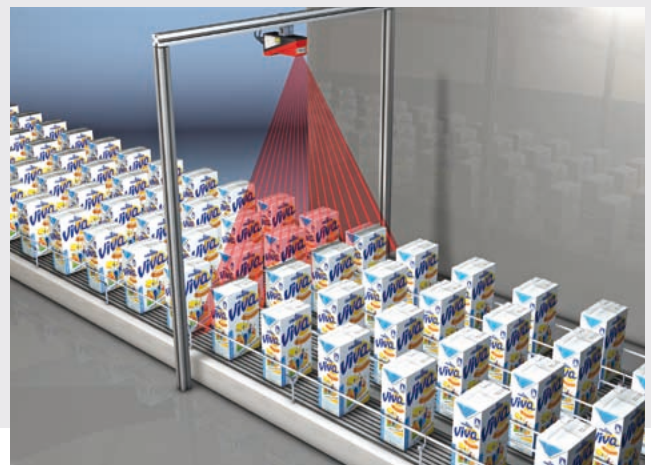
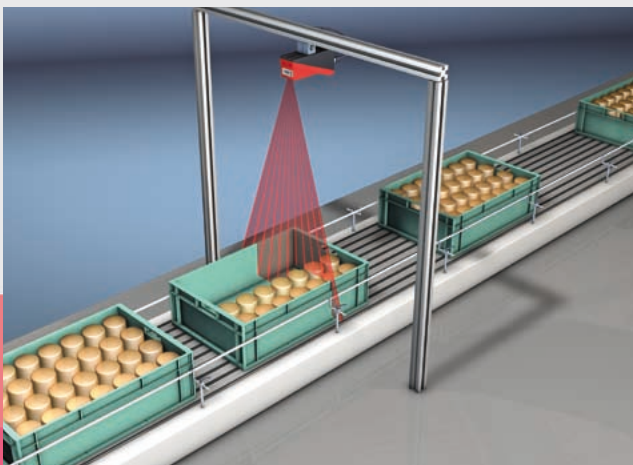
Line Range Sensors are designed to perform proximity object detection along the laser line. Similar to a light barrier or a laser scanner, the sensor detects the presence of objects through scanning. With individual configuration, one sensor can be used to detect single or multiple objects.

Function data

- Laser scanning using the light section method
- Measurement time: 10 ms
- Scanning area: 200–800 mm
- Data calculation and processing directly inside the sensor
- Compact size: 160x74x56 mm
- Interface: Ethernet, I/O
- Optional: serial, bus, encoder

Typical areas of application

- Zero check of cases
- Single or multiple track presence/absence detection on transport systems
- Check whether object or lid are present



Specifications and application examples.

Application parameters	LPS	LES	LRS
Line length	600 mm	600 mm	600 mm
Resolution	1–3 mm	2–5 mm	2–10 mm
Measurement range	200–800 mm	200–800 mm	200–800 mm
Interface	Ethernet	Ethernet	Ethernet, I/O
Optional	Encoder	Analog, serial bus, encoder	Serial, bus, encoder
Application	Object measurement	Edge/width measurement	Object detection
Dimension	160 x 74 x 56 mm	160 x 74 x 56 mm	160 x 74 x 56 mm
Trigger/activation	Yes	Yes	Yes
Cascading	Yes, up to 9 sensors	Yes, up to 9 sensors	Yes, up to 9 sensors



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, Safety Command Devices
Safety Relays
Sensor Accessories and Signal Devices
Safety Engineering Software
Machine Safety Services

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