

the **sensor** people

## Light section sensors LPS/LES/LRS

The better and cheaper  
solution for many new areas  
of application



## Reliable object detection

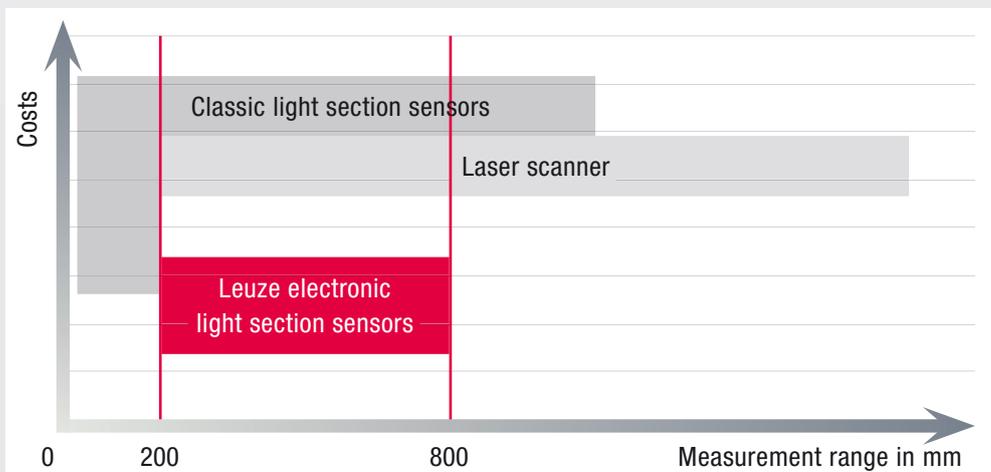
no longer needs to be a matter of price.

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

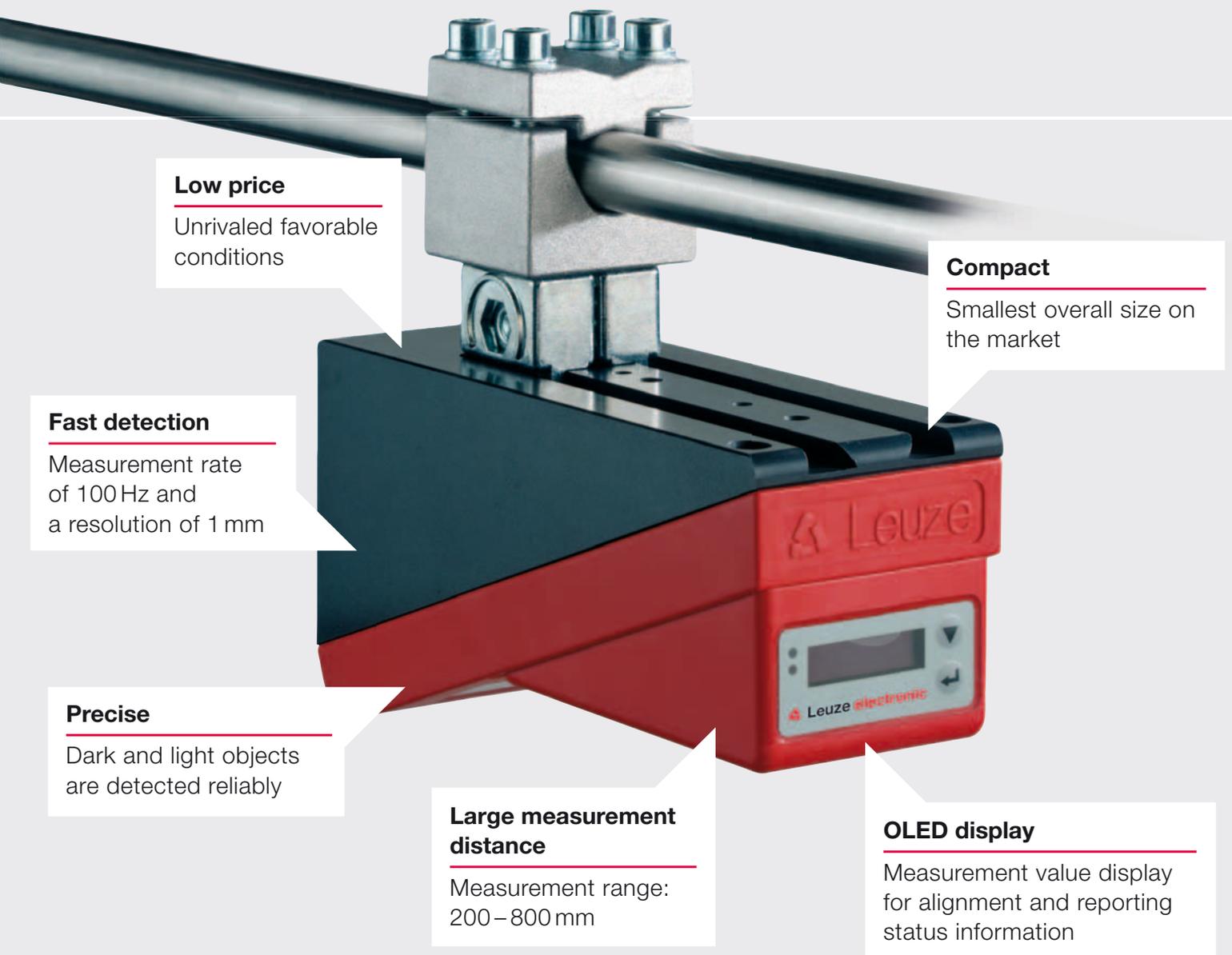
Our new light section sensors can be applied wherever large objects need to be detected reliably, quickly and accurately across longer distances but without extremely high requirements when it comes to precision.

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**

Unrivaled favorable conditions

**Compact**

Smallest overall size on the market

**Fast detection**

Measurement rate of 100Hz and a resolution of 1 mm

**Precise**

Dark and light objects are detected reliably

**Large measurement distance**

Measurement range: 200 – 800 mm

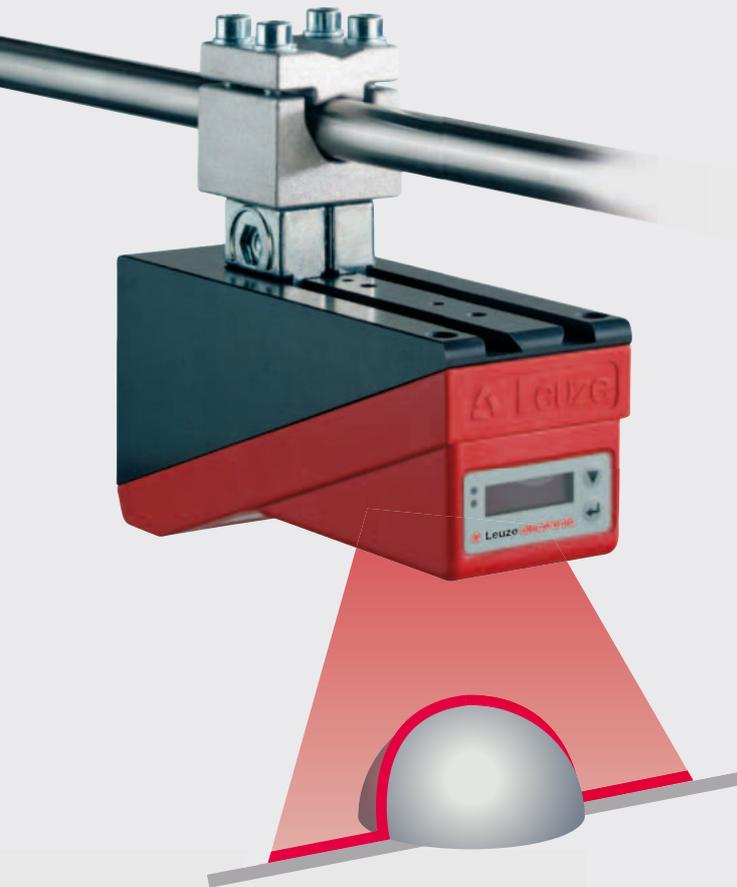
**OLED display**

Measurement value display for alignment and reporting status information

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 line 600 mm at a distance of 800 mm
- Measurement time: 10 ms
- Measurement range: 200–800 mm
- Compact size: 160 × 74 × 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.



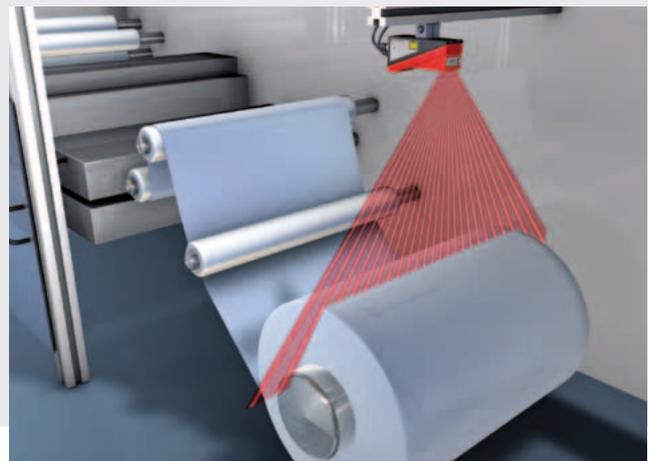
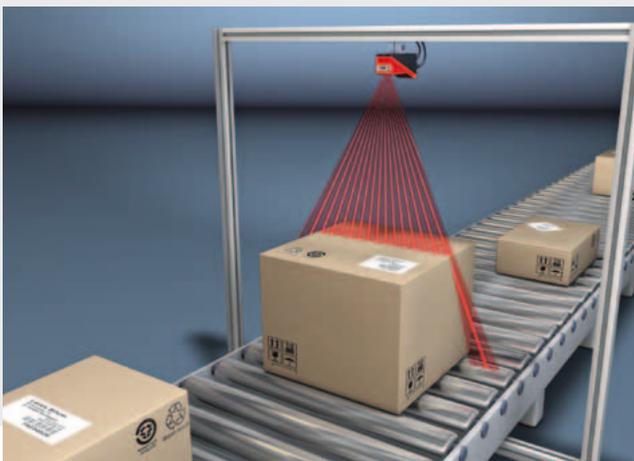
The LES sensors determine the dimensions and position of objects via their edges. By detecting height differences the sensor calculates and transfers accurate object positions. That way heights and widths or positions are reliably provided as data for further processing. At the same time one or more edge positions can be output via the individual configuration.

**Function data**

- Data calculation and processing directly inside the sensor
- Measurement time: 10 ms
- Measurement range: 200–800 mm
- Compact size: 160 × 74 × 56 mm
- Interface: Ethernet, analog or PROFIBUS
- Up to 4 measurement fields in 16 inspection tasks

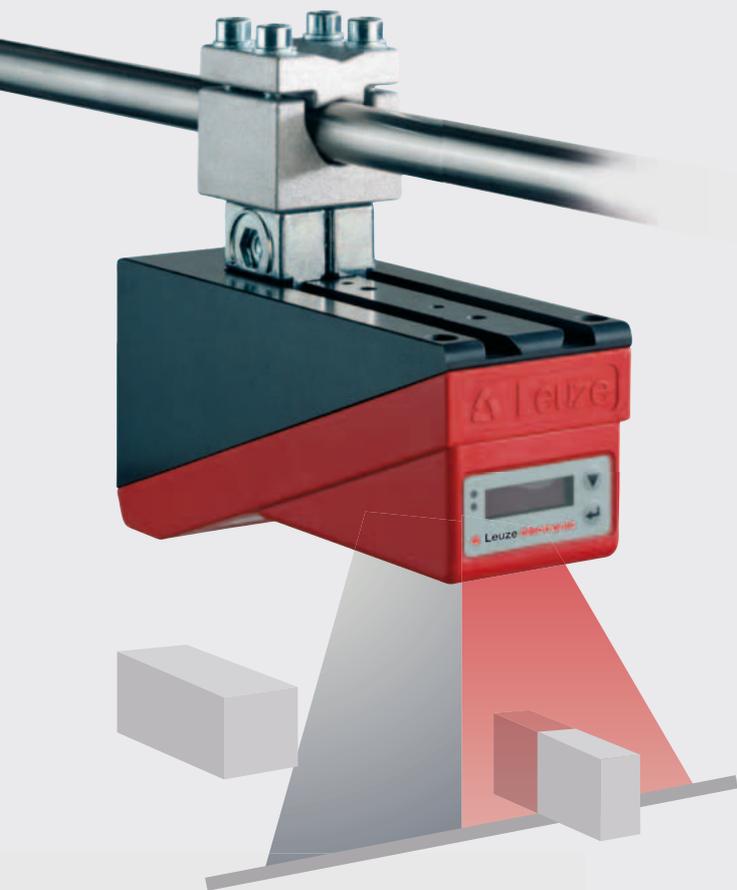
**Typical areas of application**

- 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**.



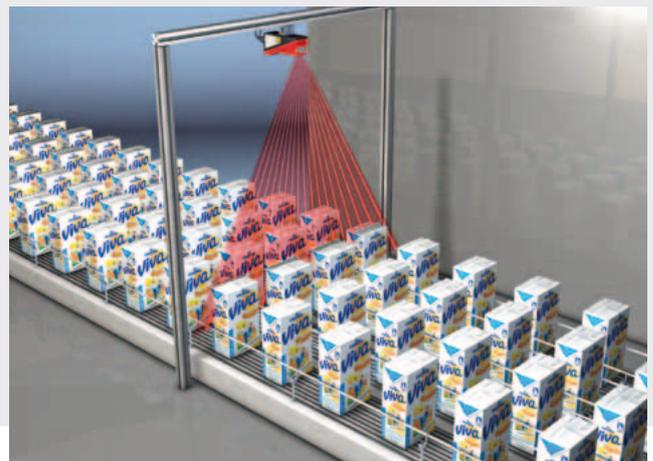
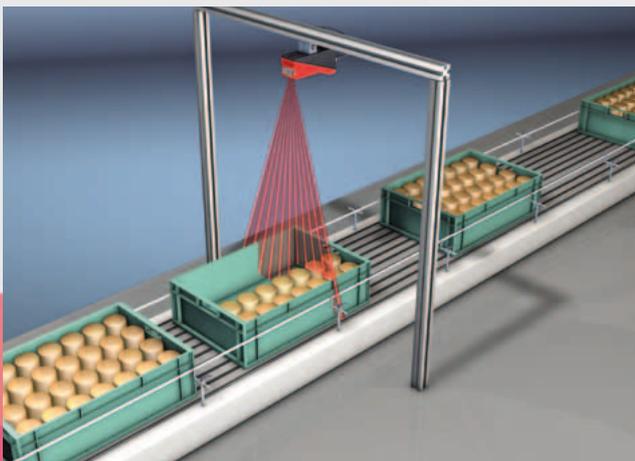
Line Range Sensors are designed to perform proximity object detection along the laser line. Comparable to a light barrier or laser scanner, the sensor scans and detects the presence of objects in up to 16 detection fields. With individual configuration, one sensor can be used to detect single or multiple objects.

#### Function data

- Data calculation and processing directly inside the sensor
- Response time: 10 ms
- Scanning area: 200–800 mm
- Compact size: 160 × 74 × 56 mm
- Interface: Ethernet, I/O or PROFIBUS
- Up to 16 detection fields in 16 inspection tasks

#### 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	1–3 mm	2–6 mm (minimum object size)
Measurement range	200–800 mm	200–800 mm	200–800 mm
Interface	Ethernet	Ethernet, analog, PROFIBUS	Ethernet, I/O, PROFIBUS
Optional	Encoder		
Application	Object measurement	Edge/width measurement	Object detection
Dimension	160 × 74 × 56 mm	160 × 74 × 56 mm	160 × 74 × 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 Sensors  
Measuring Sensors  
Special Sensors  
Light Curtains  
Forked Sensors  
Double Sheet Monitoring, Splice Detection  
Inductive Switches  
Accessories

## **Identification Systems**

### **Data Transmission Systems**

### **Distance Measurement**

Bar Code 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

Leuze electronic GmbH + Co. KG

In der Braike 1

D-73277 Owen/Germany

Phone +49 7021 573-0

Fax +49 7021 573-199

info@leuze.de

www.leuze.com