Light section sensors LPS/LES/LRS
The better and cheaper solution for many new 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 100 Hz 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
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
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)

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

<table>
<thead>
<tr>
<th></th>
<th>LPS</th>
<th>LES</th>
<th>LRS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line length</td>
<td>600 mm</td>
<td>600 mm</td>
<td>600 mm</td>
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<tr>
<td>Resolution</td>
<td>1 – 3 mm</td>
<td>1 – 3 mm</td>
<td>2 – 6 mm (minimum object size)</td>
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<tr>
<td>Measurement range</td>
<td>200 – 800 mm</td>
<td>200 – 800 mm</td>
<td>200 – 800 mm</td>
</tr>
<tr>
<td>Interface</td>
<td>Optional Ethernet</td>
<td>Optional Ethernet, analog, PROFIBUS</td>
<td>Optional Ethernet, I/O, PROFIBUS</td>
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<tr>
<td>Application</td>
<td>Object measurement</td>
<td>Edge/width measurement</td>
<td>Object detection</td>
</tr>
<tr>
<td>Dimension</td>
<td>160 × 74 × 56 mm</td>
<td>160 × 74 × 56 mm</td>
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</tr>
<tr>
<td>Trigger/activation</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Cascading</td>
<td>Yes, up to 9 sensors</td>
<td>Yes, up to 9 sensors</td>
<td>Yes, up to 9 sensors</td>
</tr>
</tbody>
</table>

Specifications and application examples.
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