



# LIGHT SECTION SENSORS LPS / LES / LRS

The better and cheaper  
solution for many new areas  
of application



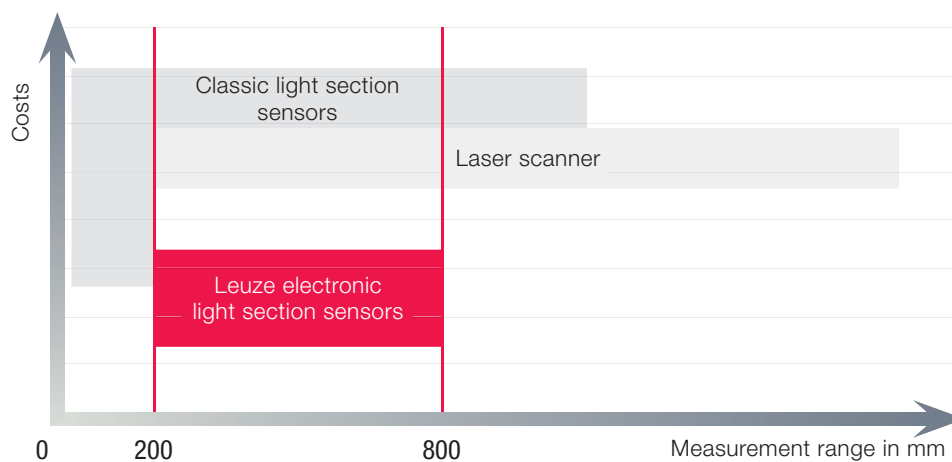
# Reliable object detection no longer needs to be a matter of price.

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

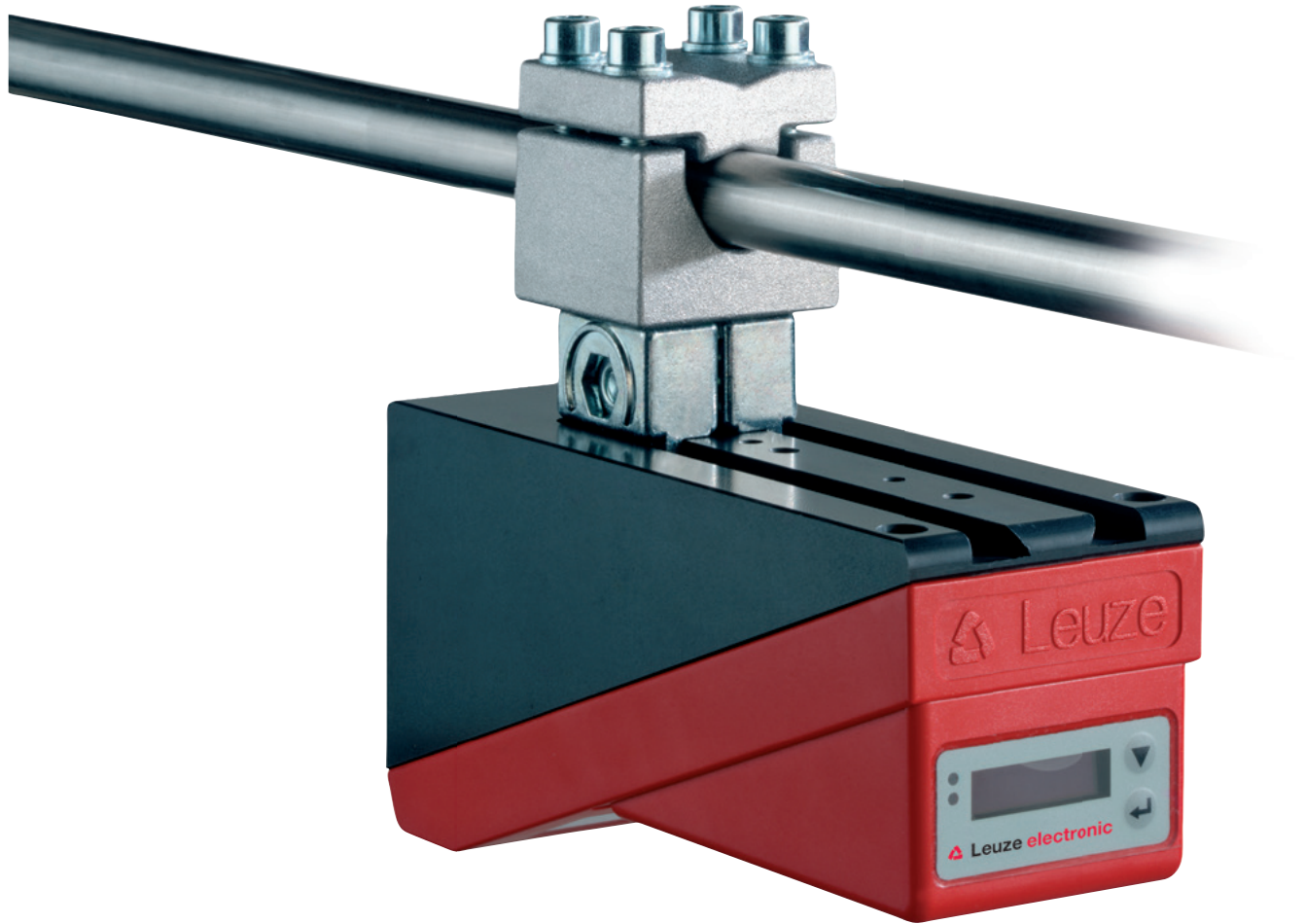
Our new light section sensors can be applied wherever large objects need to be detected reliably, quickly and accurately across longer distances but without extremely high requirements when it comes to precision.

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

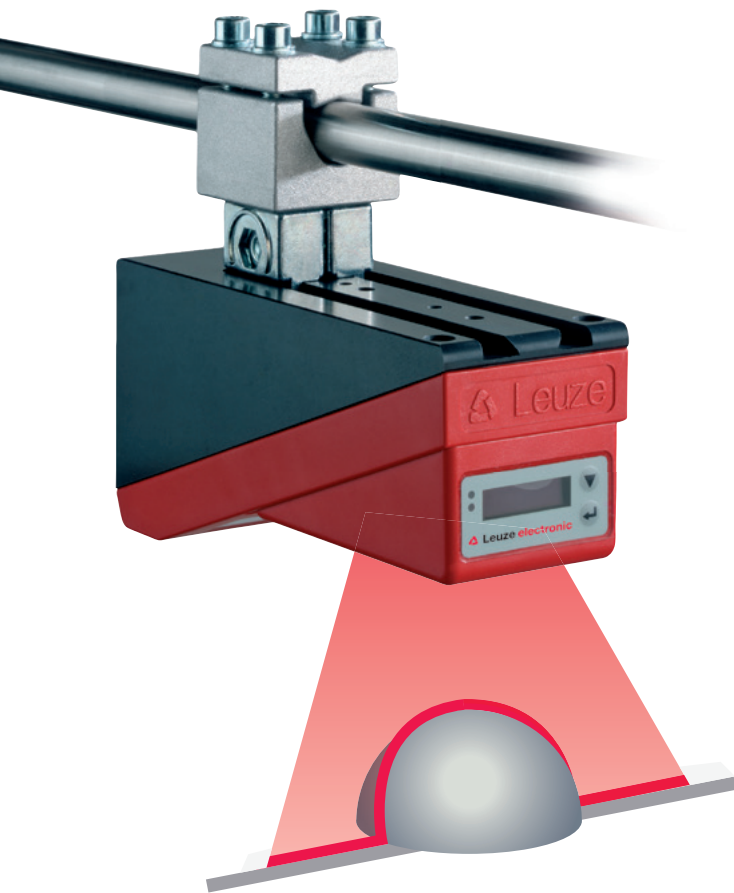


## The secret of success: The large measurement range.



- **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

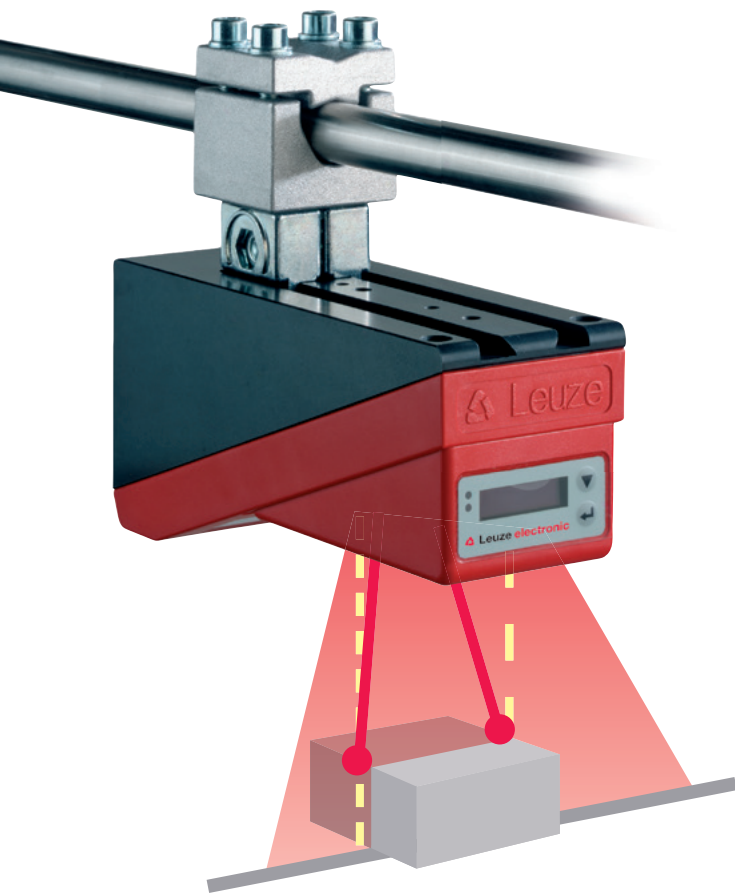
- Laser line 600 mm at a distance of 800 mm
- Measurement time: 10 ms
- Measurement range: 200–800 mm
- Compact size: 160 × 74 × 56 mm
- Interface: Ethernet
- Optional: Encoder

#### 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.



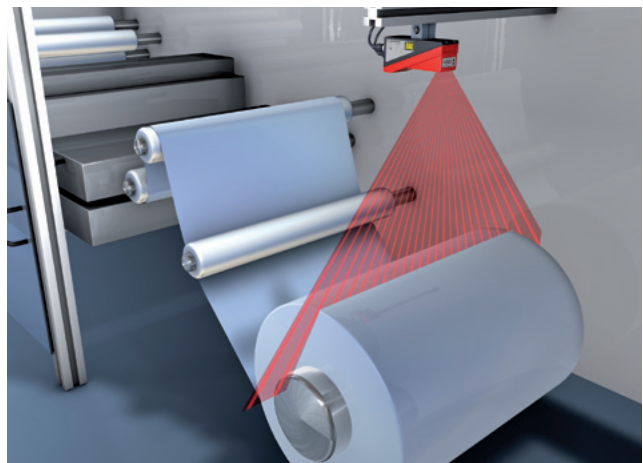
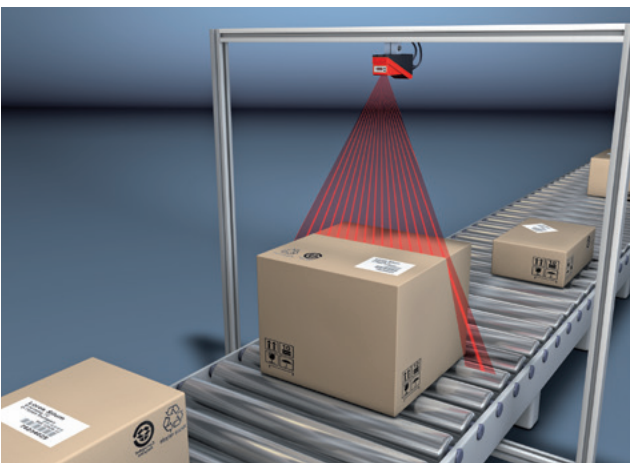
The LES sensors determine the dimensions and position of objects via their edges. By detecting height differences the sensor calculates and transfers accurate object positions. That way heights and widths or positions are reliably provided as data for further processing. At the same time one or more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

### Function data

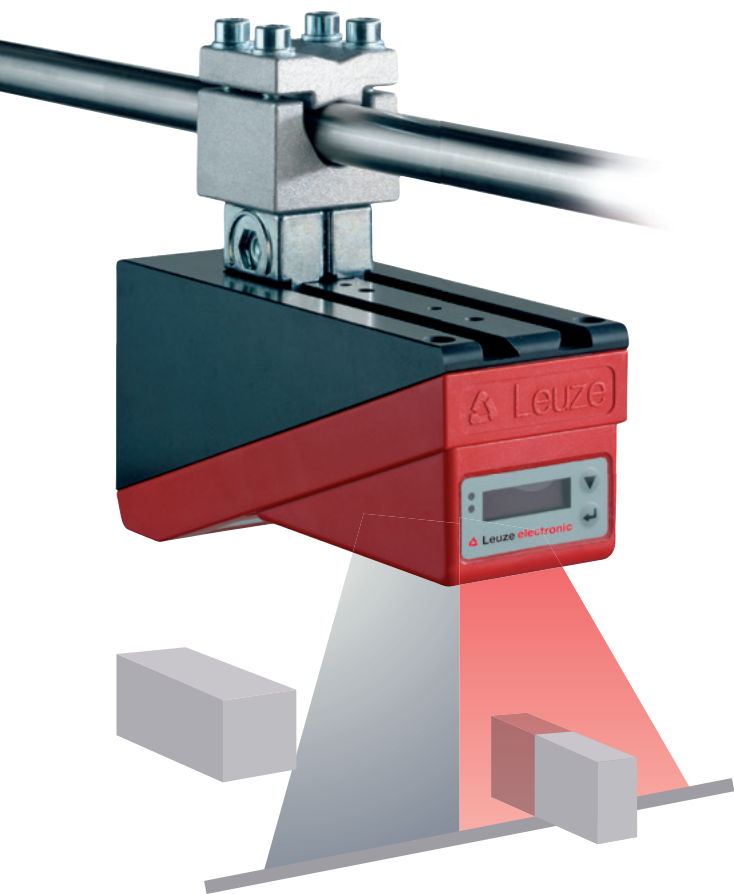
- Data calculation and processing directly inside the sensor
- Measurement time: 10 ms
- Measurement range: 200 – 800 mm
- Compact size: 160 × 74 × 56 mm
- Interface: Ethernet, analog or PROFIBUS
- Up to 4 measurement fields in 16 inspection tasks

### 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.



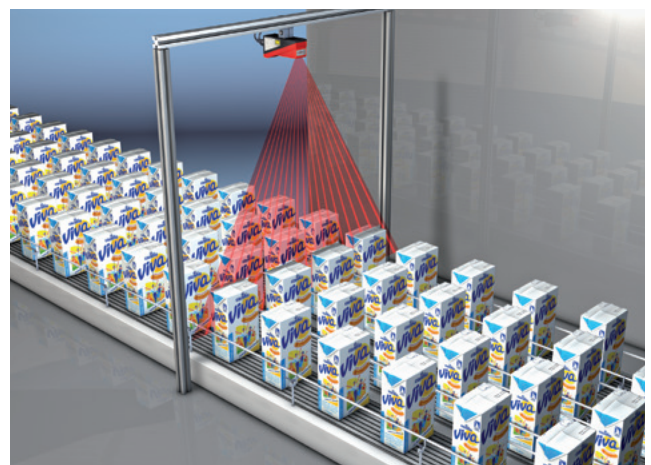
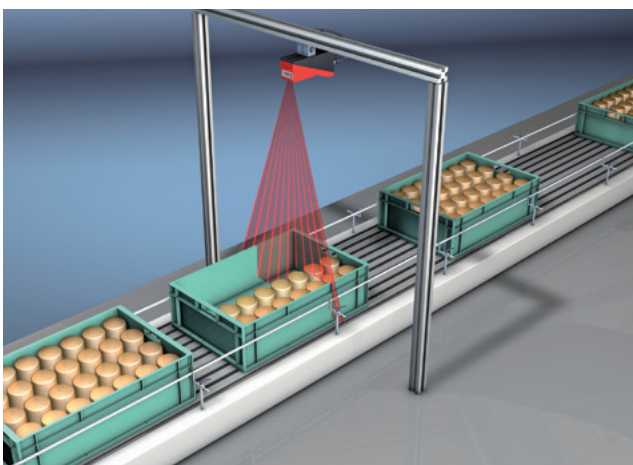
Line Range Sensors are designed to perform proximity object detection along the laser line. Comparable to a light barrier or laser scanner, the sensor scans and detects the presence of objects in up to 16 detection fields. With individual configuration, one sensor can be used to detect single or multiple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



SMART  
**SENSOR**  
BUSINESS

SMART IS  
TO THINK **EASY**,  
TO SHARE **EXPERIENCE**,  
TO BE **CLOSE**,  
TO CREATE THE **FUTURE**

More than 50 years of experience made Leuze electronic a real expert in innovative and efficient sensor solutions for industrial automation. With our wide sales- and service-network, our knowledgeable consulting and our reliable customer service we are always close to you – worldwide.



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Felix Beintner,  
Order Management  
International



**EASY**

Technology must serve people. Complex and technically sophisticated products should be as **easy** and intuitive to use as possible by our customers. This is both an aspiration and a development maxim – to the benefit of our customers.

**EXPERI-  
ENCE**

More than 50 years of **experience** and a close relationship with our customers have made us true experts in specific industries. This is how we develop individual sensor solutions for and with our customers.

**PROXI-  
MITY**

Think global, act local – this characterizes the sensor people. **Customer proximity** means not only being there for our customers 24/7, providing them with sound advice, and supporting them with an extensive range of services, but also responding to their individual desires and needs worldwide.

**FUTURE**

Sensors are the basis for all automation and for Industry 4.0 or IIoT. Together with our customers and strategic partners we are working on **future-oriented technologies** in order to make data and information available worldwide.

SMART  
**SENSOR**  
BUSINESS

# WE ARE THE **SENSOR PEOPLE**

For more than 50 years, we have been developing, producing, and marketing efficient sensor solutions for industrial automation.

## Leuze electronic at a glance

Foundation	1963
Company structure	GmbH & Co. KG, wholly family-owned
Executive management	Ulrich Balbach
Headquarters	Owen, Germany
Distribution companies	18
Production locations	5
Technological competence centers	3
Distributors	40
Employees	> 1,000

## Product range

Switching sensors  
Measuring sensors  
Products for safety at work  
Identification  
Data transmission systems  
Industrial image processing  
Accessories

## Industry expertise

Intralogistics  
Packaging industry  
Machine tools  
Automotive industry  
Medical technology

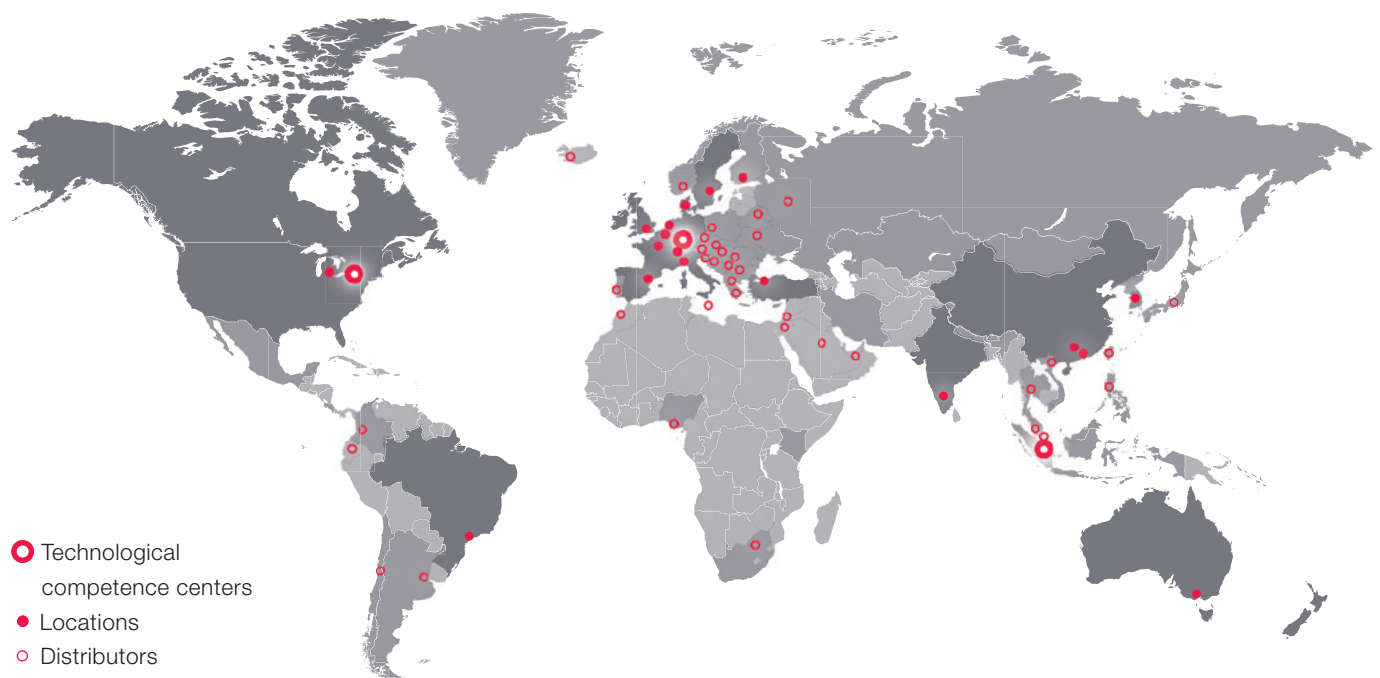


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# ALWAYS CLOSE TO YOU

Short distances are important to us – both within and outside of our company. We therefore place great value on being personally, quickly, and easily accessible to you at our locations around the world. We produce our sensors on four continents, allowing us to offer you reliable product availability.



Australia/New Zealand | Belgium | Brazil | China | Denmark/Sweden | France | Germany | Great Britain | Hong Kong  
India | Italy | the Netherlands | Switzerland | Singapore | Spain | South Korea | Turkey | USA/Canada

## **Switching Sensors**

Optical Sensors  
Ultrasonic Sensors  
Fiber Optic Sensors  
Inductive Switches  
Forked Sensors  
Light Curtains  
Special Sensors

## **Measuring Sensors**

Distance Sensors  
Sensors for Positioning  
3D Sensors  
Light Curtains  
Forked Sensors

## **Products for Safety at Work**

Optoelectronic Safety Sensors  
Safe Locking Devices, Switches and Proximity Sensors  
Safe Control Components  
Machine Safety Services

## **Identification**

Bar Code Identification  
2D-Code Identification  
RF Identification

## **Data Transmission / Control Components**

MA Modular Connection Units  
Data Transmission  
Safe Control Components  
Signaling Devices  
Connection Technology and Passive Distribution Boxes

## **Industrial Image Processing**

Light Section Sensors  
Smart Camera

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