SmartReflect®
The light barrier without reflector.
A world first from Baumer:

**SmartReflect®** – reliable and economical.

With **SmartReflect®** Baumer has reinvented the optical light barrier: The reflector as the weak point is eliminated and highly reliable object detection is still guaranteed. That reduces your costs tremendously. Since every interruption of the light beam by any object is detected thanks to the **SmartReflect®** principle, the **SmartReflect®** light barrier can reliably detect objects independent of their shape, color or surface finish. The **SmartReflect®** detects virtually anything – even mirrors.

---

Maximum system uptime and process safety
- Very reliable object detection thanks to barrier principle
- Elimination of the reflector as a potential source of error
- No function impairment through dirt accumulation
- Available in robust washdown or hygiene design

Reduction of operating costs
- No reflector means time saving installation
- No need for a reflector eliminates exchange and wear
- No need for a reflector eliminates cleaning effort

Raising productivity
- Sensing range up to 1.9 m or 1 m for transparent objects
- High machine performance thanks to short response times of < 0.25 ms
- Fast format changes, easy sensor exchange and additional usage data via IO-Link

Wouldn’t you like to save money too?
Individual solutions for your industry.

- Space-saving miniature sensors
  - Very small designs with cable outlet at the rear or below
  - Point or line versions
  - Fast configuration by qTeach®
  - IO-Link — Industry 4.0 and IoT-ready
  - Sensing range up to 300 mm

- Rectangular standard sensors
  - Easy implementation and operation
  - Quick configuration by qTeach®
  - Short response times of < 0.25 ms
  - IO-Link — Industry 4.0 and IoT-ready
  - Sensing range up to 1000 mm

- Cylindrical M18 sensors
  - Rugged M18 metal housing
  - Baumer PinPoint LED
  - Simple and user-friendly commissioning with qTeach®
  - Sensing range up to 300 mm
We at Baumer know that different industries can require different features.

That’s why we manufacture the SmartReflect® light barrier in different versions individually matched to the needs of your field. For example hygiene-certified by EHEDG for the food industry, space-saving and flexible for handling technology or easy to adjust and not sensitive to soiling or dust for the graphical industry. Increase your process safety with SmartReflect®.

Sturdy stainless steel sensors in wash-down or hygiene design
O300 / O500 / FNDR14 / FNDH14
- EHEDG certified, FDA-compliant, Eco-lab tested and IP 69K
- Long-term sealing thanks to proTect+
- Variants with IO-Link and for transparency detection
- Sensing range up to 1000 mm

Long range up to 1.9 m
O500 / ONDK 25
- Safe Class 1 lasers
- Easy and user-friendly commissioning by qTeach®
- IP 67
- Sensing range up to 1900 mm

Linear beam for seamless detection
O300
- Up to 67 mm long line
- Detection of small or perforated objects
- Laser class 1 or PinPoint LED
- Easy and user-friendly commissioning by qTeach®
- IO-Link – Industry 4.0 and IIoT ready
SmartReflect® – clear advantages in transparency detection.

The O300 and O500 SmartReflect® Transparent sensors set new standards in the detection of transparent objects. The light barrier without a reflector is the only sensor in its class to detect transparent objects of any shape or structure up to a distance of 1 meter. Both sizes are available in plastic and high grade stainless steel. Thanks to this variety, SmartReflect® Transparent sensors are the ideal solution in all areas of the packaging industry.

Digitization begins with the sensor.

IIO-Link supports not only the bi-directional transmission of sensor parameters like measuring ranges or sensitivity levels for fast for fast format changes. The interface also supplies qualified process and diagnostic data for optimized, cost-saving maintenance processes. This means that the IO-Link sensors by Baumer are “Ready for Industry 4.0”.

Cost-effective & securely connected
Simple & safe operation
Extended settings
Additional data
Increased flexibility
Fast sensor exchange
## Smart products for all requirements

<table>
<thead>
<tr>
<th>Description</th>
<th>Sensing range</th>
<th>Light source</th>
<th>Response time</th>
<th>IO-Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miniature</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FNCK 07</td>
<td>17 ... 45 mm</td>
<td>Red LED</td>
<td>&lt; 0.5 ms</td>
<td>□</td>
</tr>
<tr>
<td>O200.SP</td>
<td>20 ... 180 mm</td>
<td>PinPoint LED</td>
<td>&lt; 0.25 ms</td>
<td>□</td>
</tr>
<tr>
<td>O300.SP</td>
<td>30 ... 300 mm</td>
<td>Laser Class 1</td>
<td>&lt; 0.25 ms</td>
<td>□</td>
</tr>
<tr>
<td>O300.SL</td>
<td>30 ... 250 mm</td>
<td></td>
<td>&lt; 0.25 ms</td>
<td>□</td>
</tr>
<tr>
<td>Standard</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>O500.SP</td>
<td>60 ... 600 mm</td>
<td>Red LED</td>
<td>&lt; 0.25 ms</td>
<td>□</td>
</tr>
<tr>
<td>FNDK 14</td>
<td>50 ... 800 mm</td>
<td>PinPoint LED</td>
<td>&lt; 1.8 ms</td>
<td>□</td>
</tr>
<tr>
<td>ONDK 25</td>
<td>1900 mm</td>
<td></td>
<td>&lt; 10 ms</td>
<td>□</td>
</tr>
<tr>
<td>Stainless steel</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>O300W.SP</td>
<td>30 ... 300 mm</td>
<td>Red LED</td>
<td>0.49 ms</td>
<td>□</td>
</tr>
<tr>
<td>O300W.SL</td>
<td>30 ... 250 mm</td>
<td>PinPoint LED</td>
<td>&lt; 0.25 ms</td>
<td>□</td>
</tr>
<tr>
<td>O300H.SL</td>
<td>30 ... 250 mm</td>
<td>Laser Class 1</td>
<td>&lt; 0.25 ms</td>
<td>□</td>
</tr>
<tr>
<td>O300H.SP</td>
<td>30 ... 300 mm</td>
<td></td>
<td>0.49 ms</td>
<td>□</td>
</tr>
<tr>
<td>O500W.SP</td>
<td>60 ... 600 mm</td>
<td>Red LED</td>
<td>&lt; 0.49 ms</td>
<td>□</td>
</tr>
<tr>
<td>O500H.SP</td>
<td>60 ... 600 mm</td>
<td>PinPoint LED</td>
<td>&lt; 0.25 ms</td>
<td>□</td>
</tr>
<tr>
<td>FNDR 14</td>
<td>50 ... 800 mm</td>
<td>PinPoint LED</td>
<td>&lt; 1.8 ms</td>
<td>□</td>
</tr>
<tr>
<td>FNDH 14</td>
<td>50 ... 800 mm</td>
<td>Laser Class 1</td>
<td>&lt; 1.8 ms</td>
<td>□</td>
</tr>
<tr>
<td>Transparent detection</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OR18.SP</td>
<td>55 ... 300 mm</td>
<td>Red LED</td>
<td>&lt; 0.49 ms</td>
<td>□</td>
</tr>
<tr>
<td>O300.SPT</td>
<td>30 ... 250 mm</td>
<td>PinPoint LED</td>
<td>&lt; 0.25 ms</td>
<td>□</td>
</tr>
<tr>
<td>O300W.SPT</td>
<td>30 ... 300 mm</td>
<td>Laser Class 1</td>
<td>&lt; 0.25 ms</td>
<td>□</td>
</tr>
<tr>
<td>O300H.SPT</td>
<td>30 ... 300 mm</td>
<td></td>
<td>&lt; 0.25 ms</td>
<td>□</td>
</tr>
<tr>
<td>O500.SPT</td>
<td>30 ... 1000 mm</td>
<td>Red LED</td>
<td>&lt; 0.25 ms</td>
<td>□</td>
</tr>
<tr>
<td>O500W.SPT</td>
<td>30 ... 1000 mm</td>
<td>PinPoint LED</td>
<td>&lt; 0.25 ms</td>
<td>□</td>
</tr>
<tr>
<td>O500H.SPT</td>
<td>30 ... 1000 mm</td>
<td>Laser Class 1</td>
<td>&lt; 0.25 ms</td>
<td>□</td>
</tr>
<tr>
<td>FNDH 14</td>
<td>20 ... 800 mm</td>
<td>PinPoint LED</td>
<td>&lt; 1.8 ms</td>
<td>□</td>
</tr>
</tbody>
</table>

For more information about our SmartReflect® sensors please visit www.baumer.com/smartreflect

Find your local partners at: www.baumer.com/worldwide

---

Baumer
Passion for Sensors

Baumer Group
International Sales
P.O. Box · Hummelstrasse 17 · CH-8501 Frauenfeld
Phone +41 (0)52 728 1122 · Fax +41 (0)52 728 1144
sales@baumer.com · www.baumer.com