O300, O500 Light barriers and diffuse sensors
A unique portfolio for reliable object detection.
O300/O500 – The easy solution for reliable object detection.

Solve applications simply and properly
Thanks to the choice of two housing sizes in three designs, four light sources and seven sensor principles, among other options, you are sure to find the right sensor solution for your application.

Process safety through extended performance reserves
Powerful processors, sophisticated optical measuring technology, high MTTF values and intelligent analysis algorithms guarantee you the necessary reserves to make sure that objects are always reliably detected, even under difficult conditions.

Simple implementation
Flexibility in machine design thanks to the uniform housing in OneBox Design, fast installation thanks to the qTarget® aligned light beam and optimum adjustment with the reliable and wear-free qTeach® and 1-step teach-in procedure allow you to implement solutions very easily.

Uniform operating concept
qTeach®, the comfortable and wear-free teach-in procedure by Baumer, allows flexible and accurate adjustment of the sensors. The shortened 1-step teach-in procedure is available for simple applications.

Ready for Industry 4.0
The use of additional sensor data via the IO-Link interface offers not only further improvements in efficiency but also the option of developing completely new products and services. Examples are proactive maintenance and highly flexible parameterization in complex format changes.
The O300/O500 highlights.

In a nutshell – O300/O500 laser

- Detection of tiny objects thanks to a very accurate, 0.1 mm light beam
- Precise control of fast processes thanks to response times < 0.1 ms
- Reliable detection of parts positioned close together
- Laser class 1, to protect your eyes
- The high repeatability allows very precise positioning of small objects

SmartReflect® – the first light barrier without a reflector

- Highly reliable object detection thanks to the sensor principle
- Greater process safety through elimination of the reflector as the weak point
- No function impairment from dirt accumulation
- Reduction of running costs: fast installation, no downtimes caused by defective or dirty reflector

Detection of transparent objects from up to one meter without reflector

- Unique range of 1 meter without reflector
- Response time of only 0.25 ms allows usage in fast applications
- One sensor for all objects: PET and glass bottles, trays, films or flow packs
- Large sensing distance thanks to very small blind region

Improvement in reliability – O300/O500 in stainless steel with proTect+

- Thanks to the proTect+ impermeability concept by Baumer, the sensors offer maximum reliability and a long service life
- The special design and the selection of high-quality materials guarantee maximum strength
- More than just IP 69K: the sensors undergo a demanding testing procedure consisting of high-pressure cleaning, immersion tests lasting 168 hours as well as temperature shock tests in water and air
Light sources for every application.

<table>
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<th>Standard LED (R)/Infrared LED (I)</th>
<th>Baumer PinPoint (P)</th>
<th>Laser (L)</th>
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<td>Diffuse sensor with background suppression (O300.Gx)</td>
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<tr>
<td></td>
<td>O500.ER.x</td>
<td>O500.TR.x</td>
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</tbody>
</table>

*Range: light barriers = nominal range, diffuse sensors = sensing distance

Please find the complete portfolio including hygienic and washdown design in the Baumer product finder at www.baumer.com.
The ideal platform for tailor-made solutions.

- **O300** — for tight spaces (12.9 × 32.3 × 23 mm)
- **O500** — for larger ranges (18 × 45 × 32 mm)
- Compact plastic housing IP 67
- Stainless steel washdown design IP 68/69K, Ecolab and proTect+
- Stainless steel hygienic design with Ecolab and proTect+ conforms to EHEDG and FDA

**Diffuse sensor with background suppression**

**Diffuse sensor with intensity difference**

**SmartReflect®** — light barrier without reflector

**SmartReflect® Transparent**

**Retro-Reflexive sensor**

**Retro-Reflexive sensor for transparent objects**

**Through beam barrier**

- **Standard LED** — diffuse light spot, especially suited for object detection during parts feeding
- **Baumer PinPoint LED** — small, homogenous light spot with a sharp focus
- **Infrared LED** — invisible light spot e.g. used for light barriers
- **Laser** — focused, clearly visible light beam, well suited for accurate positioning tasks

**2 housing sizes**

**3 housing designs**

**4 light sources**

**More than 2500 sensor variants**

**IO-Link**
Accessories.

- Sensofix mounting
- Mounting angles
- Connectors
- Reflector
- Stainless steel reflectors, EHEDG and Ecolab-certified
- Mountings for sensors in hygienic design
- Connectors/Plugs in washdown design
- Magnetic teach pen
- USB IO-Link Master

You can find further information about additional models of the new performance category in optical sensors at:

www.baumer.com/O300 – O500

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