

O500

The new performance category
in optical sensor technology



O500 – The first series of Baumer *NextGen* sensors.

With the first O500 series, Baumer has created a new performance category in optical sensor technology through consistent innovation. Further series of Baumer *NextGen* sensors with new sensor principles will follow.

- **qTeach**: Convenient and reliable teach procedure through closed housing features easy operability without wear.
- **OneBox Design**: One housing design with different sensor principles.
- **qTarget**: Thanks to an optimum sensor configuration in which the optical components are aligned towards one another by design, the light beam of the Baumer sensors always hits the defined target.
- **Aline**: Innovative, powerful CMOS Opto-ASIC for fast and temperature-stable sensors with high ambient light immunity.

O500 series— maximum safety and convenience

Maximum reliability

- Increased power reserves for reliable operation in demanding conditions
- **qTeach** guarantees reliable commissioning
- Seamlessly integrated electronics increases MTF values

Convenience

- Design-in thanks to 3D model with integrated optical axis
- Maximum flexibility during the entire planning phase thanks to **OneBox Design**
- Commissioning through easy and perfectly guided **qTeach**
- **qTarget** reduces adjustment operations during installation thanks to the aligned optical axis

Low total operating costs

- Baumer offers added value from planning to operation through simple usage
- The most economical solution for optical sensor applications



O500 series highlights.



Three strong sensor principles.

Diffuse sensor with background suppression – precise and extremely color-independent

- *Aline* technology – for maximum capacity and efficiency
- Detects objects with various shapes and surfaces even more reliably
- Extremely color-independent diffuse sensor with background suppression
- Standard LED or Baumer *PinPoint* LED for all accuracy requirements

Your benefits: Maximum functional reliability during object detection

SmartReflect – The light barrier without a reflector

- Highly reliable object detection thanks to the sensor principle
- No separate receiver/reflector required

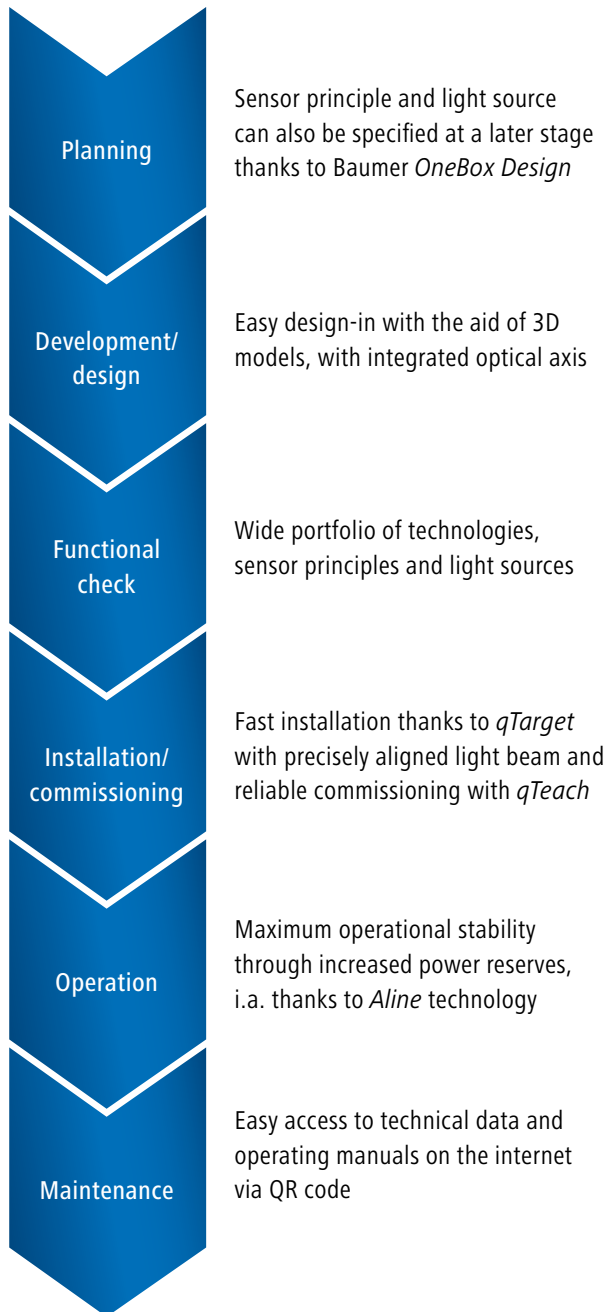
Your benefits: No downtimes due to defective reflectors

Retro-reflective sensor – the light barrier also for reflective surfaces

- Consistently high excess gain in typical applications up to 2 m
- Red light or *PinPoint* for all accuracy requirements

Your benefits: Longer service life thanks to increased dirt resistance

From conception to maintenance – Baumer provides the perfect solution.



Developed for many industries.

Examples:



Packaging industry

With the new O500 series we are setting new benchmarks with regard to reliability and convenience, thus meeting the challenges of the packaging industry in an ideal way.



Installation/handling and automation

When it comes to required features like precision, reliability and compact design, the O500 series offers optimum solutions for object detection and positioning.

Baumer *NextGen* sensors – innovation for greater safety, convenience and optimized total operating costs.



Baumer *qTeach* – easy-to-operate, safe and wear-free

With *qTeach* we are introducing a new, convenient and wear-free teach procedure. The O500 sensors can be taught-in just by touching them with any ferromagnetic tool. A blue LED light provides clear optical feedback. To prevent user errors, *qTeach* locks autonomously after 5 minutes.



Baumer – *qTarget* – Time saving during installation

The light beam of the sensor is aligned to the fixing holes by design at Baumer. This eliminates individual part tolerances, providing the entire sensor series with a light beam that is aligned with consistent accuracy.



Baumer *OneBox Design* – flexibility during planning

OneBox Design stands for a new Baumer housing design. Baumer *NextGen* sensors feature the same dimensions, through holes and control elements for all sensor principles and technologies within the series.

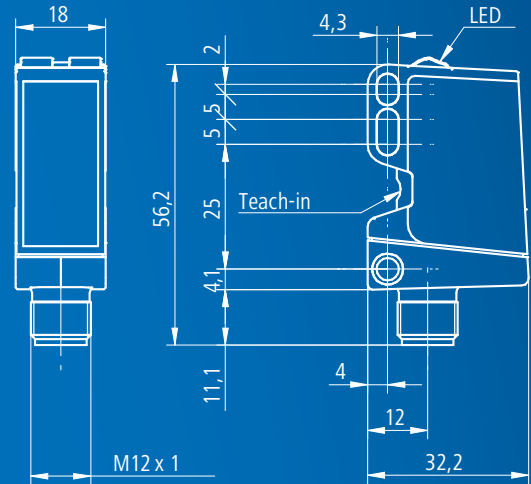
Maximized range – freedom during development

As measured by their dimensions, O500 series sensors have the largest sensing distances and ranges. Larger ranges combined with a compact design enable more flexible selection and placement of the sensor.

Light sources – for every application

	Light source	Diffuse sensor with background suppression	Retro-reflective sensor	<i>SmartReflect</i> Light barrier
Standard LED: The diffuse light spot is especially suited for object detection during parts feeding				
Baumer <i>PinPoint</i> LED: A small, homogeneous light spot with sharp edges makes <i>PinPoint</i> ideal for exact positioning and detection of small parts.				

Product overview of O500 series



Sensor principle	Light source	Range	Output function	Connection	External teach	Order code*
Diffuse sensor with background suppression	Standard LED	600 mm	Push-Pull	M12, 3-pin		O500.GR-11096062
Diffuse sensor with background suppression	Baumer <i>PinPoint</i> LED	400 mm	Push-Pull	M12, 4-pin	Yes	O500.GP-11096064
Retro-reflective sensor	Standard LED	8000 mm	Push-Pull	M12, 3-pin		O500.RR-11096090
Retro-reflective sensor	Baumer <i>PinPoint</i> LED	8000 mm	Push-Pull	M12, 4-pin	Yes	O500.RP-11096098
<i>SmartReflect</i> Light barrier	Baumer <i>PinPoint</i> LED	600 mm	Push-Pull	M12, 4-pin	Yes	O500.SP-11096080

* Additional versions available.

For installation and connection accessories go to: www.baumer.com/accessories



For more information about our O500 series go to:
www.baumer.com/O500

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



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