

O500, O300 ^{New}

The new performance categories
in optical sensor technology





Top performance in two sizes.

NextGen O300/O500



The name Baumer has always stood for innovation. Our new optical sensors are part of this tradition and now available in two sizes: O500 followed by miniature O300. Both sensors provide the same performance level.

Miniaturized O300 is particularly conceived for tight spots, whereas O500 stands out in applications where extended range is required.

Maximum safety and comfort, minimum operating costs.

- Increased excess gain for reliable operation under demanding conditions
- High MTTF values
- Compared to their size, the sensors provide the largest sensing distance and range
- The most cost-efficient solution for optical sensor applications



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

With *qTeach* we are introducing a new, convenient and wear-free teach procedure. Teaching of O500 sensors is just by a touch 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 installation

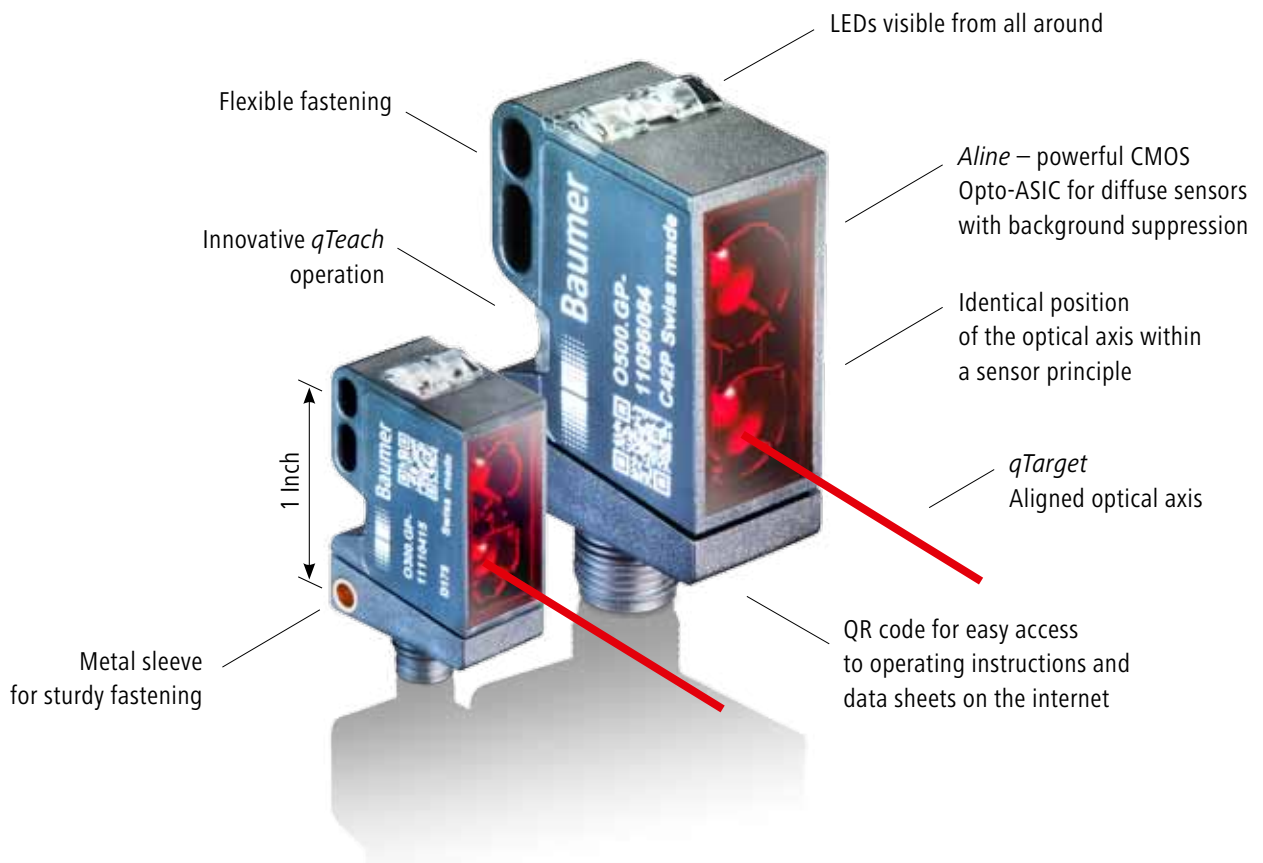
The Baumer design aligns the sensor's light beam to the fixing holes. This will not only compensate tolerances between individual components but ensures consistent alignment accuracy within the complete sensor series.



Baumer *OneBox Design* – high level of planning flexibility

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.

NextGen sensors – giving you a competitive edge.



SmartReflect

The light barrier without a reflector.

The new shining star in sensor technology

O300 and O500 sensors are available with varied sensing principles, such as a retro-reflective or diffuse sensor with background suppressor – and also with *SmartReflect* technique. Thanks to this outstanding Baumer technology, there is no more need for a reflector in object detection which will significantly cut down on costs.

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

Your benefit:

No downtimes as a result of dirty or defective reflectors.



From conception to maintenance.

Baumer takes the effective approach



Sensor principle and light source can also be specified at a later stage thanks to Baumer *OneBox Design*

Easy design-in with the aid of 3D models, with integrated optical axis

Wide portfolio of technologies, sensor principles and light sources

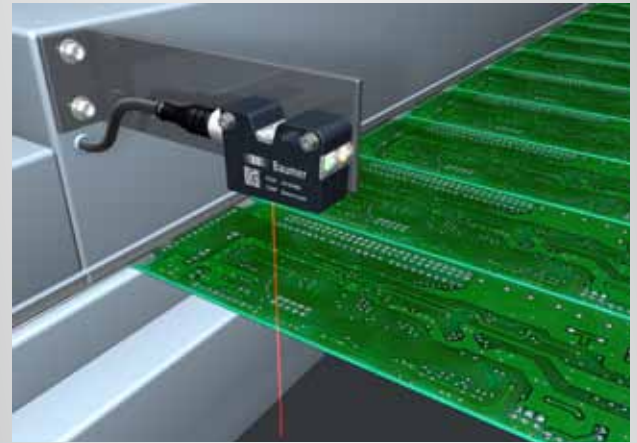
Fast installation thanks to *qTarget* with precisely aligned light beam and reliable commissioning with *qTeach*

Maximum operational stability through increased power reserves, i.a. thanks to *Aline* technology

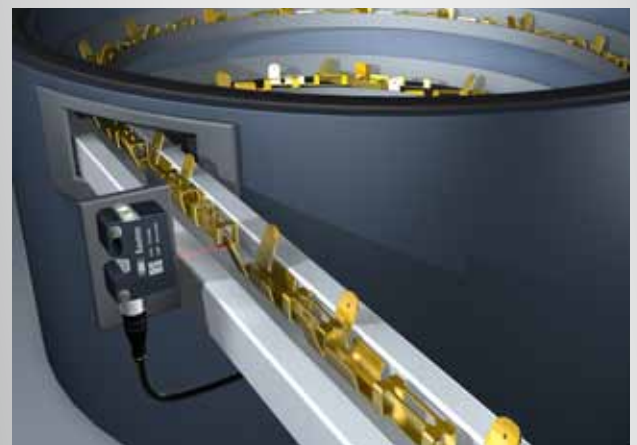
Easy access to technical data and operating manuals on the internet via QR code

O300. The new performance category – ideal for applications in limited spaces.

Examples:



Semiconductor industry



Assembly/handling



Packaging

Light sources – for every application.

Standard LED



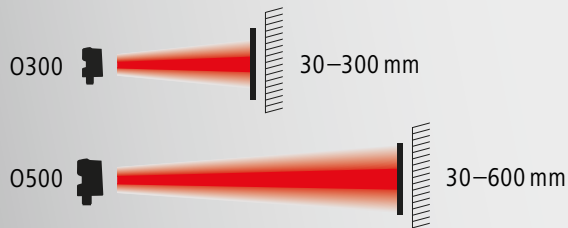
The diffuse light spot is especially suited for object detection during parts feeding.

Baumer *PinPoint* LED

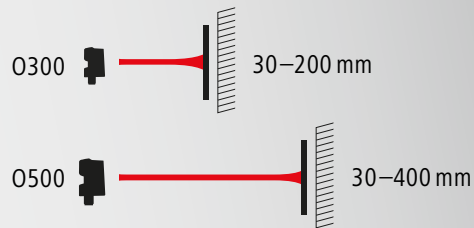


A small, homogenous light spot with a sharp focus makes *PinPoint* ideal for exact positioning and detection of small parts.

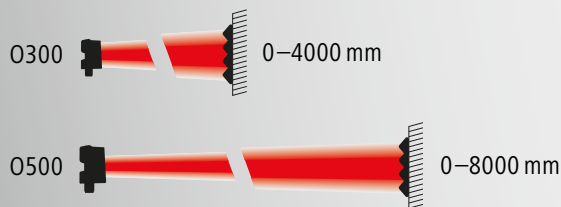
Diffuse sensor with background suppression



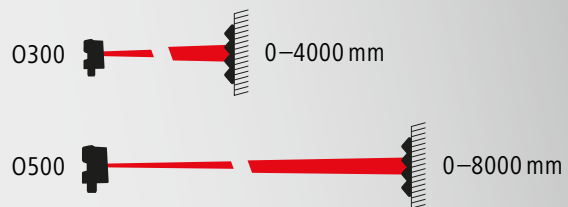
Diffuse sensor with background suppression



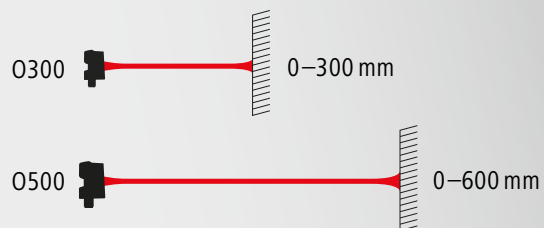
Retro-reflective sensor



Retro-reflective sensor



SmartReflect light barrier



Solutions for demanding applications.



Cascading*

- Prevents mutual interference of sensors positioned next to each other
- Reliable object detection in the most confined spaces

* Applies to *SmartReflect* and background suppressor



Fast

- Reliable thanks to fast operation
- All technologies feature a fast 0.5 ms response time



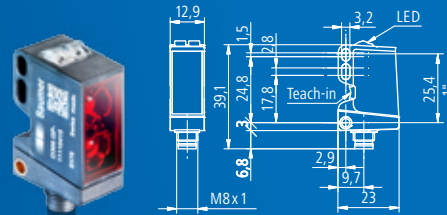
Keyhole Optic*

- Reliable detection at close range, from the smallest of openings up to 4mm.
- Consistently high excess gain even at close range

* Applies to retro-reflective sensor

Product overview

O300

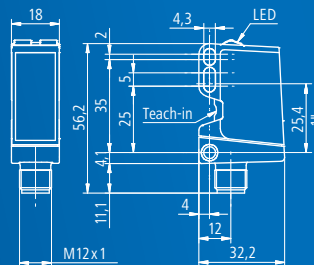


Accessories:
Mounting bracket L design

Sensor principle	Light source	Range	Output function	Connection	External teach	Order code
Diffuse sensor with background suppression	Standard LED	300 mm	Push-Pull	M8, 4-pin		O300.GR-11110414
Diffuse sensor with background suppression	Baumer <i>PinPoint</i> LED	200 mm	Push-Pull	M8, 4-pin	Yes	O300.GP-11110415
Retro-reflective sensor	Standard LED	4000 mm	Push-Pull	M8, 4-pin		O300.RR-11110443
Retro-reflective sensor	Baumer <i>PinPoint</i> LED	4000 mm	Push-Pull	M8, 4-pin	Yes	O300.RP-11110449
<i>SmartReflect</i> Light barrier	Baumer <i>PinPoint</i> LED	300 mm	Push-Pull	M8, 4-pin	Yes	O300.SP-11110450

All types also available with PNP/NPN outputs

O500



Accessories:
Mounting bracket Sensofix

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

All types also available with PNP/NPN outputs

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

For more information on the new performance categories in compact optical sensor technology visit:



www.baumer.com/O300



www.baumer.com/O500

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



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