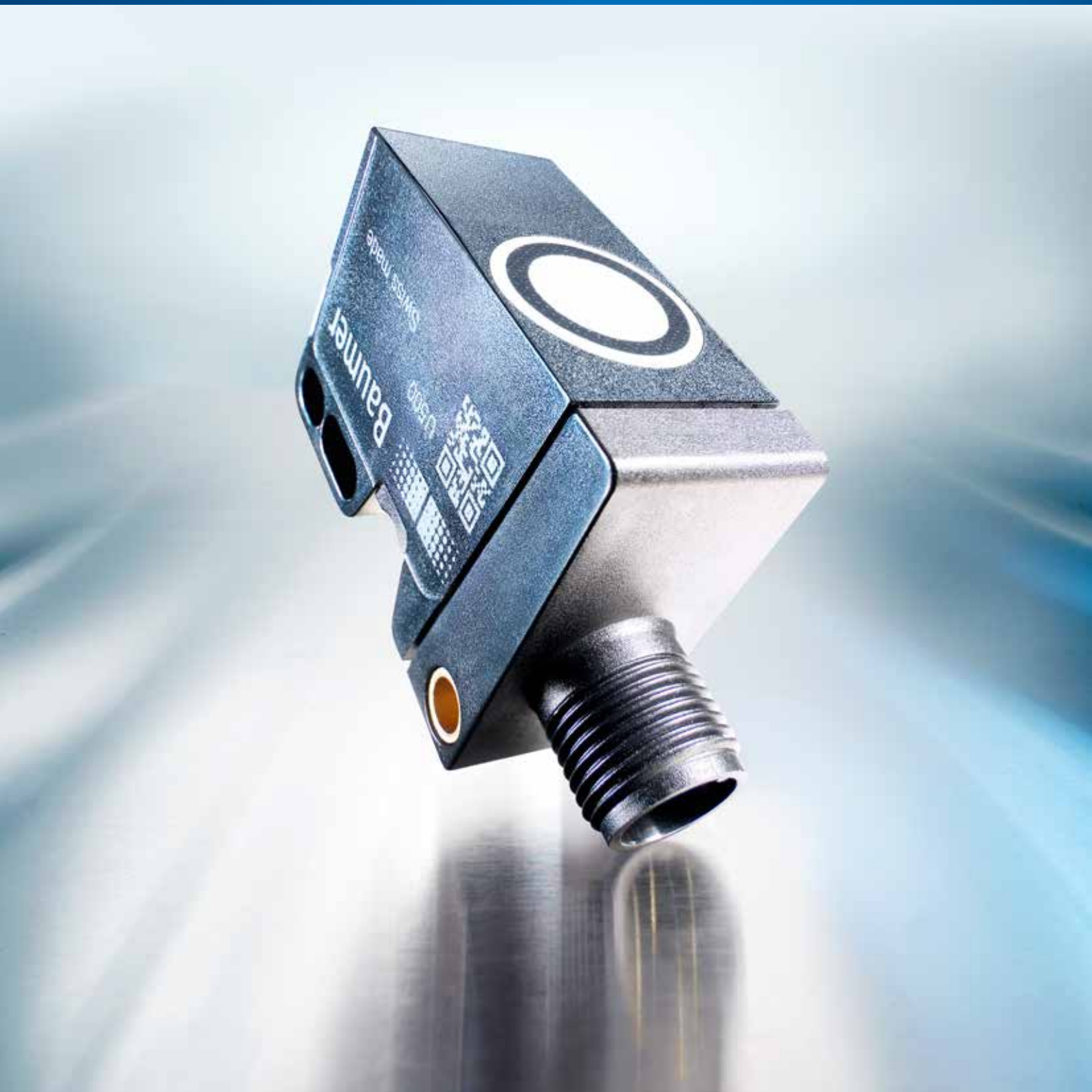
Baumer
Passion for Sensors

Another
Baumer
INNOVATION

U500

The new performance category in ultrasonic sensor technology



Success principle flexibility

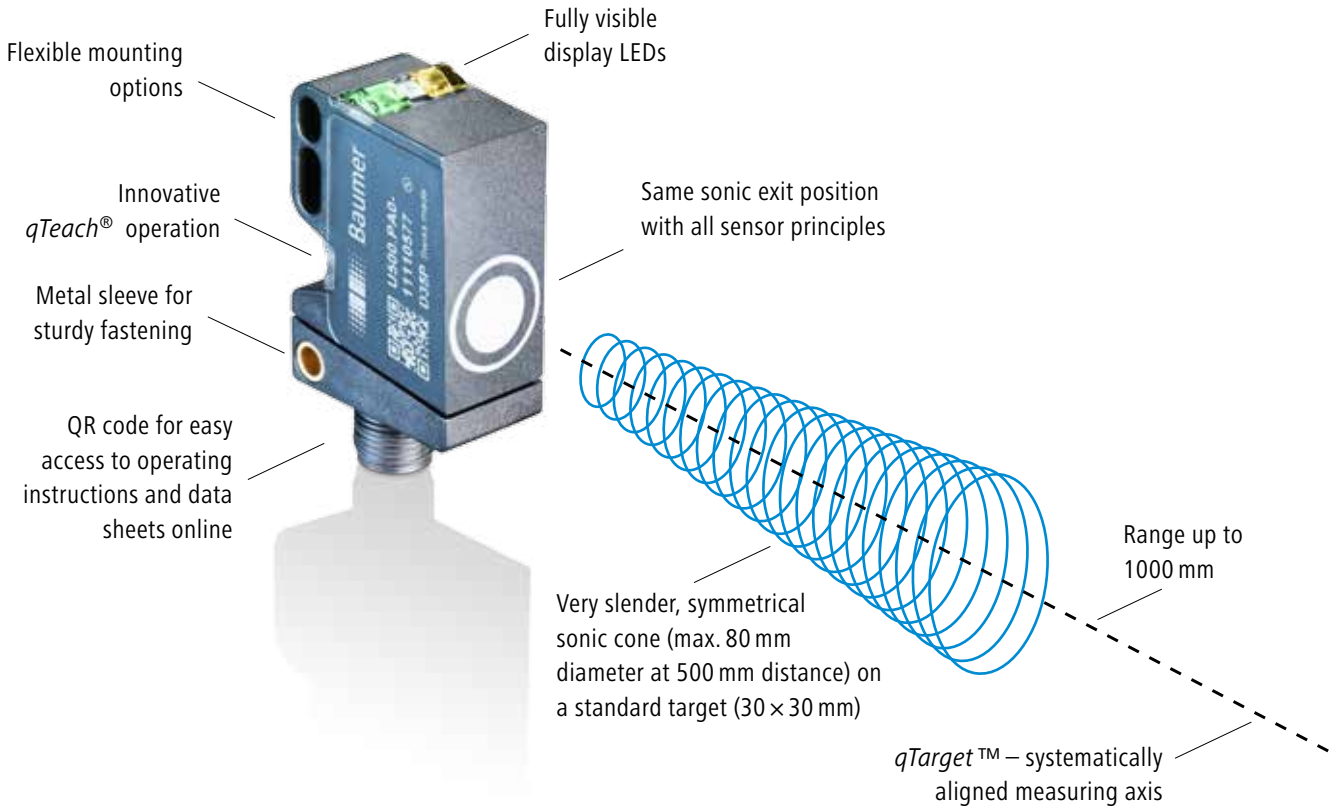
One design – two technologies

The story of the new performance category continues. With the U500 sensor, Baumer now expands the portfolio of *NextGen* sensors to include ultrasonic technology. The new sensors are identical in design and size to their series O500 photoelectric sensors counterparts.

The *OneBox Design* can accommodate every available sensor principle and offers the user maximum flexibility during the planning phase or later retrofit.

In addition to the U500 and O500, smaller-sized O300 completes Baumer's new performance category for applications with limited space.

U500 – a technology edge



Maximum reliability and ease of use, minimum total operating costs.

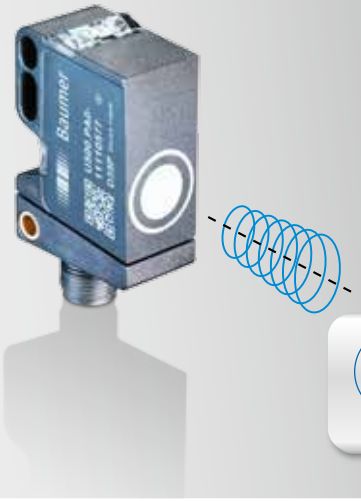
Baumer *OneBox Design* Planning flexibility

The *OneBox Design* represents a new Baumer housing concept. Within the series, Baumer *NextGen* sensors feature the same dimensions, through-holes and control elements for all sensor principles and technologies. This way, the user benefits from maximum flexibility in the planning stage.

OneBox Design

Baumer *qTarget* ™ Time savings during installation

Baumer designs the sonic exit position so that it is referenced to the mounting holes. This reduces individual part tolerances, providing the entire sensor series with a sonic cone that has consistent accuracy.



qTarget

Baumer *qTeach*® Easy-to-operate, safe and wear-free

With *qTeach*® Baumer launches a new convenient and wear-free Teach procedure. Teaching the sensors requires just a touch with any ferromagnetic tool. A blue LED light provides clear optical feedback. To prevent user errors, *qTeach*® locks autonomously after 5 minutes.

qTeach

Ultrasonic sensors – recognize solid or liquid media.

Ultrasonic sensors provide reliable information about the position of objects or fill levels. They accomplish this task independent of color or transparency of the object and are extremely insensitive to soiling. These sensors ensure maximum precision throughout the entire sensing range. Different sensor principles permit measurements in diverse environments in a wide variety of environments.

U500 – High performance in 3 sensor principles for many applications.

Proximity switch

Function:
Reliable object detection within the sensing range

Application area:
Object detection on conveyor belts or presence detection

Your benefit:
Wide application potential, independent of object characteristics or color

Distance measuring sensor

Function:
Detection of the distance between sensor and object

Application area:
Level measurement, identification of roller diameters and stacking heights

Your benefit:
Precise process control even in difficult environments and with irregular surface such as granules

Retro-reflective sensor

Function:
Detection of an object between sensor and reflector

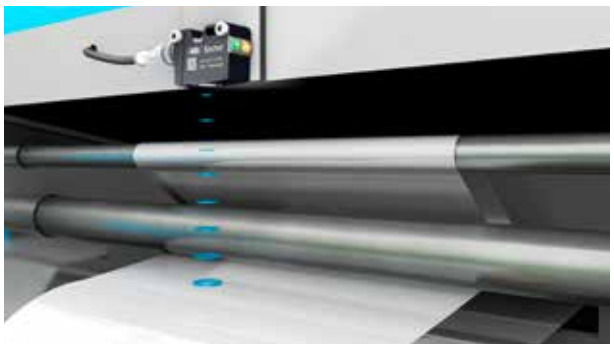
Application area:
For sound absorbing objects and objects with extremely irregular surface

Your benefit:
Reliable object detection without blind range

Universally applicable and extremely resilient.

Baumer U500 ultrasonic sensors deliver more.

Greatest sensing distance in its class.



Reliable and flexible in use

- Due to their measurement principle, ultrasonic sensors enable detection of transparent, high-gloss and multicolor objects
- Greatest range in its class (1000 mm) opens up new application potential
- Fast reaction time for more application flexibility
- Reliable operation thanks to enhanced interference immunity

A very slender sonic cone.

Liquid and solid media in every environment

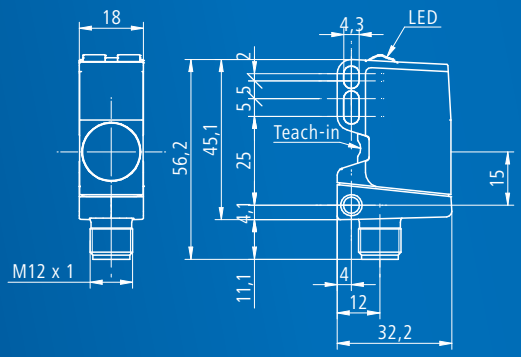
- The sensors are ideal for monitoring fill level of liquids, granules, and bulk material
- Slender, symmetrical sonic cone enables detection even in small container openings
- Fast cycle times in process applications are possible thanks to short response times

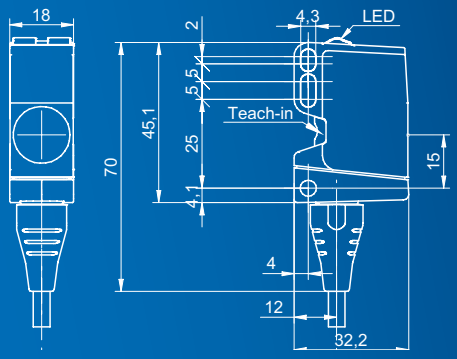
Extremely resilient transducer.

Long service life thanks to the robust design

- Resilient, even against mechanical impact
- The new transducer and robust housing make the U500 an extremely durable sensor (IP 67), which is unaffected by soiling, water droplets, or even chemical substances such as detergent, antifreeze or isopropyl alcohol

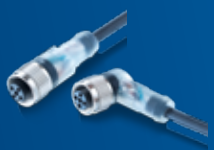
Product overview U500





Technology	Sensor principle	Range	Output function	Connection	Order code*
Ultrasonic	Proximity switch	100–1000 mm	Push-Pull	M12	U500.PA0-11110577
Ultrasonic	Proximity switch	100–1000 mm	Push-Pull	cable	U500.PA0-11120936
Ultrasonic	Retro-reflective sensor	0–1000 mm	Push-Pull	M12	U500.RA0-11110579
Ultrasonic	Retro-reflective sensor	0–1000 mm	Push-Pull	cable	U500.RA0-11127347
Ultrasonic	Distance measuring sensor	100–1000 mm	Electricity/Voltage	M12	U500.DA0-11110575
Ultrasonic	Distance measuring sensor	100–1000 mm	Electricity/Voltage	cable	U500.DA0-11127346

Accessories

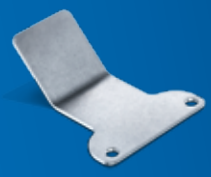


M12 connector straight (ESG) and angled (ESW)

Sensofix mounting bracket
Part no. 11099942

L-shaped mounting bracket
Part no. 11092246

Retrofit mounting bracket for UNDK 30
Part no. 11111164



Sonic deflection angle (only for U500)
Part no. 11111163

* Additional versions available. For installation and connection accessories go to: www.baumer.com/accessories

For more Information on our U500 series and the photoelectric *NextGen* sensors please visit:

www.baumer.com/U500 www.baumer.com/O500 www.baumer.com/O300

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

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