wenglor
the innovative family

Ultra-Small. Ultra-Smart. Ultrasonic.

Ultrasonic Sensors

Product Highlights of Ultrasonic Sensors

High Degree of Protection

- Models with sturdy plastic housings
- Robust models with stainless steel 316L and IP69K degree of protection for use in washdown and hygienic environments

Wide Temperature Range

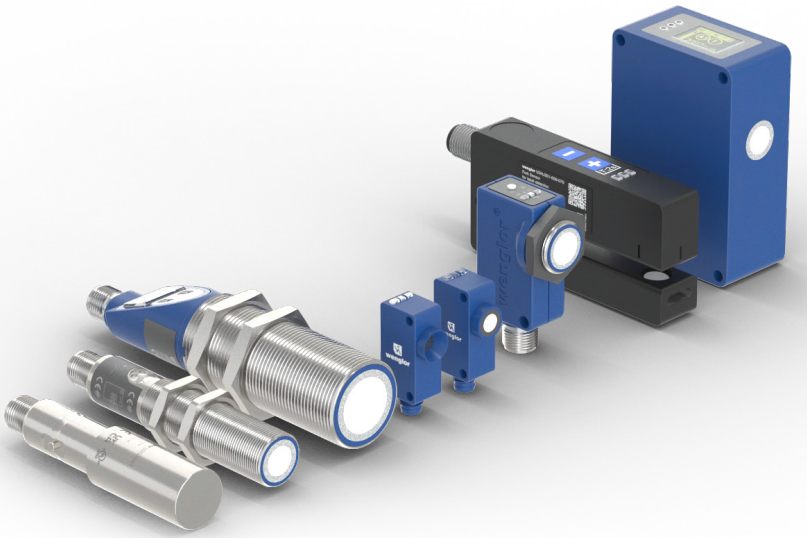
- Reliable in cold temperatures (down to –30 °C) and hot temperatures (up to +60 °C)
- Suitable for use in the deep-freeze area

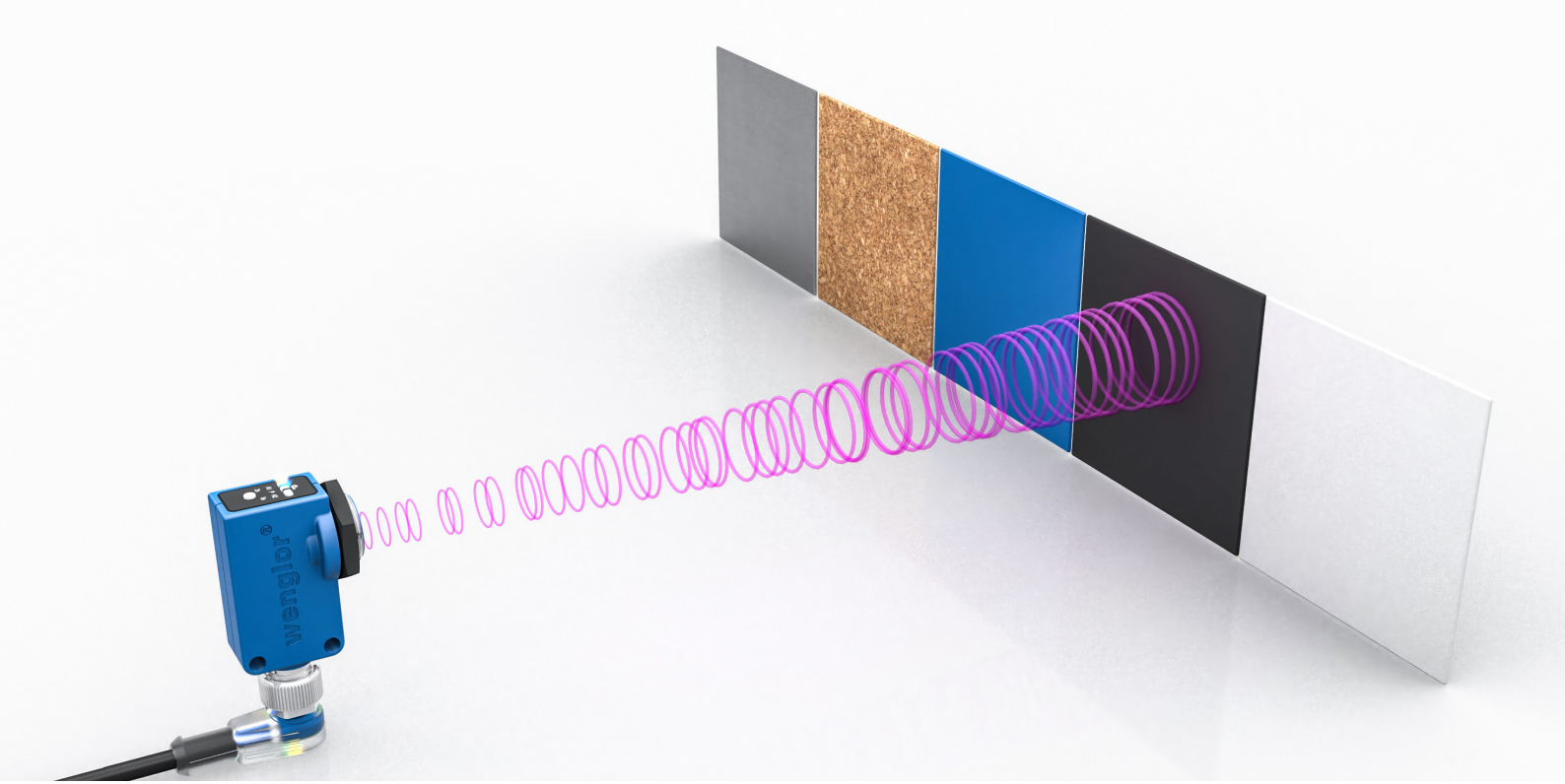
High Flexibility and Functionality

- Reflex, barrier, multiplex and synchronous operation possible depending on the sensor variant
- Object detection regardless of material, color and physical state
- Metric and cubic designs available

Strong Performance

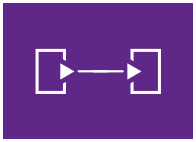
- Constant measurement results thanks to integrated temperature compensation
- Insensitive to contamination, mist and dust





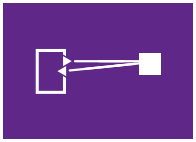
Overview of Operating Modes

Ultrasonic sensors from wenglor are ideally suited for the detection of transparent, glossy and dark objects, reflective surfaces and all kinds of material. A wide range of applications can be reliably solved thanks to different operating modes.



Through-Beam Sensors

- Ultrasonic sensors are positioned opposite each other as emitters and receivers
- Offer very long ranges



Reflex Sensors

- Emitter and receiver are enclosed in a single housing
- Suitable for distance measurement, detection and measurement of objects

Synchronous Mode

- Ultrasonic sensors emit their ultrasonic pulses simultaneously (synchronously)
- Detection of one or more objects in a larger area

Multiplex Mode

- Ultrasonic sensors alternately emit pulses which do not affect each other
- Suitable for multiple, independent measurements in tight spaces

Wide Range of Uses

Presence check

Film tear monitoring

Fill level monitoring

Sag detection

Robot positioning

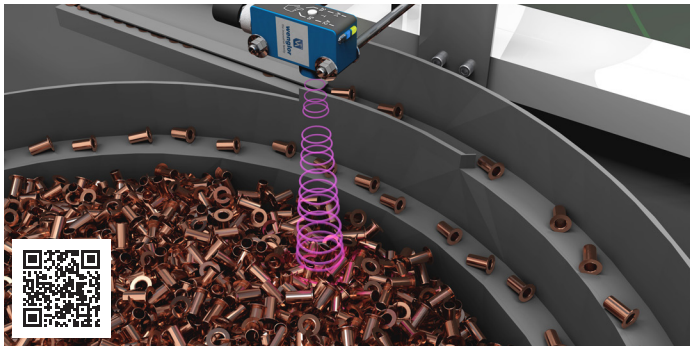
Stacking height monitoring

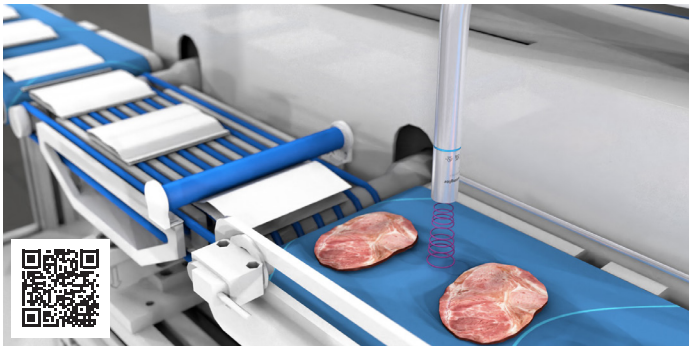
Label detection

End position control

Fill Level Monitoring in Vibrating Spiral Conveyors

To reliably replenish the supply of screws, rivets or bolts in vibrating spiral conveyors, the fill level must be constantly monitored. Due to the vibration of the container, the objects are transported away via a spiral so that the container is emptied. The fill level is monitored by an ultrasonic distance sensor with IO-Link.



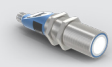
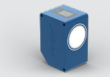


Detection of Food on Conveyor Belts

When packaging foods, the objects portioned into slices are transported on conveyor belts and first wrapped in paper. To ensure that the paper is placed at the right moment, an ultrasonic sensor must first reliably detect the incoming food despite different colors, shapes and surfaces.

You can find all the details and even more about ultrasonic applications on our website.

Product Overview

Product		Format	Working range in reflex mode	Working range in through-beam mode	Interface
	U1KT	32 × 16 × 12 mm	30...400 mm	30...800 mm	IO-Link
	U1KM	12 × 32 × 16 mm	200...3,000 mm	–	IO-Link
	U1RT	56.5 × 26 × 24 mm / M18	100...1,200 mm 80...400 mm	100...2,000 mm	IO-Link, NFC
	U2GT	D20	50...600 mm 150...1,300 mm	50...1,200 mm 150...2,600 mm	IO-Link
	U18T	M18	50...600 mm 100...1,200 mm	50...1,200 mm 100...2,400 mm	IO-Link
	UMF	M30	50...400 mm 200...3,000 mm	–	IO-Link
	U30T	M30	100...1,900 mm	100...3,800 mm	IO-Link
	UMS	81 × 55 × 30 / 47 mm	100...1,200 mm 200...3,000 mm 300...6,000 mm	–	IO-Link
	U3H	54 × 90 × 20 mm	Fork width: 3 mm		–

	Z1KG001 soundpipe for narrowing the sonic cone of the U1KT

You can find all the details about the ultrasonic portfolio on our website.

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