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Ultrasonic Sensors

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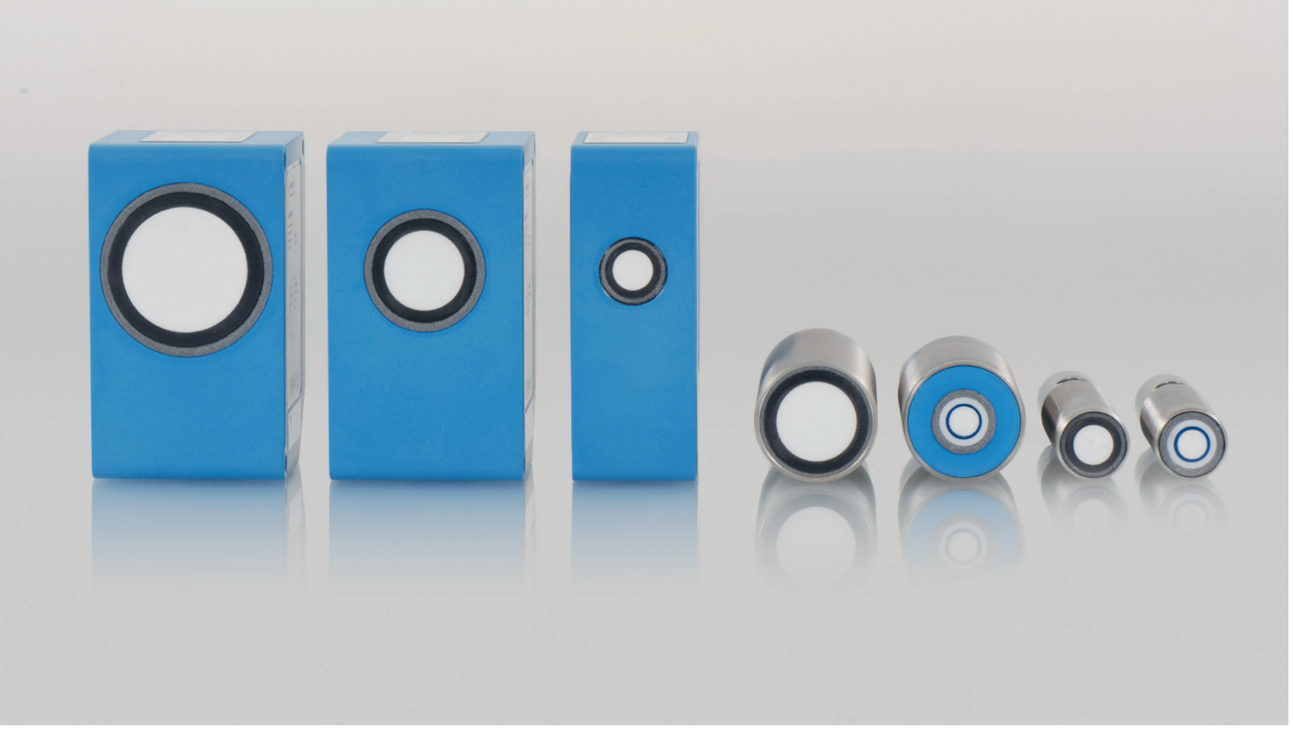


Ultrasonic Sensors

The powerful ultrasonic sensors by wenglor provide reliable detection of objects – independent from material, color, transparency, and surface characteristics. Artificial light or particles in the air (dust, smoke, steam, lint, oily air) do not influence the correct sensor function.

Advantages

- Easy setting directly on the sensor without requiring additional programming devices
- IO-link interface
- Filter for reduction of perturbations
- Temperature compensation to compensate variations in temperature
- Housings are robust and resistant to cleaning agents
- Adjustable switching point and window
- Adjustable sonic cone

Functions

- **Synchronous mode:** In order to enable object recognition over a wide area, several ultrasonic sensors can be operated in immediate vicinity to each other and send out ultrasonic pulses simultaneously.
- **Multiplex mode:** To avoid interference of several sensors mounted in immediate vicinity to each other, the sensors send their ultrasonic pulses alternately.
- **Detection mode:** This feature is particularly helpful in the case of interfering objects influencing the measurement result. The ultrasonic sensor determines three objects: The object closet to the sensor, the object furthest away and the best detectable object. Depending on the application, a selection can be made from these three signals.
- **Adjusting the threshold value:** The higher the chosen threshold, the less sensitive the sensor is to interfering sound waves. This function can be combined with detection mode.

Application examples:

- Fill level measurement (min./max.)
- Distance monitoring
- Analysis of bulk solids
- Quality testing
- Level control
- Sag control of films and paper
- Detection of dark, light-absorbing material
- Detection of pierced circuit boards
- Wire break monitoring
- Detection of seals and packaging

Order number	UMD402U035	UMD123U035	UMF402U035	UMF303U035
Working range	50…400 mm	100…1200 mm	50…400 mm	200…3000 mm
Supply voltage	Analog output: 18...30 VDC		Analog output: 18...30 VDC	
Switching frequency	20 Hz	7 Hz	20 Hz	3 Hz
Temperature range	–25…60 °C		–25…60 °C	
Switching outputs	1		1	
Analog output	0…10V		Analog output (0...10 V/4...20 mA)	
Housing material	Stainless steel		Stainless steel	
Degree of protection	IP67		IP67	

Design M18×1: UMD

- Synchronous mode
- Control panel
- Stainless steel housing

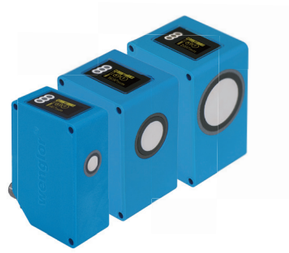
Design M30×1.5: UMF

- Synchronous mode
- Multiplex mode
- Four-digit 7-segment display
- Stainless steel housing

Design 81×55×30/47 mm: UMS

- Synchronous mode
- Multiplex mode
- Adjusting the threshold value
- Detection mode
- Graphic display
- On- and off-delay of up to 10 seconds
- Pulse duration of up to 10 seconds

Order number	UMS123U035	UMS303U035	UMS603U035
Working range	100…1200 mm	200…3000 mm	300…6000 mm
Supply voltage	Analog output: 18...30 VDC		
Switching frequency	7 Hz	3 Hz	1.5 Hz
Temperature range	–25…60 °C		
Switching outputs	2		
Analog output	Analog output (0...10 V/4...20 mA)		
Housing material	Plastic		
Degree of protection	IP67		
Design	81×55×30 mm	81×55×47 mm	81×55×47 mm



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