

Ultrasonic transducer emits an ultrasonic signal which is reflected back by the target towards the sensor. The trigger circuit measures the time between the emission and the detection of the signal. Since the speed of the ultrasonic beam in air is known, it is easy to have an indication of the presence of the target, as well as a measure of the distance between sensor and target.

A Teach-in button is used to set working distance, output status (NO/NC) and slope of analog output and to change the function. All models are temperature compensated to ensure reliability throughout the entire detection range and are totally resin filled for applications subject to vibration offering an IP67 protection degree.

- Ultrasonic sensors** IP67 (EN60529)
- Sensitivity: Adjustable (via external Teach-in)
 - Ambient limits: -20 ... +70°C
 - Supply protection: Polarity reversal, transient, short circuit
 - LED indication: Orange (output/regulation), green (echo reception)
 - Housing material: PBT plastic (AISI 316L stainless steel available on request only)



type	supply voltage	sensing distance (mm)	description	NPN	PNP	NO	NC	0...10V	4...20mA	connector
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M18 UQ1 series - Cubic ultrasonic sensor with head (H) 53 x (W) 20 x (D) 38 mm

Analog + Digital NO/NC output			M12 (4pin) plug connection					
UQ1A/G6-0E	10 - 30 VDC	40...300	ultrasonic sensor	•	•	•	•	M12 plug
UQ1C/G6-0E	10 - 30 VDC	60...800	ultrasonic sensor	•	•	•	•	M12 plug
UQ1D/G6-0E	10 - 30 VDC	80...1.200	ultrasonic sensor	•	•	•	•	M12 plug
UQ1A/G7-0E	10 - 30 VDC	40...300	ultrasonic sensor	•	•	•	•	M12 plug
UQ1C/G7-0E	10 - 30 VDC	60...800	ultrasonic sensor	•	•	•	•	M12 plug
UQ1D/G7-0E	10 - 30 VDC	80...1.200	ultrasonic sensor	•	•	•	•	M12 plug

M18 UK6 series - Cylindrical ultrasonic sensors

UK6 series - M18 short body			M12 (4pin) plug connection			M18 x 60.3 mm		
Digital NO/NC output								
UK6A/HP-0EUL	10 - 30 VDC	40...300	ultrasonic sensor	•	•	•	•	M12 plug
UK6C/HP-0EUL	10 - 30 VDC	60...800	ultrasonic sensor	•	•	•	•	M12 plug
UK6D/HP-0EUL	10 - 30 VDC	80...1.200	ultrasonic sensor	•	•	•	•	M12 plug
Analog output								
UK6A/H1-0EUL	10 - 30 VDC	40...300	ultrasonic sensor				•	M12 plug
UK6C/H1-0EUL	10 - 30 VDC	60...800	ultrasonic sensor				•	M12 plug
UK6D/H1-0EUL	10 - 30 VDC	80...1.200	ultrasonic sensor				•	M12 plug
UK6A/H2-0EUL	10 - 30 VDC	40...300	ultrasonic sensor				•	M12 plug
UK6C/H2-0EUL	10 - 30 VDC	60...800	ultrasonic sensor				•	M12 plug
UK6D/H2-0EUL	10 - 30 VDC	80...1.200	ultrasonic sensor				•	M12 plug

UK1 series - M18 standard body			M12 (4pin) plug connection			M18 x 91.6 mm		
Analog + Digital NO/NC output								
UK1D/G6-0ESY	10 - 30 VDC	150...1.600	ultrasonic sensor	•	•	•	•	M12 plug
UK1D/G7-0ESY	10 - 30 VDC	150...1.600	ultrasonic sensor	•	•	•	•	M12 plug
UK1F/G6-0ESY	10 - 30 VDC	200...2.200	ultrasonic sensor	•	•	•	•	M12 plug
UK1F/G7-0ESY	10 - 30 VDC	200...2.200	ultrasonic sensor	•	•	•	•	M12 plug

M30 UT series - Standard body (with larger heads for longer distance sensing) M30 x 99 mm

- M30 - standard body **UT1** or with larger head - **UT2** (38.8 mm) **UT5** (61 mm)
- Synchronism - up to 10 sensors connected on the same SYNC wire

Analog + Digital NO/NC output			M12 (5pin) plug connection					
UT1B/G6-0ESY	10 - 30 VDC	250...3.500	ultrasonic sensor	•	•	•	•	M12 plug
UT1B/G7-0ESY	10 - 30 VDC	250...3.500	ultrasonic sensor	•	•	•	•	M12 plug
UT2F/G6-0ESY	10 - 30 VDC	350...6.000	ultrasonic sensor	•	•	•	•	M12 plug
UT2F/G7-0ESY	10 - 30 VDC	350...6.000	ultrasonic sensor	•	•	•	•	M12 plug
UT5L/G6-1ESY	10 - 30 VDC	600...8.000	ultrasonic sensor	•	•	•	•	M12 plug
UT5L/G7-1ESY	10 - 30 VDC	600...8.000	ultrasonic sensor	•	•	•	•	M12 plug

Mounting accessories (see page K-8) Cables and M8/12 connectors (see page K-27 / 28)