### UT180126

ultrasonic sensors



Ultrasonic sensors are non-contact and wear-free position switches which can also be used under rough environmental conditions. A key advantage of these devices lies in the fact that the material and the surface characteristics of the objects to be detected can be almost anything. Solids, liquids, grainy materials and powdery materials can be identified without the shape or the color of the object having any influence to the measured result. In addition, the ability to detect transparent materials such as films and fluids is of particular importance. The shape and color of the objects do not influence the result of the detection. The capability to detect transparent films or liquids is also of special importance. Ultrasonic sensors are used for distance measurement (e.g. detection of diameters, loop control), for fill level detection (e.g. silo detection), for positioning and presence de



tection (e.g. silo detection), for positioning and presence detection (e.g. glass pane positioning, film tear check, glass bottle detection)

#### **TECHNICAL DATA**

Dead zone	60 mm
Ambient temperature (min/max)	-15 °C / 70 °C
Degree of protection (IP)	IP67
Diameter detection	YES
Furcate	NO
Housing design	Cylinder, screw-thread
Housing material	Plastic
Housing material, detail	Plastic
Sensor length	92 mm
Thread length	65 mm
Thread pitch	1 mm
Thread size, metric	18
Adjustable measuring range	YES
Carrier frequency	330 kHz
Combined switching and analog outputs	NO
Distance measuring sensors	NO
Filling level measurement	NO
Hysteresis	2.5 %
Max. output current	500 mA
Measuring range length (min/max)	60 mm / 300 mm
No-load current	35 mA
Number of switching outputs	1
Relative repeat accuracy	0.2 %
Reverse polarity protection	YES
Sensing range (min/max)	60 mm / 300 mm
Setting procedure	Manual adjustment
Setting via teach-in	NO
Short-circuit-proof	YES
Sound cone (angle of beam spread)	8 °

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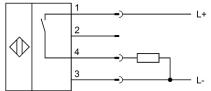
## ultrasonic sensors



#### **TECHNICAL DATA**

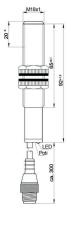
Sound cone with small angle of beam spread	YES
Sound outlet	Axial
Supply voltage (min/max)	19 V / 30 V
Switching frequency	20 Hz
Switching output with window function	NO
Synchronization input	YES
Synchronization possible	YES
Type of electrical connection	Connector M12
Type of switching function	Normally open contact (NO)
Type of switching output	PNP
Voltage type	DC
With LED display	YES
Level detection	YES
Loop control	NO
Object detection on conveyor systems	YES
With protective coating	NO
High resolution	YES

#### CONNECTION



**Colors:** 1 = BN (brown), 2 = WH (white), 3 = BU (blue), 4 = BK (black) **Functions:** 1 = L+, 2 = n. c., 3 = L-, 4 = pnp no

#### DIMENSIONAL DRAWING



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