

**UT990905****ULTRASONIC SENSORS • DIFFUSE REFLECTIONS 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 detection (e.g. glass pane positioning, film tear check, glass bottle detection)

**MECHANICAL DATA**

Ambient temperature	0 °C ... 50 °C
Cable length	2 m
Degree of protection (IP)	IP65
Housing design	Cylinder, screw-thread
Housing material	Plastic
Number of wires	4
Sensor length	76 mm
Thread length	49.5 mm
Thread pitch	1 mm
Thread size, metric	18

**ELECTRICAL DATA**

Adjustable distance	40 mm ... 150 mm
Adjustable measuring range	Yes
Carrier frequency	300 kHz
Combined switching and analog outputs	Yes
Distance measuring sensors	Yes
Measuring range length	40 mm ... 150 mm
No-load current	20 mA
Relative repeat accuracy	0.15 %
Response time	50 ms
Sensing range	40 mm ... 150 mm
Sound cone (angle of beam spread)	8 °
Sound outlet	Axial
Supply voltage	19 V ... 30 V
Synchronization input	Yes
Synchronization possible	Yes
Type of analog output	Other

**ELECTRICAL DATA**

Type of electrical connection	Cable
Voltage type	DC
With LED display	Yes

**OTHER DATA**

Dead zone	40 mm
Level detection	Yes
Loop control	Yes
Object detection on conveyor systems	Yes
Relative linearity deviation	0.2 %

**DIMENSIONAL DRAWING****INSTALLATION**

Mounting / Installation may only be carried out by a qualified electrician!

**DISPOSAL****SAFETY WARNINGS**

Before initial operation, please make sure to follow all safety instructions that may be provided in the product information!