

## UR98A144

### ULTRASONIC SENSORS • RETRO-REFLECTIVE 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 ... 60 °C
Degree of protection (IP)	IP67
Diameter detection	Yes
Housing design	Cuboid
Housing material	Plastic
Housing material, detail	Plastic (polyester)
Sensor height	30 mm
Sensor length	31 mm
Sensor width	65 mm

#### ELECTRICAL DATA

Carrier frequency	230 kHz
Max. output current	200 mA
Measuring range length	0 mm ... 700 mm
No-load current	30 mA
Relative repeat accuracy	0.43 %
Residual ripple	10 %
Response time	50 ms
Response/decay time	50 ms
Setting procedure	Manual adjustment
Sound cone (angle of beam spread)	10 °
Sound outlet	Lateral
Supply voltage	15 V ... 30 V
Synchronization input	Yes
Temperature drift	1 %
Type of electrical connection	Connector M12
Type of switching function	Normally open contact (NO)
Type of switching output	PNP

**ELECTRICAL DATA**

Voltage drop	2 V
Voltage type	DC
With LED display	Yes

**OTHER DATA**

Object detection on conveyor systems	Yes
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**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!