IPF ELECTRONIC

DATA SHEET **UT210070** • Subject to alteration! Version: 03.05.2019

UT210070

ULTRASONIC SENSORS • DISTANCE MEASUREMENT

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	-10 °C ... 60 °C
Degree of protection (IP)	IP67
Diameter detection	Yes
Housing design	Cuboid
Housing material	Plastic
Housing material, detail	Plastic (polyester)
Sensor height	15 mm
Sensor length	15 mm
Sensor width	20 mm

ELECTRICAL DATA

Adjustable distance (MIN)	5 mm
Adjustable measuring range	Yes
Carrier frequency	380 kHz
Distance measuring sensors	Yes
Filling level measurement	Yes
Load resistance (current output)	1.1 kOhm
Measuring range length	20 mm ... 200 mm
No-load current	35 mA
Number of pins	4
Relative repeat accuracy	0.1 %
Residual ripple	10 %
Response/decay time	30 ms
Reverse polarity protection	Yes
Setting procedure	Teach-In
Setting via teach-in	Yes
Short-circuit-proof	Yes
Sound cone (angle of beam spread)	6 °

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ELECTRICAL DATA

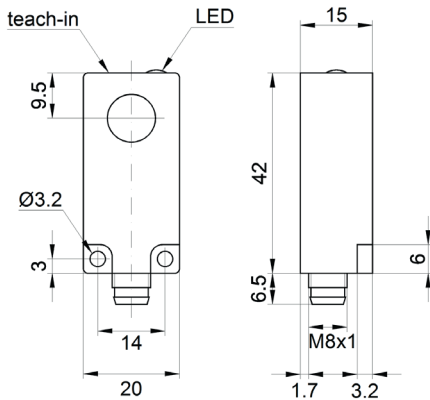|	
Sound cone with small angle of beam spread	Yes
Sound outlet	Lateral
Supply voltage	15 V ... 30 V
Synchronization possible	No
Temperature drift	2 %
Type of analog output	4 mA ... 20 mA
Type of electrical connection	Connector M8
Voltage type	DC
With LED display (measuring range)	Yes

OPTICAL DATA

High resolution	Yes
Resolution	0.3 mm

OTHER DATA

Level detection	Yes

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!

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