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 ° |

Tel +49 2351 9365-0 Fax +49 2351 9365-19

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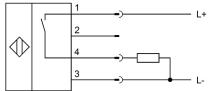
ultrasonic sensors



TECHNICAL DATA

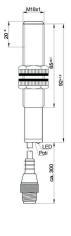
| Sound cone with small angle of beam spread | YES |
|--|----------------------------|
| Sound outlet | Axial |
| Supply voltage (min/max) | 19 V / 30 V |
| Switching frequency | 20 Hz |
| Switching output with window function | NO |
| Synchronization input | YES |
| Synchronization possible | YES |
| 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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