

## UT180321

### Ultrasonic sensors • Pushbuttons

sensor ultrasonic, diffuse-reflection sensor, M18x1 104long, Sn: 100-800, 12-30V DC, 2x PNP Programmable/configurable, Connector M12 5pin, IP67, Plastic, Teach-In, With LED display, ultrasonic cone Axial



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)

#### Electrical features

Number of switching outputs	2
Display	LED display
Resolution	1mm
Type of switching function	Programmable/configurable
Type of electrical connection	Connector M12
Type of switching output	PNP
Rated switching current	500mA
Setting procedure	Teach-In
Relative hysteresis	1%
Short-circuit protection	Yes
No-load current	60mA
Number of pins	5
Relative repeat accuracy	0.13%
Sound outlet	axial
Switching distance	100 - 800mm
Switching frequency	10Hz
Carrier frequency	300kHz
Reverse polarity protection	Yes
Operating voltage (DC)	12 - 30V

**Mechanical features**

Design	Cylinder, screw-thread
Thread length	65mm
Thread pitch	1mm
Length	104mm
Degree of protection (IP)	IP67
Housing material	Plastic
Diameter detection	Yes
Thread dimension	M18
Ambient temperature	-20 - 70°C

**Optical features**

Angle of beam spread	8°
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**Other features**

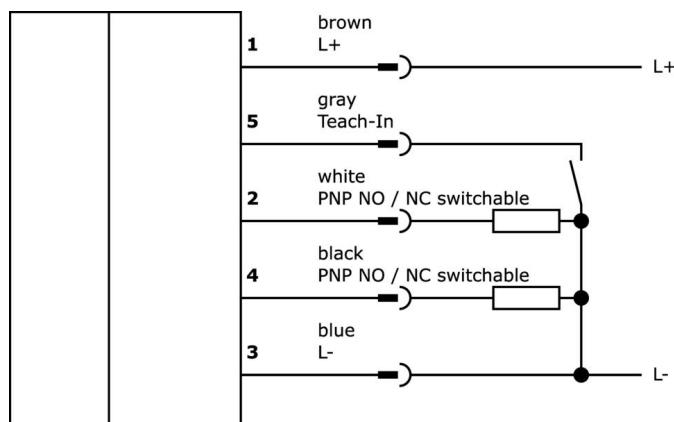
Operating frequency	300kHz
Level detection	Yes
Object detection on conveyor systems	Yes
Ambient temperature	-20 - 70°C

**Classification**

ETIM 8	EC001849 Ultrasonic probe
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**More**

IPF Product Group	250 ultrasonic sensors
packaging dimensions	165 x 110 x 55 mm
gross weight	91 g
Customs tariff number	85365019
WEEE number	40951076
OzDS-compliant	Yes
POP-compliant	Yes
Reach-compliant	Yes
RoHS-compliant	Yes

**Connection**

**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.

Never use these devices in applications where the safety of a person depends on their functionality.

For suitable connection and mounting accessories, please refer to our website [www.ipf-electronic.com](http://www.ipf-electronic.com).

**Dimensional drawing**