

## UT18002F

### Ultrasonic sensors • Distance measurement

Ultrasonic sensor, diffuse reflection sensor, M18x1 100long, Sn: 80-1600, 15-30V DC, 4-20mA, M12 plug-in connector 5-pin, IP65, plastic, teach-in, LED, sound 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

Response/decay time	140 ms
Display	LED display
Resolution	1 mm
Type of analog output	4 - 20mA
Type of electrical connection	Connector M12
Setting procedure	Teach-In
Short-circuit protection	Yes
No-load current	30 mA
Number of pins	5
Relative linearity deviation	0.5 %
Relative repeat accuracy	0.4 %
Sound outlet	axial
Protection class	III
Carrier frequency	220 kHz
Reverse polarity protection	Yes
Operating voltage (DC)	15 - 30 V
Measuring range	80 - 1600 mm

**Mechanical features**

Design	Cylinder, screw-thread
Thread length	65 mm
Thread pitch	1 mm
Length	100 mm
Degree of protection (IP)	IP65
Housing material	Plastic
Diameter detection	Yes
Thread dimension	M18
Ambient temperature	-20 - 70 °C

**Optical features**

Angle of beam spread	8 °
----------------------	-----

**Other features**

Operating frequency	220 kHz
ardTE00_Anwendungen	Niveauabfrage

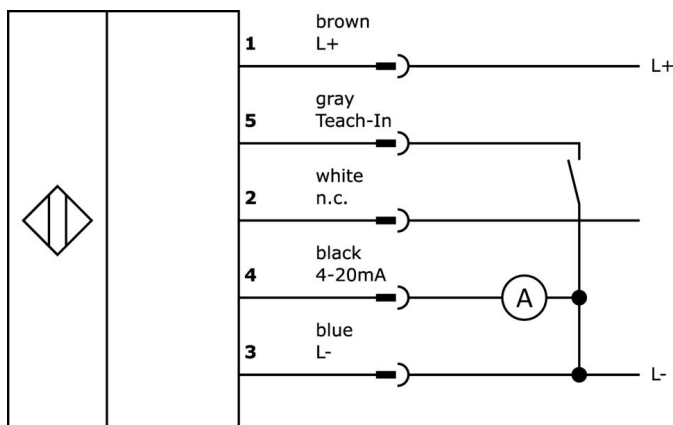
**Classification**

ETIM 8	EC001846 Ultrasonic distance sensor
--------	-------------------------------------

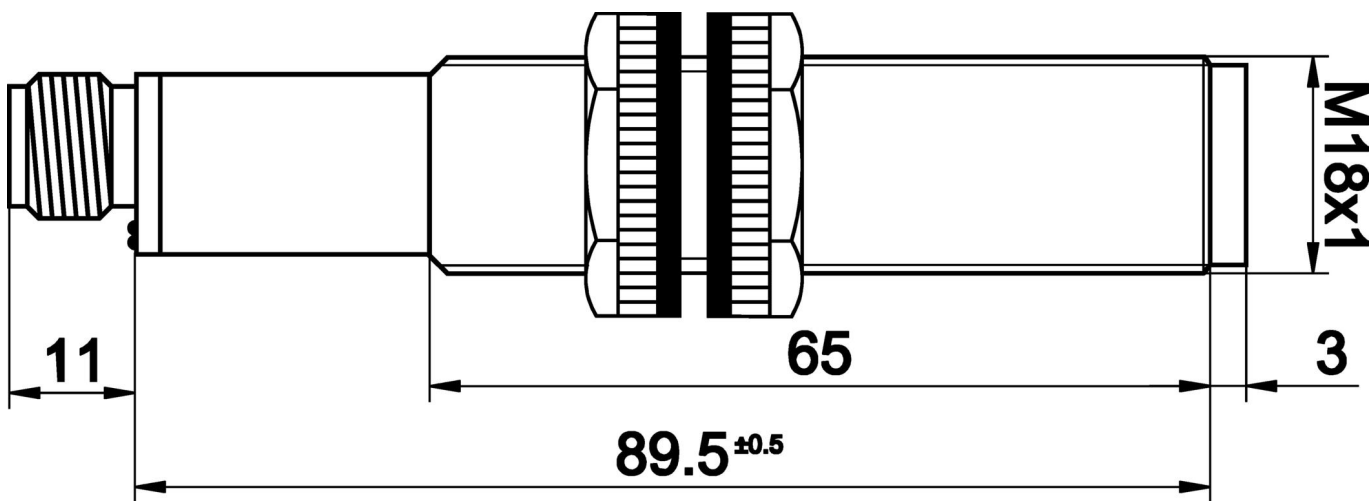
**More**

IPF Product Group	259 ultrasonic sensors (analog)
packaging dimensions	165 x 105 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**



**Dimensional drawing**



**Extract accessories program**

**NG530002**



DC power supply, single-phase, 99x114x22mm, 24V, 0.1A, Number of relay outputs 2, 100-264V AC 50Hz, 100-264V AC 60Hz, Screw connection, IP20, Plastic, Stabilized, Output voltage, pulsed

**AU000001**



accessories ultrasonic, Deflection bracket, 50x105mm, Deflection bracket, Steel, 90°

**AU000002**



accessories ultrasonic, Deflection bracket, 50x105mm, Deflection bracket, Steel, 90°

**AU000013**



accessories, ultrasonic, cable, 0.3m, M12 socket 5p pole straight, M12-connector 5 pole straight, PUR (Polyurethane)

**VK205621**



Connection cable, 2m, M12 Female (socket) 5pin Angular, Free conductor end, 5x0.34mm<sup>2</sup>, PUR (Polyurethane), Ø6mm, 60V, -25-90°C, IP67, Shielded, Suitable for trailing chain and torsion resistant, Oil and cooling lubricants, Welding area, Silicone-free

**VK205625**



Connection cable, 2m, M12 Female (socket) 5pin Straight, Free conductor end, 5x0.34mm<sup>2</sup>, PUR (Polyurethane), Ø6mm, 60V, -25-90°C, IP67, Shielded, Suitable for trailing chain and torsion resistant, Oil and cooling lubricants, Welding area, Silicone-...

**AY000014**



accessories sensor, Reduction sleeve, M18, Plastic

**AY000162**



Accessories, magnetic, Ø43mm, neodymium-iron-boron, inside thread M5, rubber

**AY000159**



accessories sensor, Mounting pipe, Ø12mm 200long, Aluminum Anodised

You can find further accessories on our homepage



**Installation**

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



**Disposal**

WEEE number according to § 6 para. 3 ElektroG: 40951076

---

**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.