

UT180021

Ultrasonic sensors • Distance measurement

Ultrasonic sensor, diffuse reflection sensor, M18x1 104lang, Sn: 100-800, 15-30V DC, 4-20mA, M12 plug-in connector 5-pin, IP67, plastic, teach-in, LED, sound cone axial



Ultrasonic sensors are contactless and wear-free position switches that can also be used in harsh environmental conditions. A major advantage of these devices is that the material and surface properties of the objects to be detected can be almost any. Solid, liquid, granular and powdery materials can be recognized. The shape and color of the objects have no influence on the detection result. The ability to detect transparent materials such as foils or liquids is also of particular importance. Ultrasonic sensors are used for distance measurement (e.g. diameter detection, loop control), level or filling height control (e.g. silo detection), positioning and presence detection (e.g. glass pane positioning, film tear control, glass bottle detection).

Electrical features

Response/decay time	100 ms
Display	LED display
Resolution	0.25 mm
Type of analog output	4 - 20mA
Type of electrical connection	Connector M12
Setting procedure	Teach-In
No-load current	30 mA
Number of pins	5
Relative linearity deviation	0.5 %
Relative repeat accuracy	0.2 %
Sound outlet	axial
Protection class	III
Carrier frequency	300 kHz
Operating voltage (DC)	15 - 30 V
Measuring range	100 - 800 mm
ardTEEL_Schutzfunktionen	Verpolungsschutz Kurzschlusschutz

Mechanical features

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

Optical features

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

Other features

Operating frequency	300 kHz
ardTE00_Anwendungen	Niveauabfrage

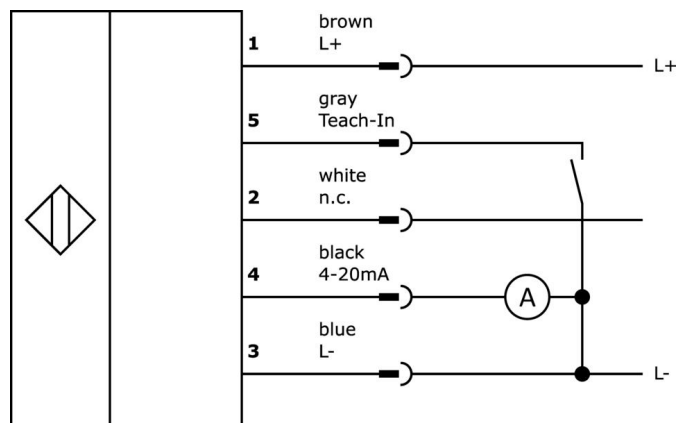
Classification

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

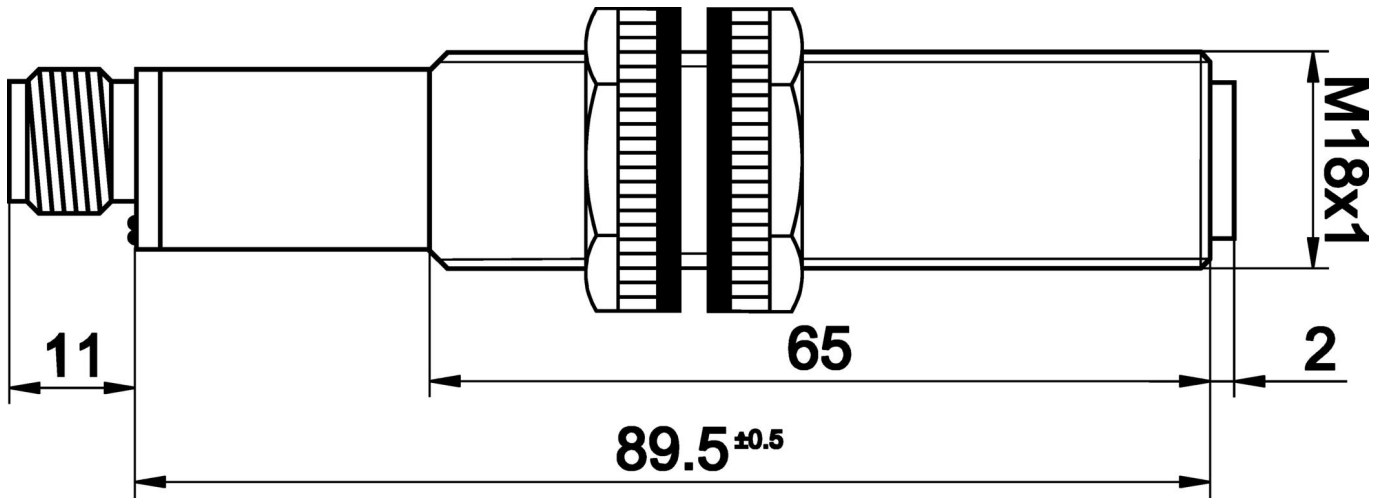
More

IPF Product Group	259 ultrasonic sensors (analog)
packaging dimensions	123 x 77 x 25 mm
gross weight	60 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

AY000162



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

AY000159



Accessories sensor, mounting tube, Ø12mm 200long, aluminum anodized/anodized

VK003021



Cable socket, Angular, Suitable for self-assembly, Screw connection, Ø3-6.5mm, 4A, 60V, -25-90°C, M12 Female (socket) 5pin, IP67, PBT

VK003025



Cable socket, Straight, Suitable for self-assembly, Screw connection, Ø3-6.5mm, 4A, 60V, -25-90°C, M12 Female (socket) 5pin, IP67, PBT

VK205621



Connection cable, 2m, M12 Female (socket) 5pin Angular, Free conductor end, 5x0.34mm², 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, 5x0.34mm², 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

AU000013



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

AU000001



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

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.