

## UT129020

### Ultrasonic sensors • Distance measurement

sensor ultrasonic, diffuse-reflection sensor, M12x1 65long, Sn: 20-200, 18-30V DC, 0-10V/4-20mA, IO-Link, 4pin, IP67, Brass Nickel-plated, Teach-In, With LED display, ultrasonic cone Axial

including Nut



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**

Display	LED display
Resolution	1 mm
Type of analog output	0 - 10V   4 - 20mA
Rated switching current	150 mA
Readiness delay	300 ms
Setting procedure	Teach-In
Short-circuit protection	Yes
Load resistance (voltage output)	10 kOhm
Load resistance (current output)	0.4 kOhm
No-load current	40 mA
Number of pins	4
Relative linearity deviation	0.4 %
Sound outlet	axial
Switching distance	20 - 200 mm
Switching frequency	20 Hz
Protection class	III
Temperature drift over entire measuring range	0.2 %
Carrier frequency	400 kHz
Reverse polarity protection	Yes
Absolute repeat accuracy	0.5 mm
Supported communication interface	IO-Link
Operating voltage (DC)	18 - 30 V
Multiplex connection (switchover by means of IO-Link)	Yes
Switching output (switchover by means of IO-Link)	Yes
Synchronization connection (switchover by means of IO-Link)	Yes
Teach input (switchover by means of IO-Link)	Yes

**Mechanical features**

Design	Cylinder, screw-thread
Thread length	41.5 mm
Thread pitch	1 mm
Length	65 mm
Mounting distance	60 mm
Surface	nickel-plated
Degree of protection (IP)	IP67
Housing material	Brass
Diameter detection	Yes
Thread dimension	M12
Ambient temperature	-25 - 70 °C

**Other features**

Operating frequency	400 kHz
Object detection on conveyor systems	Yes
Reference medium / object	Measuring plate 20x20mm
ardTE00_Anwendungen	Niveauabfrage

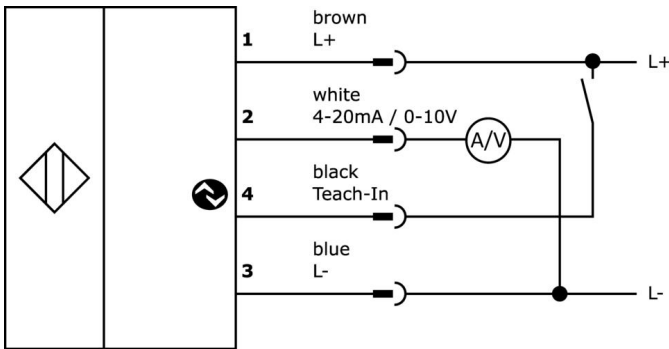
**Classification**

ETIM 8	EC001849 Ultrasonic probe
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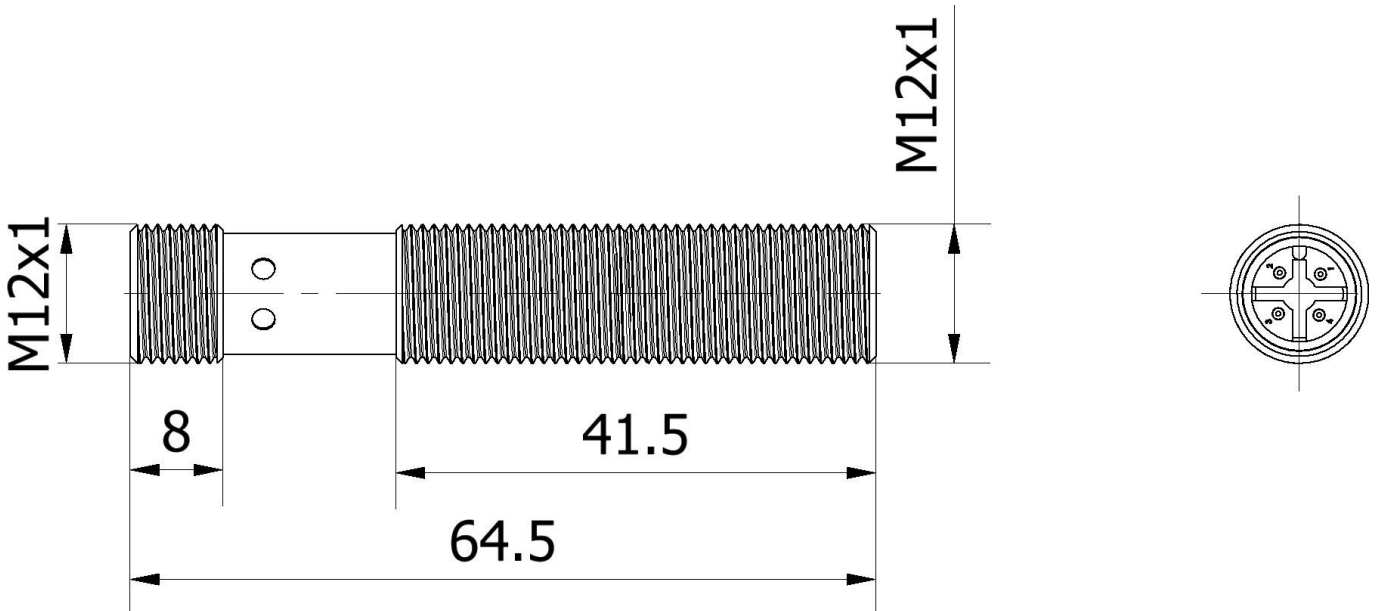
**More**

IPF Product Group	259 ultrasonic sensors (analog)
packaging dimensions	155 x 175 x 13 mm
gross weight	41 g
Customs tariff number	85365019
WEEE number	40951076
Reach-compliant	Yes
RoHS-compliant	Yes

**Connection**



**Dimensional drawing**



**Extract accessories program**

**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...

**VK205321**



Connection cable, 2m, M12  
Female (socket) 4pin Angular, Free conductor end, 4x0.34mm<sup>2</sup>, PUR (Polyurethane), Ø5.5mm, 250V, -25-90°C, IP67, Shielded, Suitable for trailing chain and torsion resistant, Oil and cooling lubricants, Welding area, Silicon...

**VK205325**



Connection cable, 2m, M12  
Female (socket) 4pin Straight, Free conductor end, 4x0.34mm<sup>2</sup>, PUR (Polyurethane), Ø5.5mm, 250V, -25-90°C, IP67, Shielded, Suitable for trailing chain and torsion resistant, Oil and cooling lubricants, Welding area, Silico...

**VK030F21**



Connection cable, 0.3m, M12  
socket 4-pin angular, M12 connector 4-pin straight, 4x0.34mm<sup>2</sup>, 240V, IP67, suitable for trailing chain and torsion resistant, oils and cooling lubricants, welding area, silicone-free

**VK030F25**



Connection cable, 0.3m, M12  
socket 4-pin straight, M12 connector 4-pin straight, 4x0.34mm<sup>2</sup>, PUR (polyurethane), 240V, IP67, suitable for trailing chain and torsion resistant, oils and cooling lubricants, welding area, silicone-free

**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

**VK003020**



Cable socket, angular, self-assembly, screw connection, Ø3-6.5mm, 4A, 240V, -25-90°C, M12 socket 4-pin, IP67, PBT

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.

**/** Any software, drivers or IODD files that may be required to operate your device can be downloaded free of charge from our homepage: [www.ipf-electronic.com](http://www.ipf-electronic.com)