

UT139070

Ultrasonic sensors • Distance measurement

sensor ultrasonic, diffuse-reflection sensor, 84x12x12mm, Sn: 20-200, 18-30V DC, 0-10V/4-20mA, IO-Link, Connector M8 4pin, IP67, Aluminum, Teach-In, With LED display, ultrasonic cone Lateral



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
Type of electrical connection	Connector M8
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	35 mA
Number of pins	4
Relative linearity deviation	0.4 %
Sound outlet	Lateral
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
Measuring range	20 - 200 mm
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	Cuboid
Width	12 mm
Height	84 mm
Length	12 mm
Mounting distance	60 mm
Degree of protection (IP)	IP67
Housing material	Aluminum
Diameter detection	Yes
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

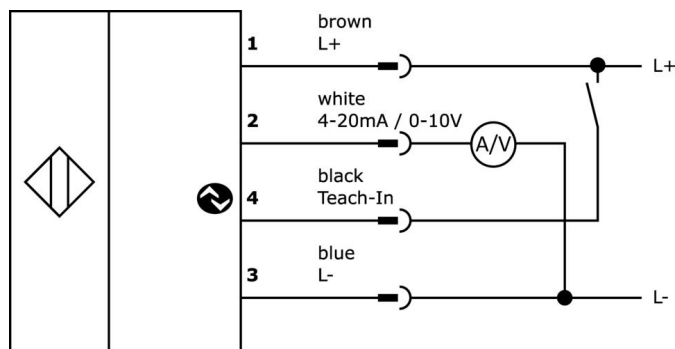
Classification

ETIM 8	EC001849 Ultrasonic probe
--------	---------------------------

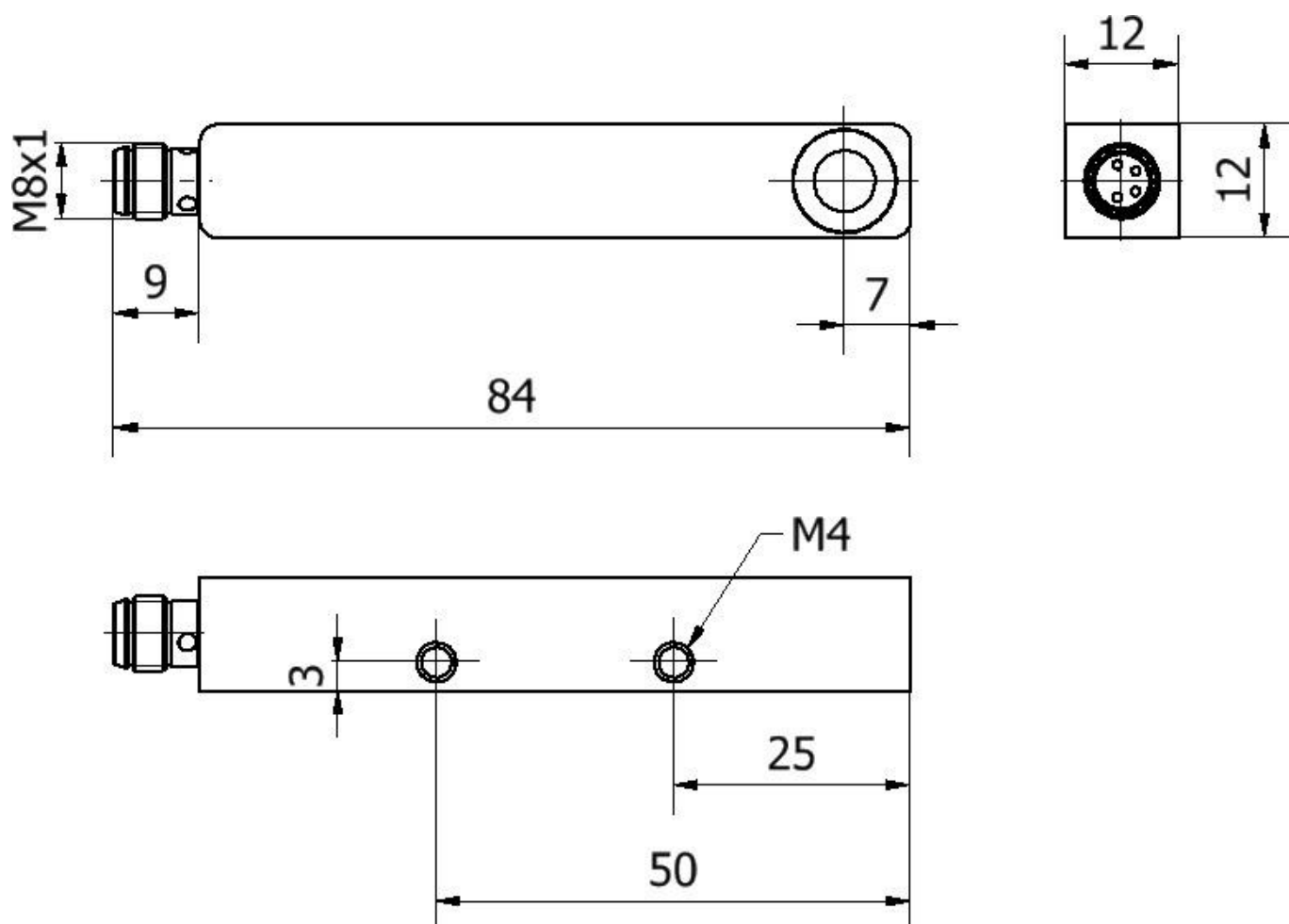
More

IPF Product Group	259 ultrasonic sensors (analog)
packaging dimensions	160 x 150 x 13 mm
gross weight	38 g
Customs tariff number	85365019
WEEE number	40951076
Reach-compliant	Yes
RoHS-compliant	Yes

Connection



Dimensional drawing



Extract accessories program

VK003071



Cable socket, Angular, Suitable for self-assembly, Soldering connection, Ø3.5-5mm, 4A, 30V, - 40-85°C, M8 Female (socket) 4pin, IP67, Brass

VK003075



Cable socket, Straight, Suitable for self-assembly, Soldering connection, Ø3.5-5mm, 4A, 30V, - 40-85°C, M8 Female (socket) 4pin, IP67, Brass

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

VK200371



Connection cable, 2m, M8 Female (socket) 4pin Angular, Free conductor end, 4x0.34mm², PUR (Polyurethane), Ø4.7mm, 30V, - 30-90°C, IP67, Suitable for trailing chain and torsion resistant, Oil and cooling lubricants, Welding area, Silicone-free

VK200375



Connection cable, 2m, M8 Female (socket) 4pin Straight, Free conductor end, 4x0.34mm², PUR (Polyurethane), Ø4.7mm, 30V, - 30-90°C, IP67, Suitable for trailing chain and torsion resistant, Oil and cooling lubricants, Welding area, Silicone-free

AY000058



accessories sensor, Mounting angle bracket, M4x0.7 12long, Mounting material for sensor, brackets, Aluminum

AY000119



accessories sensor, Fixture kit, Metal, ball joint

VK205375



Connection cable, 2m, M8 Female (socket) 4pin Straight, Free conductor end, 4x0.34mm², PUR (Polyurethane), Ø5.5mm, 60V, - 25-90°C, IP67, Shielded, Suitable for trailing chain and torsion resistant, Oil and cooling lubricants, Welding area, Silicone..

VK505371



Connection cable, 5m, M8 Female (socket) 4pin Angular, Free conductor end, 4x0.34mm², PUR (Polyurethane), Ø5.5mm, 60V, - 25-90°C, IP67, Shielded, Suitable for trailing chain and torsion resistant, Oil and cooling lubricants, Welding area, Silicone..

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