

# UT189023

## Ultrasonic sensors • Distance measurement

sensor ultrasonic, diffuse-reflection sensor, M18x1 56long, Sn: 150-1500, 18-30V DC, 0-10V/4-20mA, IO-Link, 4pin, IP67, Brass Nickel-plated, Teach-In, With LED display, ultrasonic cone Axial

including 2x 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	1mm
Type of analog output	0 - 10V   4 - 20mA
Rated switching current	150mA
Readiness delay	300ms
Setting procedure	Teach-In
Short-circuit protection	Yes
Load resistance (voltage output)	10kOhm
Load resistance (current output)	0.4kOhm
No-load current	40mA
Number of pins	4
Relative linearity deviation	0.5%
Sound outlet	axial
Switching frequency	5Hz
Protection class	III
Temperature drift over entire measuring range	1%
Carrier frequency	400kHz
Reverse polarity protection	Yes
Absolute repeat accuracy	1mm
Operating voltage (DC)	18 - 30V
Measuring range	150 - 1500mm
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	30.5mm
Thread pitch	1mm
Length	55.5mm
Mounting distance	700mm
Surface	nickel-plated
Degree of protection (IP)	IP67
Housing material	Brass
Diameter detection	Yes
Thread dimension	M18
Ambient temperature	-25 - 70°C

## Other features

Operating frequency	400kHz
Level detection	Yes
Object detection on conveyor systems	Yes
Reference medium / object	Measuring plate 200x200mm
Ambient temperature	-25 - 70°C

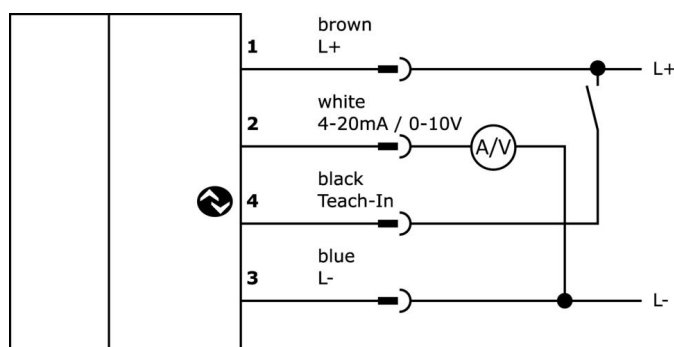
## Classification

ETIM 8	EC001849 Ultrasonic probe
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## More

IPF Product Group	259 ultrasonic sensors (analog)
packaging dimensions	175 x 155 x 20 mm
gross weight	56 g
Customs tariff number	85365019
WEEE number	40951076
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).

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)

#### Dimensional drawing

