

UT120020

Ultrasonic sensors • Distance measurement

Ultrasonic sensor, diffuse reflection sensor, M12x1 70long, Sn: 20-200, 15-30V diagnostic coverage, 0-10V, M12 plug-in connector 4-pin, IP67, nickel-plated (n-pltd) brass, teach-in, LED, axial sound cone

including Nut



Ultrasonic sensors are non-contact and wear-free position switches that can also be used under harsh environmental conditions. A significant advantage of these devices is that the material and surface properties of the objects to be detected can be almost arbitrary. Solid, liquid, granular and powdery materials are detected. 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 fill level control (e.g. silo detection), positioning and presence detection (e.g. glass pane positioning, foil crack control, glass bottle detection).

Electrical features

Display	LED display
Resolution	0.3mm
Type of analog output	0 - 10V
Type of electrical connection	Connector M12
Setting procedure	Teach-In
Short-circuit protection	Yes
No-load current	35mA
Number of pins	4
Relative repeat accuracy	0.1%
Sound outlet	axial
Protection class	III
Temperature drift over entire measuring range	2%
Carrier frequency	380kHz
Reverse polarity protection	Yes
Operating voltage (DC)	15 - 30V
Measuring range	20 - 200mm

Mechanical features

Design	Cylinder, screw-thread
Thread length	55mm
Thread pitch	1mm
Length	70mm
Surface	nickel-plated
Degree of protection (IP)	IP67
Housing material	Brass
Diameter detection	Yes
Thread dimension	M12
Ambient temperature	-10 - 60°C

Optical features

Angle of beam spread	6°
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Other features

Operating frequency	380kHz
Level detection	Yes

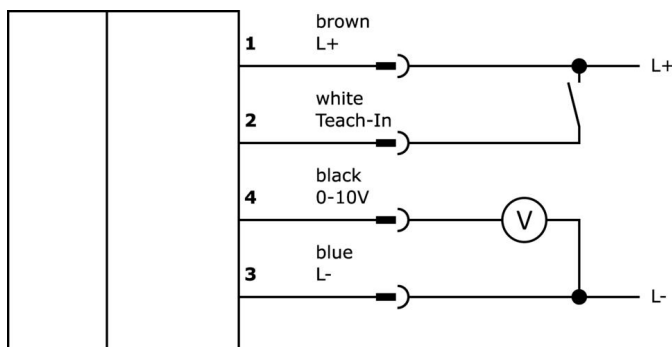
Classification

ETIM 8	EC001846 Ultrasonic distance sensor
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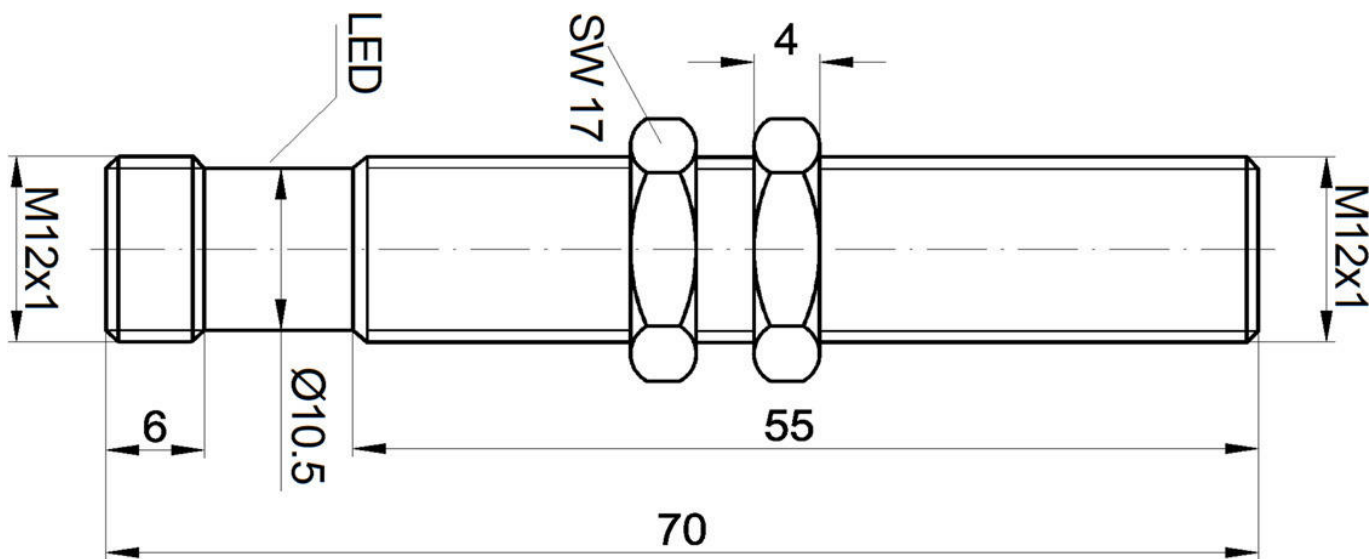
More

IPF Product Group	259 ultrasonic sensors (analog)
packaging dimensions	120 x 100 x 17 mm
gross weight	40 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

VK003020



Cable socket, Angular, Suitable for self-assembly, Screw connection, Ø3-6.5mm, 4A, 240V, -25-90°C, M12 Female (socket) 4pin, IP67, PBT

VK003024



Cable socket, Straight, Suitable for self-assembly, Screw connection, Ø3-6.5mm, 4A, 240V, -25-90°C, M12 Female (socket) 4pin, IP67, PBT

VK000041



Adaption, M12 Female (socket) 4pin Straight, M8 Male (connector) 4pin Straight, 24V, -25-85°C, IP67, Oil and cooling lubricants, Welding area

AY000162



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

AY000159



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

VK205321



Connection cable, 2m, M12 Female (socket) 4pin Angular, Free conductor end, 4x0.34mm², 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, 4x0.34mm², PUR (Polyurethane), Ø5.5mm, 250V, -25-90°C, IP67, Shielded, Suitable for trailing chain and torsion resistant, Oil and cooling lubricants, Welding area, Silico...

AY000115



accessories sensor, Fixture kit, Metal, ball joint

AV000114



accessories, Teach adapter, M12 Female (socket) 4pin Straight, M12 Male (connector) 4pin Straight Black

You can find further accessories on our homepage

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.