

UT18E291

Ultrasonic sensors • Distance measurement

Ultrasonic sensor, diffuse reflection sensor, M18x1 55long, Sn: 150-800, 12-30V DC, 4-20mA, M12 plug-in connector 5-pin, IP67, V4A, axial sound cone

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

Response/decay time	120 ms
Resolution	0.2 mm
Type of analog output	4 - 20mA
Type of electrical connection	Connector M12
Short-circuit protection	Yes
Load resistance (current output)	0.5 kOhm
No-load current	25 mA
Number of pins	5
Relative linearity deviation	1 %
Relative repeat accuracy	0.5 %
Sound outlet	axial
Protection class	III
Temperature drift over entire measuring range	0.1 %
Carrier frequency	140 kHz
Reverse polarity protection	Yes
Operating voltage (DC)	12 - 30 V
Measuring range	150 - 800 mm

Mechanical features

Design	Cylinder, screw-thread
Thread length	15 mm
Thread pitch	1 mm
Length	55 mm
Degree of protection (IP)	IP67
Housing material	Stainless steel 1.4404
Diameter detection	Yes
Thread dimension	M18
Ambient temperature	-20 - 70 °C

Optical features

Angle of beam spread	40 °
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Other features

Operating frequency	140 kHz
ardTE00_Anwendungen	Niveauabfrage

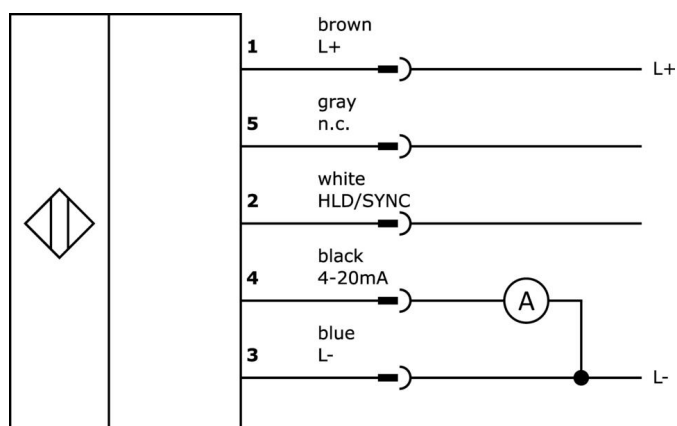
Classification

ETIM 8	EC001846 Ultrasonic distance sensor
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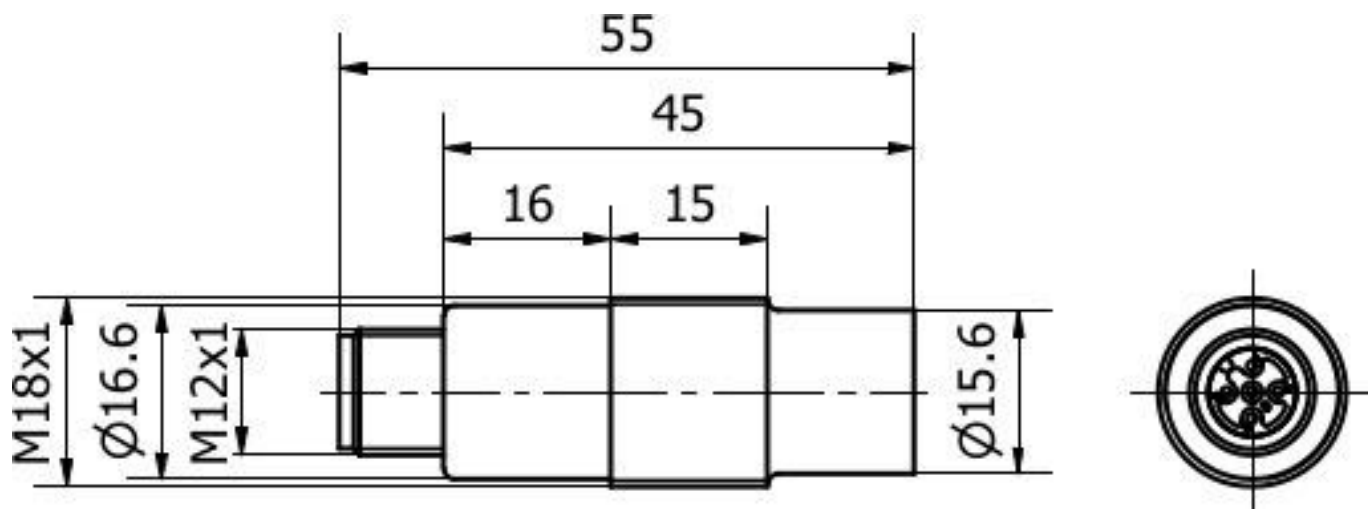
More

IPF Product Group	259 ultrasonic sensors (analog)
packaging dimensions	123 x 77 x 25 mm
gross weight	68 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

AY000026



accessories, Hexagon nut, M18x1, Wrench size 24mm, Brass Nickel-plated

AY000038



accessories, Hexagon nut, M18x1, Wrench size 24mm, Stainless steel

VK003020



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

VK200021



Connection cable, 2m, M12 Female (socket) 3pin Angular, Free conductor end, 3x0.34mm², PUR (Polyurethane), Ø4.3mm, 250V, -30-90°C, IP67, Suitable for trailing chain and torsion resistant, Oil and cooling lubricants, Welding area, Silicone-free

VK200025



Connection cable, 2m, M12 Female (socket) 3pin Straight, Free conductor end, 3x0.34mm², PUR (Polyurethane), Ø4.3mm, 250V, -30-90°C, IP67, Suitable for trailing chain and torsion resistant, Oil and cooling lubricants, Welding area, Silicone-free

AY000014



accessories sensor, Reduction sleeve, M18, Plastic

AY000162



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

AY000159



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

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.