FEATURES

- Ultrasonic sensors
- insensitivity to countless materials, surface types, and colors
- Wood, metal, orplastic; colored, reflective or transparent
- Narrow Beam and Short Dead Band
- Temperature Compensated
- Intrinsically Safe CE & IP67 compliant in properly designed integrated system
- Tamperproof & Rugged
- IP67 Enclosure Rating
- Accurate under demanding environmental conditions

RS PRO Ultrasonic Level/Distance Sensor

RS Stock No.: 2565736

RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

General Specifications

Ultrasonic sensors precisely detect objects made from various materials regardless of their shape, colour, or surface contour. The operate using high-frequency sound waves that are inaudible to the human ear.

- Liquid and Solid Level Measurement
- Position Detection
- Factory automation
- Tanks, Totes, Processing

Electrical Specifications

Series	PW40
Detection Range	400mm – 10000mm
Transducer Frequency	40KHz
Sensor Configuration	Diffuse Reflection
Output Type	1 analogue output 4…20mA
Response Time	125 ms
Beam Angle	12°
Deviation of the characteristic curve	±1% of full-scale value
Repeat accuracy	±0.1% of full-scale value
Terminal Type	Four-core cable
Communication Interface	Four-core cable
Indicator	
Wire Technique	4-wire
Electrical Connection	Four-core cable
Cable Length	2m
Minimum Operating Temperature	-25 ℃
Maximum Operating Temperature	75 ℃
Shock Resistance	
Vibration Resistance	

Operating Voltage Range	10V dc to 30V DC
Current Consumption	≤15mA（No-load）
Voltage Drop	2V
Maximum Load	500 Ohm
Switching Frequency	
Switching Current	
Reverse Polarity Protection	Yes
Short Circuit Protection	Yes
Overload Protection	Yes

Body Style	Cylindrical
Thread Size	M30
Housing Material	ABS/PVC
Front Material	Epoxy
Dimensions	¢62mm x 150mm
Width / Diameter	¢62mm
Length	150mm
Depth	
Weight	600g

Protection Category

IP Rating	IP67

Additional Information

EAN	
Custom Tariff Number	

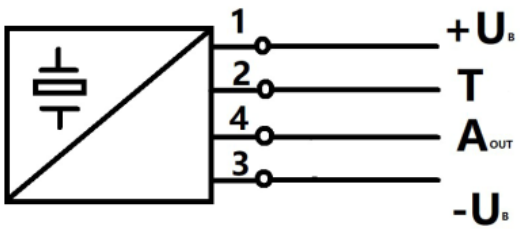
Classification

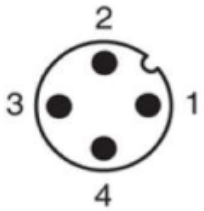
eCl@ss	
UNSPSC	

Approvals

Compliance/Certifications	CE / RoHS EN 60947-5-2:2020
Declarations	MFR Declaration of Conformity

Electrical Connection





1	BN	(brown)
2	WH	(white)
3	BU	(blue)
4	BK	(black)

Wire Colors in accordance with EN 60947-5-2

Adjusting the evaluation limits

The ultrasonic sensor features an analogue output with two teachable evaluation limits. These are set by applying the supply voltage $-U_B$ or $+U_B$ to the TEACH-IN input. The supply voltage must be applied to the TEACH-IN input for at least 1 s. LEDs indicate whether the sensor has recognised the target during the TEACH-IN procedure. The lower evaluation limit A1 is taught with $-U_B$, A2 with $+U_B$.Two different output functions can be set:

1. Analogue value increases with rising distance to object (rising ramp)

2. Analogue value falls with rising distance to object (falling ramp) Evaluation limits may only be specified within the first 5 minutes after Power on. To modify the evaluation limits later,the user may specify the desired values only after a new Power On.

TEACH-IN rising ramp (A2 > A1)

- Position object at lower evaluation limit

- TEACH-IN lower limit A1 with - U_B

- Position object at upper evaluation limit

- TEACH-IN upper limit A2 with + U_B

TEACH-IN falling ramp (A1 > A2):

- Position object at lower evaluation limit

- TEACH-IN lower limit A2 with + U_B

- Position object at upper evaluation limit

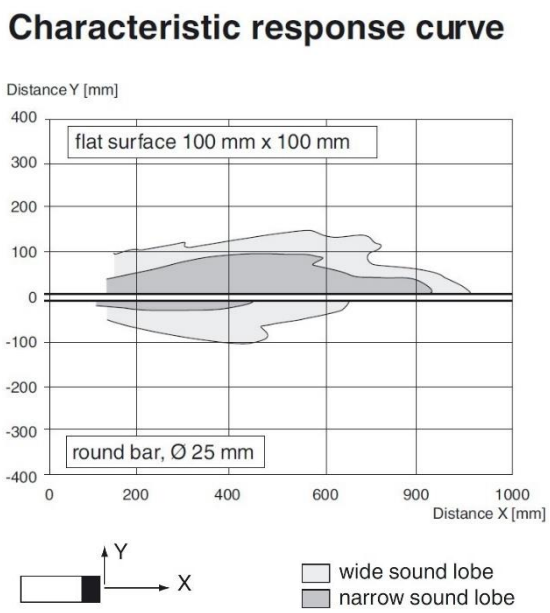
- TEACH-IN upper limit A1 with - U_B

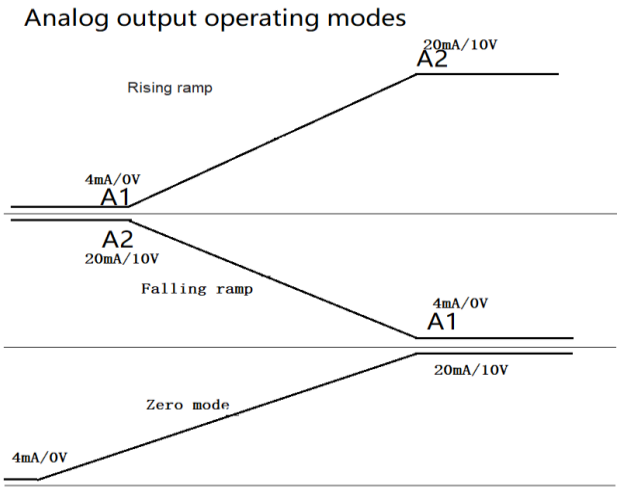
Default setting

A1: unusable area

A2: nominal sensing range

Mode of operation: rising ramp





Drawing