ULTRASONIC PROXIMITY SWITCH





Features:

- Ideally suitable for Level monitoring application
- Have the ability to perform in dry & dusty environment
- Performance is not affected by media

Technical Specification:

- Diameter: M30, M60
- Sensing Distance: 0.2 to 20 mm
- Basic Connection: 2 wire / 3 wire
- Output Logic: NO / NC / RO / PNP-NO / PNP-NC / NPN-NO / NPN-NC
- Supply Voltage: 24/110/240 V AC, 5/24/30/48/65/110/220 V DC
- Mounting type: Flush / Non-Flush
- Load Current: 20 mA

ULTRASONIC PROXIMITY SWITCHES

SERIES SW 305 / SW 315

The series SW 305 Ultrasonic Proximity Switches are ideally suitable for level monitoring applications. The Ultrasonic Sensors are available in different enclosures to detect various types of objects.

The sensing range covers from 0.2 m to 20 meters. The output signal is either in the form of a switching signal or a linear output current or voltage signal. These sensors have the ability to perform in dry and dusty environments. The performance of these sensors is not affected by the presence of impeding materials like Ash, Soot, and Sawdust etc.

These sensors are immune to electrical noise level generally present in the typical industrial environment.

WORKING PRINCIPLE

These switches incorporate a precise and delicate piezo Ceramic Ultrasonic transducer pair. The sensors are available in open as well as sealed type transducers.

The transmitter sends a modulated Ultrasonic Signal, which is reflected by the object.

A microprocessor-based circuit precisely measures the time taken to travel the distance from object to sensor. Effective output signal (either linearly varying or switching type)

is generated depending upon application.

APPLICATIONS

- Anti-collision detection for cranes.
- Level controller for liquids and solids.
- Detection of moving objects.
- Opening / Closing of doors by detecting motion.

GENERAL SPECIFICATIONS

Output Signal	:	Switching/ Linear output
Protection Grade	:	IP-67
Termination	:	Integrated 2-meter long cable.
Sensing Range	:	0.4 to 20 meters depending on model and application.

FEATURES

The Ultrasonic Sensors are provided with programming facility. General features available in programmable sensors are as below;

- Outputs: Push-button "teachable"
- Measurement Rate: 40 per second
- Response Time: 50 ms (FAST), 50mm/sec (SLOW)
- Resolution: 0.086 mm
- Repeatability 0.1% target range @ constant temp.
- Working Temp: -40°C to +70°C
- RS-232 / RS-485 Communication for calibration using software.

ULTRASONIC	M30	M60 Prog.
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SW 3051	DC 3 Wire	
Dimension : Dia.	M30	M60
Length (mm)	100	100
Sensing Distance Sn. (mm)	0.2 to 2 Mtr.	0.2 to 10 Mtr.
Enclosure	A	A
Load Current (mA)	20	20
Supply Voltage (V DC)	D1 to D6	D6
Switching Frequency (Hz)	10	20
Logic Available	PO, NO, LO	LO

SELECTION CHART

While selecting a switch please follow this nomenclature



The Sensing Distance, Load Current, Switch Length, Cable Length, Operating Temperature will be as per factory standard unless otherwise specifically mentioned.

Example : Inductive Proximity Switch of 3-Wire DC PNP tubular type with 24 mm diameter will have following type no. **SW 4051 PO D1 B24**