

RPS-450, RPS-475 Self-Contained Ultrasonic Sensor

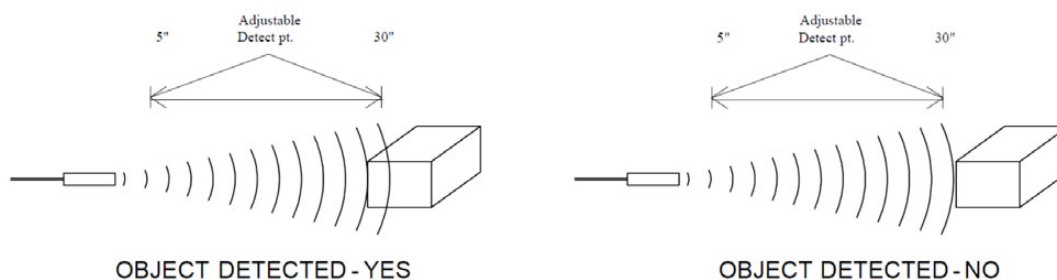


Features

- Self Contained
- Range 5 to 30 or 10 to 72 in.
- Narrow Sensing Beam
- High Frequency
- LED Indicator
- Potentiometer For Set-up
- Environmentally Sealed Housing
- Operates in Hostile Environments
- Operating Voltage 120VAC (60 Hz)
- N.O. N.C. Solid State Relay Outputs
- RPS-450 in Plastic Housing
- RPS-475 in Stainless Steel Housing

The RPS-450, 475 are stud-mount, completely self-contained, 120VAC powered ultrasonic proximity sensors. These sensors are range or distance sensitive, enabling the sensors to detect objects only within the desired range and rejecting others. The RPS-450, 475 are solid state sensors including their solid state outputs, therefore having nearly unlimited life. The sound source operates in the ultrasonic spectrum and is therefore not heard. For initial setup purposes, a built in potentiometer and LED indicator are provided. The LED indicator illuminates when the ultrasonic wave from the sensor is reflected back to the sensor within the preset range. These sensors provide precise proximity or level sensing regardless of color, density, or transparency. They are equally effective on liquid, metal, plastic, and glass targets.

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Proximity Detection

Proximity Detection

Proximity detection is the detection of an object in a given range. The detection range of the RPS-450, 475 is controlled by a potentiometer located on the rear of the sensor. Any object within the desired range is detected, while objects out of range are ignored. The detect point is independent of size, material, or reflectivity of the object.

Specifications:

Operational Range RPS-450	Adjustable 5" to 30"	
RPS-475	Adjustable 10" to 72"	
Power Input	120VAC	
Input Current	30 Milliamps	
Ambient Temperature	0°C to 60°C or 32°F to 140°F	
Humidity	0 - 95% Non-Condensing	
Transducer Housing	RPS-450 is Plastic RPS-475 is 303 Grade Stainless Steel	
Transducer	316 Grade Stainless Steel Sensing Face	
Output N.O., N.C.	Zero-Crossing Detection Isolation 2500 Vrms Off State Leakage - .001A Maximum Load Current - .005 to 1A Peak Current (One Cycle at 20A Maximum) Switching Voltage - 2 to 130VAC	
Transducer Frequency	5" to 30" RPS-450: 212 kHz	10" to 72" RPS-450: 150kHz RPS-475: 150kHz
Response Time	5" to 30" 30mS	10" to 72" 60mS

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Weight

11 ounces

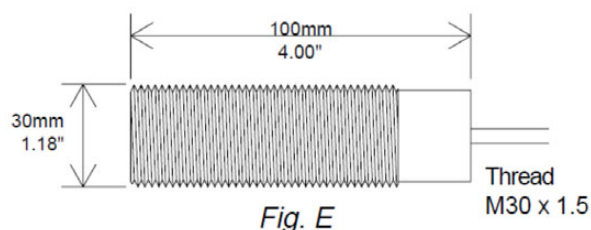
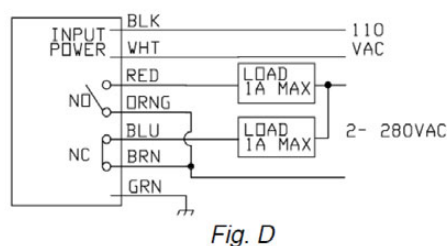
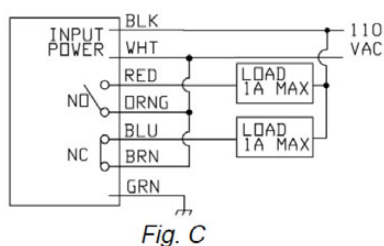
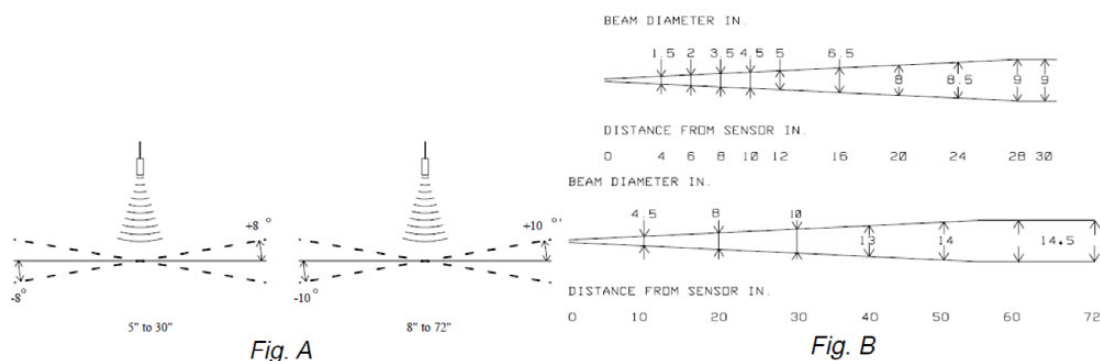


Figure:

- A - Angle of Tilt
 - B - Beam Spread
 - C - Wiring Diag.- Load conn. to Sensor Power
 - D - Wiring Diag.- Load conn. to External Power
 - E - Mounting Dimensions
- NOTE: Consult Factory for "QD" option.

Ordering Code

Part Number	Range	Output
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RPS-450-30	5" - 30"	N.O. N.C. Solid State Relays
RPS-450-72	10" - 72"	N.O. N.C. Solid State Relays
RPS-475-72	10" - 72"	N.O. N.C. Solid State Relays

All electrical equipment should be installed by a qualified/certified electrician.

Deeter Electronics Ltd follows a policy of continual development of its products and reserves the right to change specifications and/or features without notice.