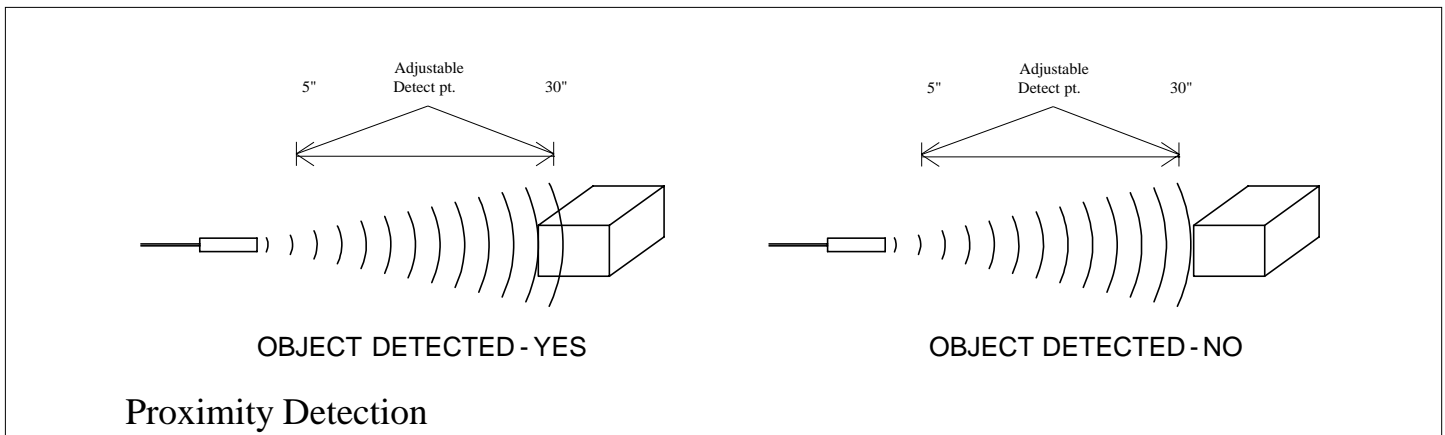# RPS-450, RPS-475

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.

OBJECT DETECTED - YES   OBJECT DETECTED - NO

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"
	Adjustable 10" to 72"
RPS-475	Adjustable 10" to 72"

Power Input: 120VAC

Input Current: 30 Milliamps

Ambient Temperature: 0ºC to 60ºC or 32ºF to 140ºF

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"	10" to 72"
	RPS-450: 212 kHz	RPS-450: 150kHz
		RPS-475: 150kHz

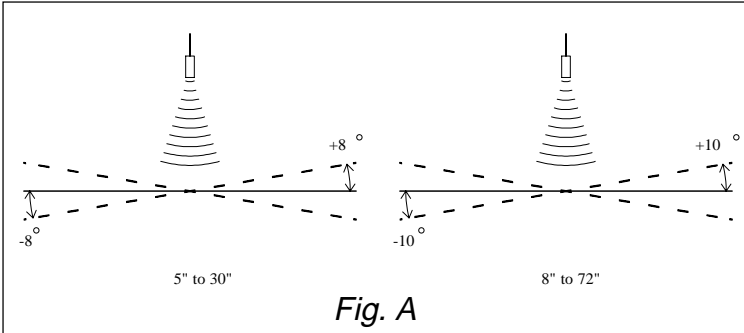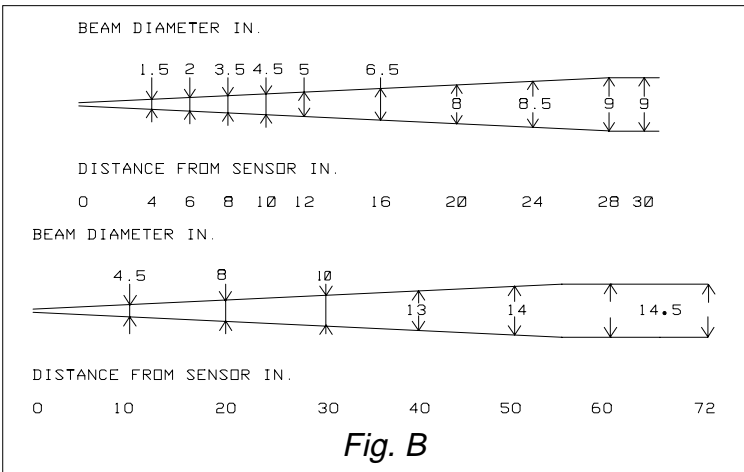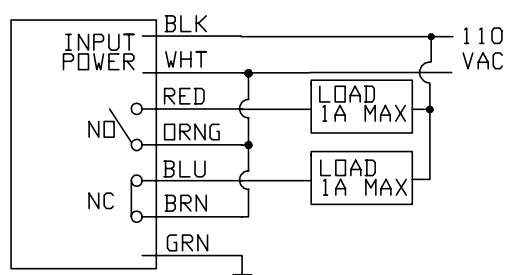| Response Time:	5" to 30"	10" to 72"
	30mS	60mS

Weight: 11 ounces

Fig. A

Fig. B

Fig. C

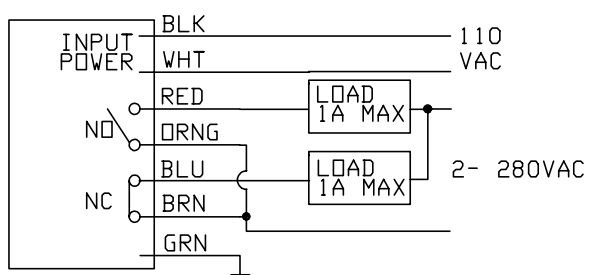Fig. D

Figure:

A - Angle of Tilt
B - Beam Spread
C - Wiring Diag.- Load conn. to Sensor Power
D - Wiring Diag.- Load conn. to External Power
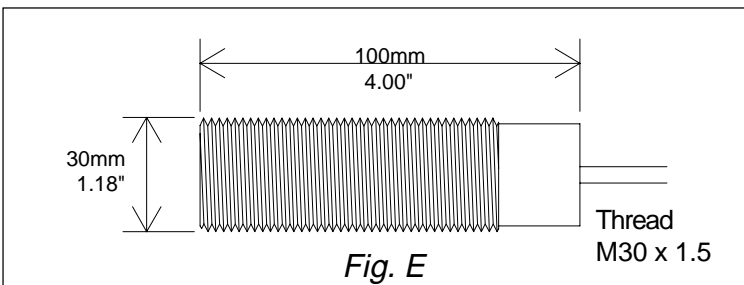E - Mounting Dimensions

NOTE: Consult Factory for "QD" option.

Fig. E

PART NUMBER	RANGE	OUTPUT
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