

RPS-302 Ultrasonic Sensor Controller with Remote Sensing Head



Features

- Various Sensing Ranges
- Narrow Sensing Beam
- High Frequency
- 2-Way Power Operation
- Sealed Remote Transducers
- Adjustable Delay Controls
- 2 Multiplexed Transducers
- LED Indicators
- Isolated Form C Relay Outputs
- Small Electronic Controller

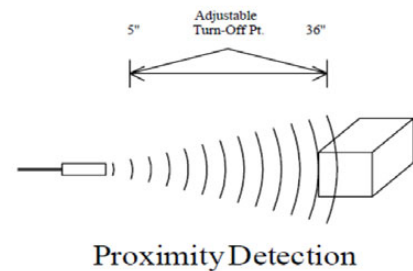
The RPS-302 has 2 sealed, multiplexed transducers with independent range control adjustments, LED indicators, and form C relay outputs. This sensor also has a unique master and slave feature which enables many of the same units to be used within close proximity of one another without cross-talk interference. For example, if three sensors are needed in a close area, one sensor would be left as a master and the other two would be slaves. This is done by means of the X IN, X OUT, and GND connection on the board. One sensor (master) would send a signal by means of the X OUT and GND terminals. These would be connected to the X IN and GND terminals of the other two sensors (slaves). With the sensors connected in this way, all units would be transmitting and receiving at the same time. This then would prevent cross-talk and enable all three sensors, or all six transducers, to be used at the same time in close proximity of one another. There are also separate turn ON and turn OFF DELAY potentiometers provided for each transducer. All four DELAY controls are located along side the black module inside the enclosure box. The remote transducers allow for mounting of the sensor heads in cramped spaces while the controller is out of the way. The (2) independent and isolated form C relays furnish N.O. and N.C. outputs. This sensor, operates at a frequency of 222kHz for the 14" and 36" ranges and 150kHz for the 72" range. This sensor has a narrow sensing beam. Sensing ranges available

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for the RPS-302 include 4" to 14", 5" to 36" and 8" to 72". Mounting flanges, LED indicators, ranging potentiometers, and 6-ft. transducer cables are included. Optional cable lengths are available.

Proximity Detection

Proximity detection is the detection of an object in a given range. The detection range of the RPS-302 is controlled by the "Range Control" potentiometers located on the front cover of the controller. Any object within the desired range is detected, while objects out of range are ignored. The detect point is independent of size, material, and reflectivity.



Specifications:

Operational Range	Adjustable 4" to 14" Adjustable 5" to 36" Adjustable 8" to 72"		
Power Input	120VAC 15 - 24VDC		
Input Current	40 Milliamps		
Ambient Temperature	0°C to 60°C or 32°F to 140°F		
Controller	Metal Enclosure		
Transducer Housing	Galvanized Steel in 14" & 36", Plastic in 72"		
Transducer	Silicone Rubber or Teflon Sensing Face		
Output N.O., N.C. for each transducer	Isolated Form C Relay .5 Amp Maximum at 120VAC		
Transducer Frequency	222kHz for 14" and 36", 150kHz for 72"		
Adjustable Response Time	4" to 14"	5" to 36"	8" to 80"
ON	30mS - 2S	50mS - 2S	60mS - 2S
OFF	30mS - 2S	50mS - 2S	60mS - 2S
Weight of Controller	34.2 ounces		
Weight of Each Transducer	2.2 ounces		

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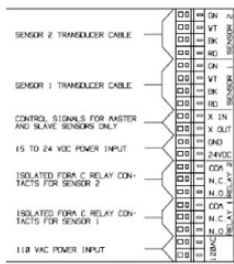
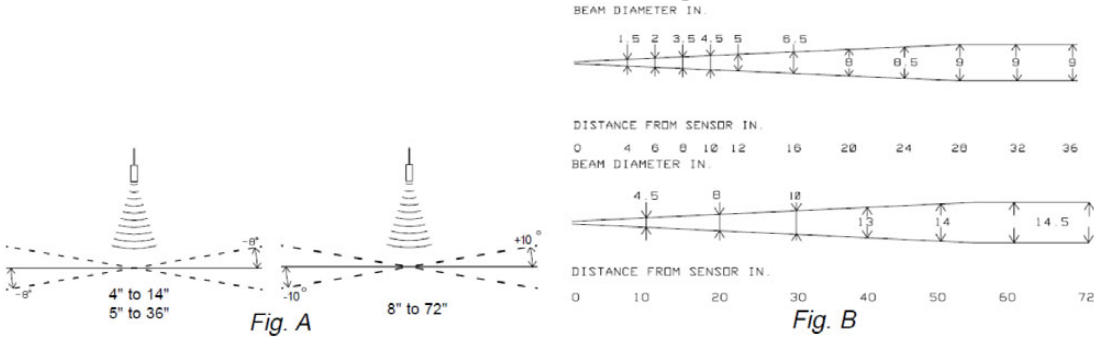
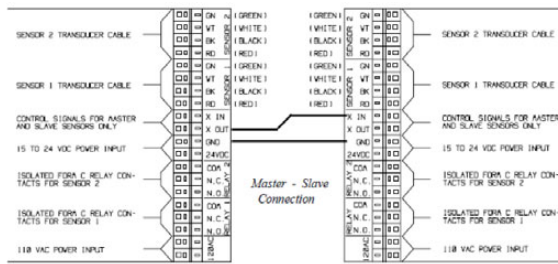


Fig. C



Master Unit

Fig. D

Slave Unit

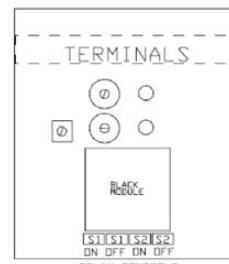


Fig. E

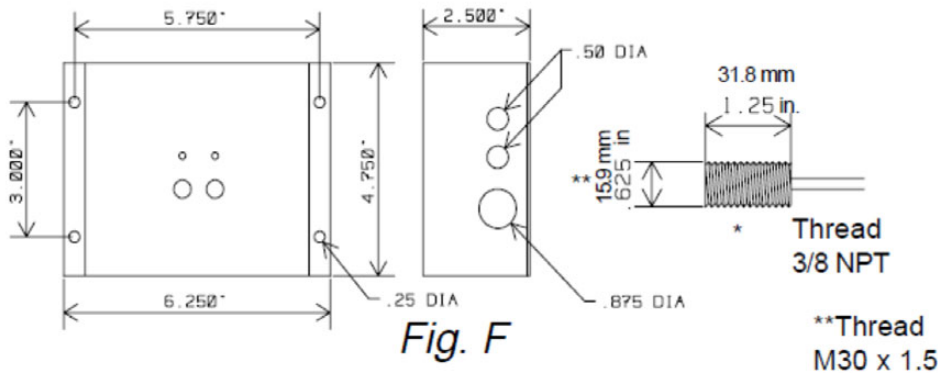


Fig. F

Figure:

- A - Angle of Tilt
- B - Beam Spread
- C - Wiring Diag.- For RPS-302
- D - Wiring Diag.- For Master - Slave configuration
- E - Delay Controls - For RPS-302
- F - Mounting Dimensions

*Dimensions show one transducer. The RPS-302 comes with (2) transducers. **The transducer diameter changes to 30mm when ordered with the Teflon face or in the 72" range.

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Ordering Code

Part Number	Range	Output
RPS-302-14	4" - 14"	1 Isolated form C Relay for each Transducer
RPS-302-36	5" - 36"	
RPS-302-72	8" - 72"	

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

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