



RPS-412A High Accuracy Sensor



Features

- Input Voltage 20-30 VDC
- Analog Voltage Output
- Short Circuit Protected
- Wide Temperature Range
- Temperature Compensation
- Self Contained Sensor
- Quick Disconnect Connector
- Stainless Steel Housing

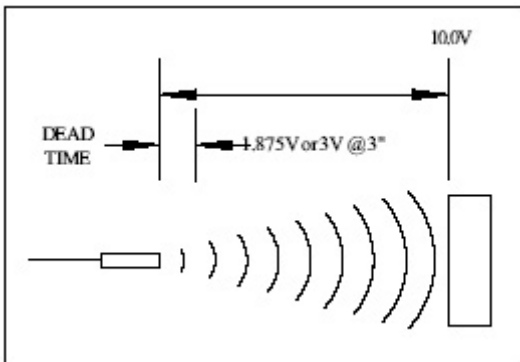
Description

The RPS-412A is a high accuracy analog ultrasonic sensor ($\pm 0.002''$ or 0.05% of range, which ever is greater, at 25°C). The sensor has a built in temperature compensation target, that monitors and compensates for air temperature 50 times per second. The sensor also compensates for changes in relative humidity, changes in barometric pressure, and other factors that influence the speed of sound.

The RPS-412A has a 47mm stainless steel barrel housing. The stainless steel housing is electrically isolated from the sensor electronics. The sensor comes with two jam nuts for mounting.

The RPS-412A has a 0-10V analog output. The analog output is fixed. The RPS-412A-16 is 0.625V per inch. The RPS-412A-10 is 1.000V per inch. For example using the 3-16" range version, a target placed 3 inches from the sensor face will result in a sensor output of 1.875V. A target placed 16 inches from the sensor face will result in a sensor output of 10.0V.

The RPS-412A is designed to take advantage of today's PLC and computer analog input cards. The analog input card will determine the resolution of the system. The numerical values programmed into the PLC or computer will determine the zero and span.





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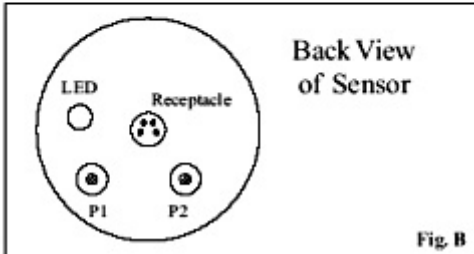
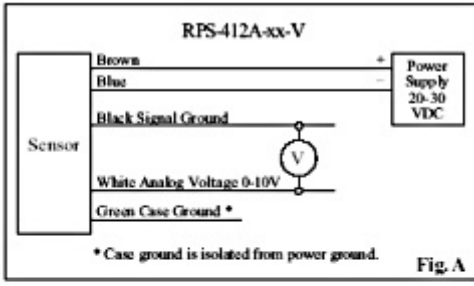
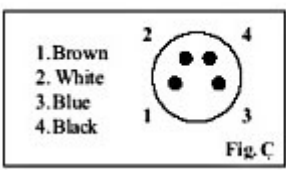
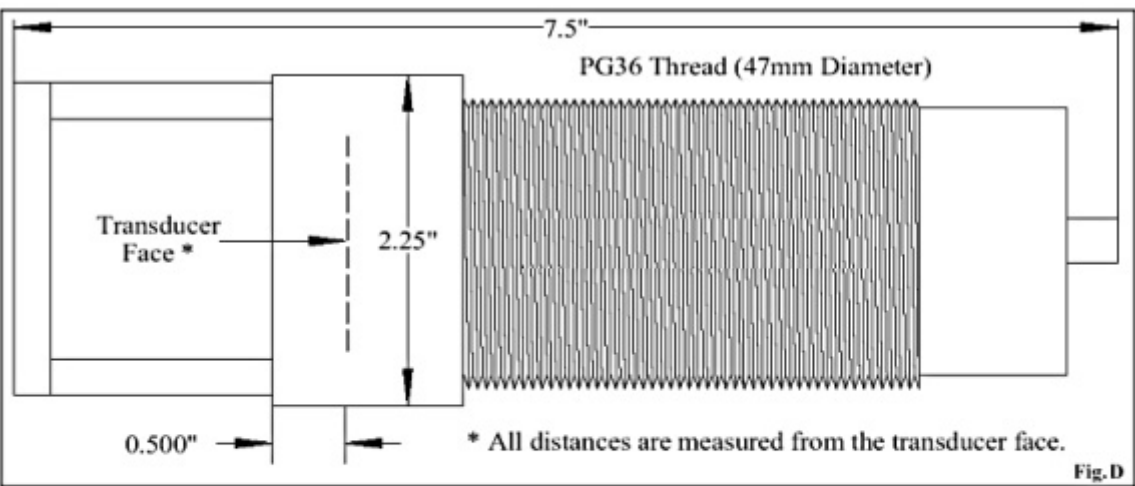


Figure:
 A- Wiring Diagram
 B- Back View of Sensor
 C- Connector Diagram
 D- Housing Diagram



Product Specifications

Accuracy:	$\pm 0.002\%$, or $\pm 0.05\%$ of range (which ever is greater) @ 25°C. $\pm 0.2\%$ of range from 0 to 50°C
Power Input:	20 to 30VDC Reverse Polarity Protected
Input Current:	65mA Typical
Operating Temperature:	0 to 50°C
Output:	<ul style="list-style-type: none"> Analog Voltage Output Short Circuit Protected Output Referenced to Power GND or Signal GND Load 500 Ohms to Infinity
Frequency:	60kHz
Housing Material:	Stainless Steel with PVC Head
Sample Rate:	20ms Typical
Update Time:	2s Maximum
Weight:	22 oz. (shipping weight 3 lbs.)



PART NUMBER	RANGE OUTPUT	DESCRIPTION
RPS-412A-10-V	3" to 10"	0 - 10VDC Analog Output
RPS-412A-16-V	3" to 16"	0 - 10VDC Analog Output
F32-5070042		6' Snap-In Cable, Straight (sold separately)
F32-5070053		6' Locking Cable, Straight (sold separately)
F32-5070094		6' Locking Cable, Right-Angle (sold separately)

