RPS-409A-80

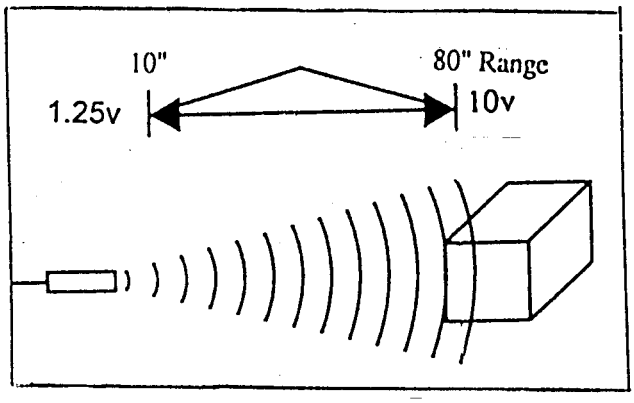


Features

- Sensing Range 6-80 in.
- Narrow Sensing Beam
- LED Indicator
- Short Circuit Protected
- Temperature Compensation
- Wide Temperature Range
- Sync / Enable Input Line
- Input Voltage 20-30 VDC
- Reverse Polarity Protected
- Self Contained Sensor
- Analog Voltage Output
- RPS-409A in PVC Housing
- Chemical Resistance (PVC)
- Quick Disconnect Connector

The RPS-409A-80 analog ultrasonic sensor is a self contained sensor in a 30mm PVC barrel housing. It is powered by 20-30 VDC with reverse polarity protection. It also has a narrow beam angle which enables it to get into tight places. A flat target can tilt up to 10 degrees and still be detected.

The RPS-409A-80 has a short circuit protected analog 0-10 VDC output. The output is a linear .125 volts per inch.
Example: a target placed 10 inches from the sensor will result in an output signal of 10 volts.



The RPS-409A-80 has a temperature compensation built in to provide accurate readings throughout the entire operating temperature range.

For set up purposes an LED indicator is provided. The LED is green when not detecting and changes to red when a target moves into place. The sensor is comletely sealed and connection is made by way of IP and Nema rated cables.

Besides the input and output lines there is an enable or synchronous line provided. This can be used to fire the sensor at a particular time or for connecting multiple sensors together to prevent crosstalk.

The RPS 409A-80 is designed to take advantage of todays PLC and computer analog input cards. The analog card chosen will determine the resolution of the system. The numerical values that are programmed into the PLC or computer will determine the zero and span.

If a set point or set points are required in the application look up the Migatron SPC-701, SPC-704, or M-1000 control products. Both the SPC-704 and M-1000 can also provide excitation power to drive the sensor.

Specifications:

Operational Range RPS-409A-80	6" to 80"
Power Input:	20 - 30 VDC Reverse Polarity Protected
Input Current:	40 Milliamps Max.
Ambient Temperature:	-40° to 60°C or -40° to 140°F
Humidity:	0% - 95% Non-Condensing
RPS-409A-80 Housing:	PVC Housing with a PVC sensing face
Output:	Analog Voltage Output 0-10 volts (Load 500 ohms to infinity) Short Circuit Protected
Transducer Frequency:	150 kHz
Response Time:	25mS Typical
Weight:	Sensor only 4 ounces Sensor plus cable shipping weight 9 ounces

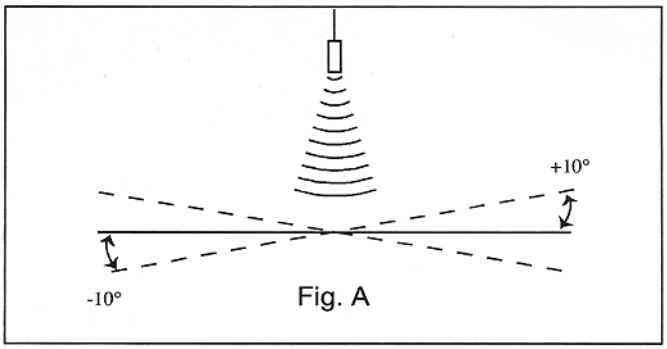
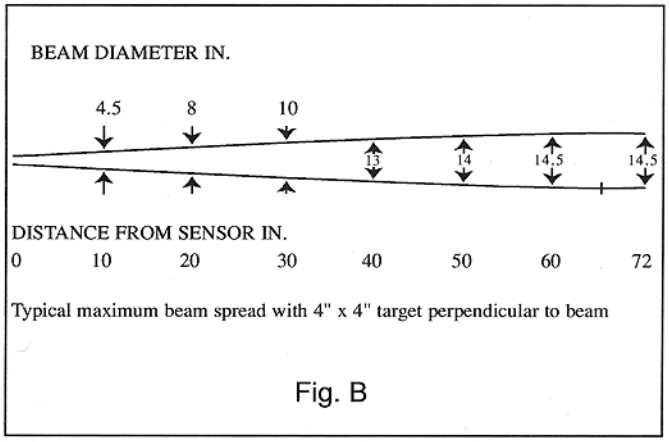


Fig. A



Typical maximum beam spread with 4" x 4" target perpendicular to beam

Fig. B

Mounting Consideration:
The performance of this sensor can be influenced by direct metal contact. This zone is 12mm/.50" measured from the sensor face. See Fig. G

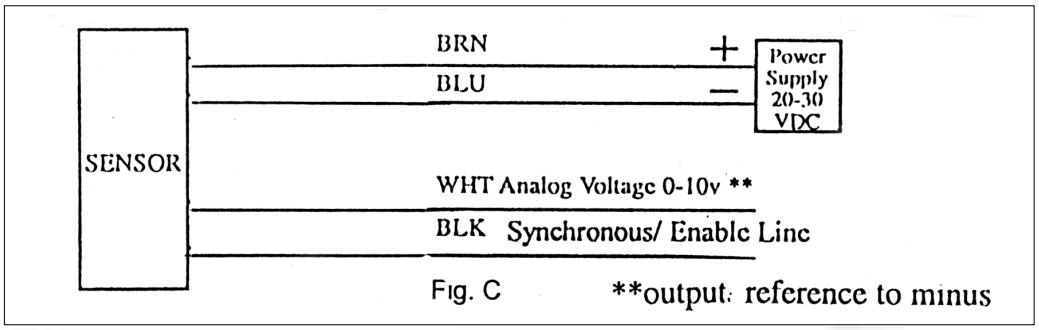


Fig. C **output reference to minus

Figure:

A - Angle of Tilt
B - Beam Spread
C - Wiring Diag. RPS-409A-80
D - Connector Diagram
E - Mounting Dimensions

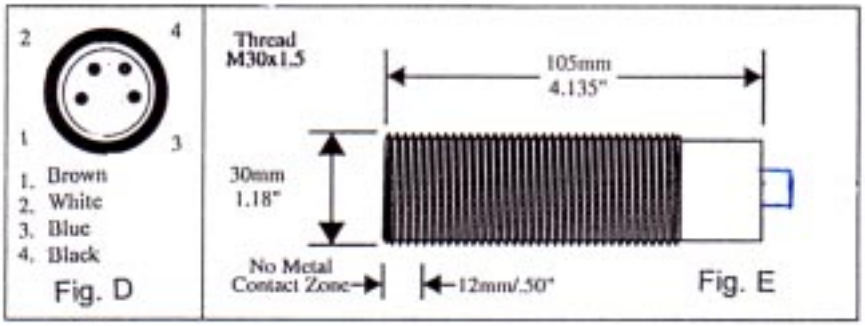


Fig. D Fig. E

PART NUMBER	RANGE	OUTPUT
RPS-409A-80	6" to 80"	0 - 10VDC Analog Quick Disconnect
5070042		6' Cable for "QD" option
5070053		6' Cable for "QD" option

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