

# The **DEETER** Group®

## RPS-326, RPS-326-X Ultrasonic Sensor Controller with Remote Sensing Head



### Features

- Various Sensing Ranges
- Narrow Sensing Beam
- Low Frequency - 37kHz
- LED Indicator
- Stainless Steel Housing
- Remote Transducer
- RPS-500 Compatible
- 3-Way Power Operation
- Isolated Form C Relay Output
- Explosion-Proof

The RPS-326 is a low frequency, sealed transducer sensor best suited for applications where harsh or hazardous environments are a problem. The transducer head is constructed of 316 grade stainless steel and has a CSA explosion-proof rating. The RPS-326 sensor head CSA rating is Class 1, Division 1, Group ABCD. The ranging and proximity modes provide the versatility of simple detection, or actual distance measuring. The isolated form C relay furnishes N.O. and N.C. outputs, and with the addition of the RPS-500 card various analog outputs are supplied. The RPS-326 sensor, which operates at a frequency of 37kHz, has a narrow sensing beam. Sensing ranges available for the RPS-326 include 24" to 72", and 24" to 240". Mounting flanges, LED indicator, ranging potentiometer and 30ft. transducer cable are included. Optional cable lengths are available.

Deeter House  
Valley Road  
Hughenden Valley  
Bucks HP14 4LW

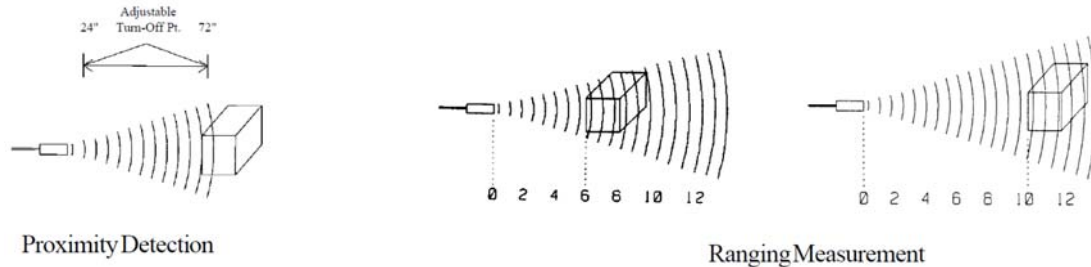
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### Proximity Detection

Proximity detection is the detection of an object in a given range. The detection range of the RPS-326 is controlled by the "Range Control" potentiometer 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. The Proximity Option is denoted by the part number RPS-326-72.

### Ranging Measurement

With the addition of the RPS-500 card, Analog outputs of 0-10 VDC and 4-20 mA are provided. Precise distances of an object moving to and from the transducer are measured via time intervals between transmitted and reflected bursts of ultrasonic sound. The example shows a target detected at 6 feet from the transducer and moving to 10 feet. The distance change is continuously calculated and outputted. Ranging Option is indicated by following the part number with (-500). (Example: RPS-326-72-500).

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### Specifications:

Operational Range	Adjustable 24" to 72"	
	Adjustable 24" to 240"	
Power Input	120VAC	
* Only 120VAC or 24VDC with 500 Analog card.	20 - 30VDC	
Input Current	200 Milliamps	
Input Current with 500 card	250 Milliamps	
Transducer Temperature	-40°C to 88°C or -40°F to 190°C	
Humidity	0 to 95% Non-Condensing	
Controller	Metal Enclosed	
Transducer Housing	316 Grade Stainless Steel	
Output N.O., N.C.	Isolated Form C Relay	
	.5 Amp Maximum at 120VAC	
Output with 500 card	0 - 10VDC, 4 - 20mA Analog Outputs with	
	Zero, Span, Sample, and Hold Controls.	
Transducer Frequency	37kHz	
Response Time	24" to 72"	24" to 240"
ON	100mS - 2S	250mS - 2S
OFF	100mS - 2S	250mS - 2S
Weight of Controller	34.2 ounces	
Weight of Transducer	19 ounces	

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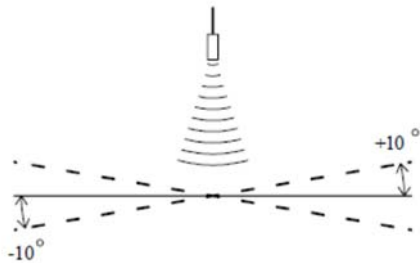


Fig. A

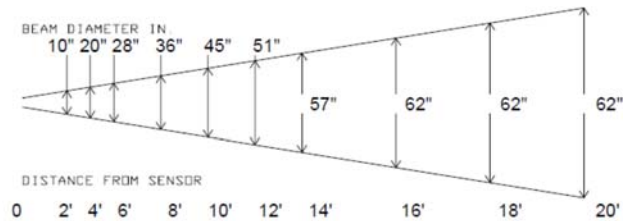


Fig. B

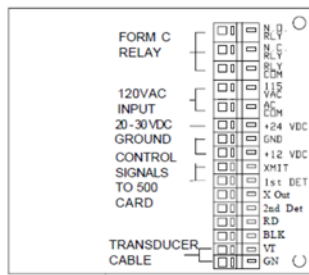


Fig. C

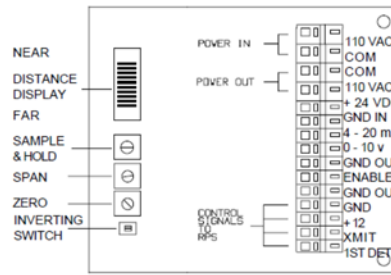


Fig. D

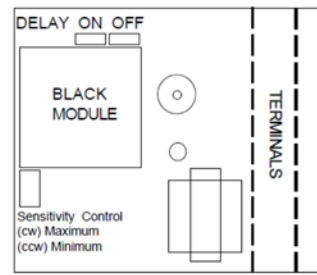


Fig. E

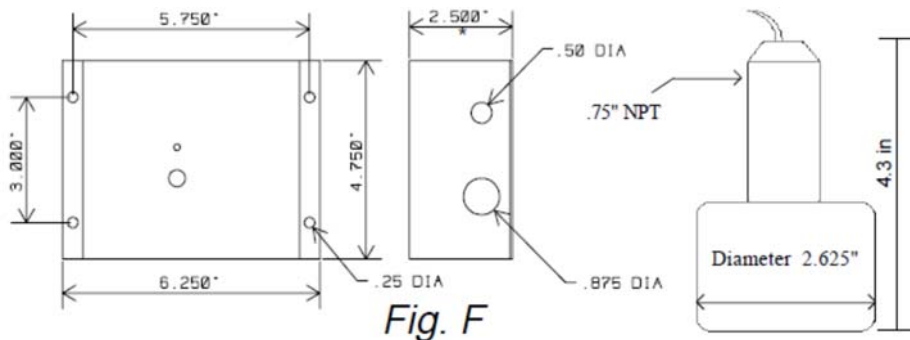


Fig. F

### Figure:

- A - Angle of Tilt
  - B - Beam Spread
  - C - Wiring Diag.- For RPS-326
  - D - Wiring Diag.- For RPS-500
  - E - Delay Controls - For RPS-326
  - F - Mounting Dimensions
- \* Dimension changes from 2.5" to 3.75" when ordered with 500 Analog Ranging card.

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### Ordering Code

Part Number	Range	Output
RPS-326-72	24" - 72"	Isolated Form C Relay
RPS-326-240	24" - 240"	Isolated Form C Relay
RPS-326-72-500	24" - 72"	0 - 10VDC and 4 - 20mA Analog
RPS-326-240-500	24" - 240"	0 - 10VDC and 4 - 20mA Analog
RPS-326-72-X	24" - 72"	Isolated Form C Relay - Explosion Proof
RPS-326-240-X	24" - 240"	Isolated Form C Relay - Explosion Proof
RPS-326-72-500-X	24" - 72"	0 - 10VDC and 4 - 20mA Analog - Explosion Proof
RPS-326-240-500-X	24" - 240"	0 - 10VDC and 4 - 20mA Analog - Explosion Proof

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

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

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