

# RPS-300-T

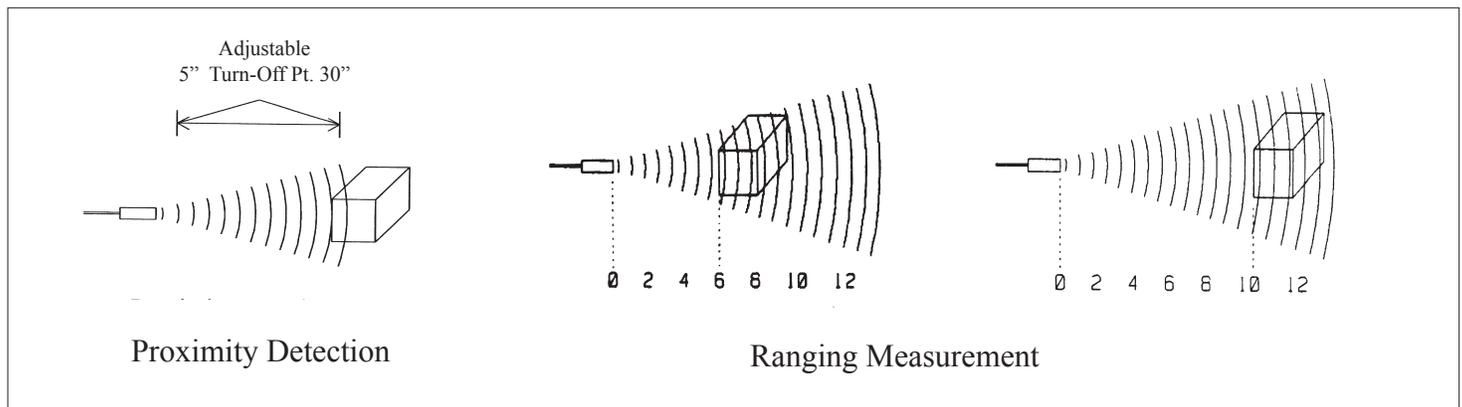
## Features

- Various Sensing Ranges
- RPS-500 Compatible
- Narrow Sensing Beam
- 3-Way Power Operation
- High Frequency
- Isolated Form C Relay Output
- LED Indicator
- Small Electronic Controller
- Sealed Transducer
- Small Remote Transducer

ing 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-300-T sensor operates at a frequency of 180kHz. This sensor has a narrow sensing beam. Sensing ranges available for the RPS-300-T include 4 - 14" and 5 - 36". Mounting flanges, LED indicator, ranging potentiometer and 6 foot transducer cable are included. Optional cable lengths are available.



The RPS-300-T is a high frequency, sealed transducer unit best suited for environments where chemicals or weld splatter is a problem. The transducer head is constructed of a seamless Teflon body and sensing face. The remote transducer allows for mounting of the sensor head in cramped spaces while the controller is out of the way. The rang-



## Proximity Detection

Proximity detection is the detection of an object in a given range. The detection range of the RPS-300-T 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-300-14-T.

## Ranging Measurement

With the addition of the RPS-500 card, Analog outputs of 0 - 10V and 4 - 20mA are provided. Precise distances of an object moving to and from the transducer are measured via time intervals between power transmitted and reflected bursts of ultrasonic sound. The example shows a target detected at 6" from the transducer and moving to 10". The distance change is continuously calculated and outputted. Ranging Option is indicated by following the part number with (-500). (Example: RPS-300-36-T-500)

# Specifications:

Operational Range:	Adjustable 4 - 14"	Adjustable 5 - 36"
Power Input:	120VAC	15 - 24VDC
	<i>Only 120VAC or 24VDC with 500 Analog card.</i>	12VDC Regulated
		12 - 17VAC
Input Current:	30mA	
Input with 500 card:	50mA	
Ambient Temperature:	0 - 60°C or 32 - 140°F	
Controller :	Metal Encloser	
Transducer Housing:	Teflon	
Output: N.O., N.C.	Isolated Form C Relay	0.5 Amp Maximum at 120VAC
		12VDC Logic Signal
Output with 500 card:	0 - 10V, 4 - 20mA Analog Outputs with Zero, Span, Sample, and Hold controls.	
Transducer Frequency:	180kHz	
Response Time:	4 - 14"	5 - 36"
	On = 30ms - 2s	On = 50ms - 2s
	Off = 30ms - 2s	Off = 50ms - 2s
Weight of Controller:	34.2 ounces	
Weight of Transducer:	4.5 ounces	

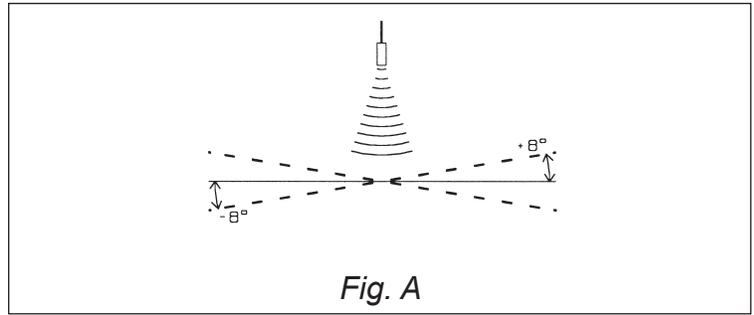


Fig. A

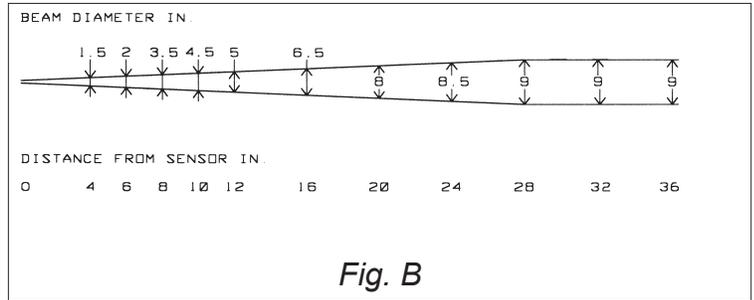


Fig. B

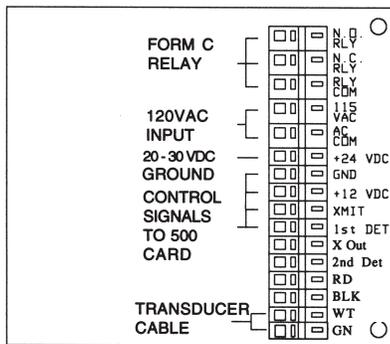


Fig. C

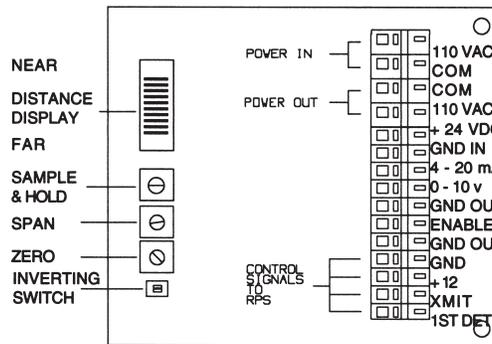


Fig. D

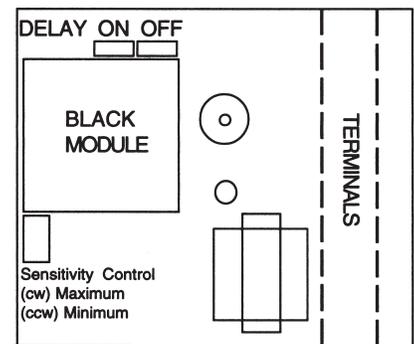


Fig. E

## Figure:

- A - Angle of Tilt
- B - Beam Spread
- C - Wiring Diag. - For RPS-300
- D - Wiring Diag. - For RPS-500
- E - Controls - For RPS-300
- F - Mounting Dimensions

\* Dimension changes from 2.5" to 3.75" when ordered with 500 Analog Ranging card.

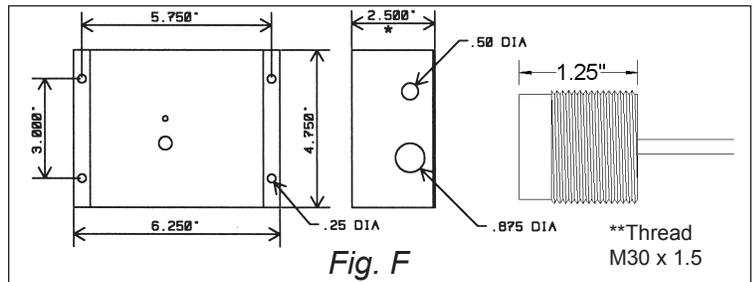


Fig. F

PART NUMBER	RANGE	OUTPUT
RPS-300-14-T	4 - 14"	Isolated Form C Relay
RPS-300-36-T	5 - 36"	
RPS-300-14-T-500	4 - 14"	0 - 10V and 4 - 20mA Analog
RPS-300-36-T-500	5 - 36"	