



# RPS-150

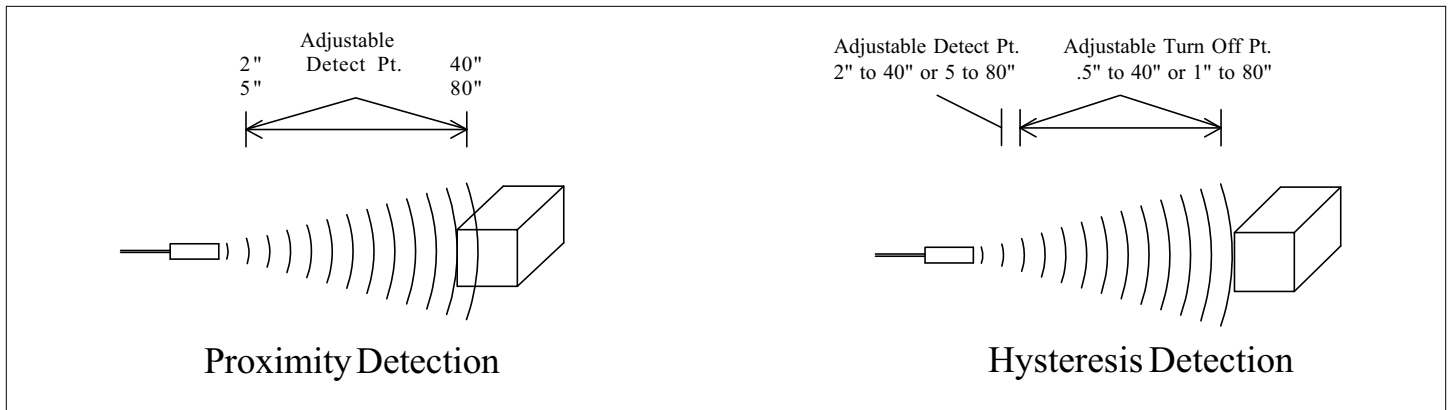
## Features

- Adjustable Sensing Range
- Adjustable Hysteresis
- Broad Sensing Beam
- 105-130VAC or 20-30VDC Power
- Range 2 to 40", or 5 to 80"
- Isolated N.O. N.C. Solid State Relays
- LED Indicator
- Limit Switch Style Housing

The RPS-150 is a self-contained, wide beam angle ultrasonic sensor. The advantage of this sensor is that the target does not have to be at right angles with the sensor in order to be detected. A flat target can tilt up to 35 degrees and still be detected. For set-up purposes an LED indicator is provided. When in the non-detect state the LED is Green and when in the detect state the LED is Red. The RPS-150 can be operated in two modes: a proximity and a hysteresis mode, described below. The frequency of operation is 38.5kHz. There are two ranges available in this model: 2" to 40" or 5" to 80". The sensor is available with a 120VAC power input or a 20 - 30VDC input. It



also features a quick disconnect receptacle. The housing is constructed of plastic valox and has standard 30mm X 60mm limit switch mounting dimensions, as well as side holes for mounting the sensor on its side. The output consists of two solid state relays N.O. N.C., and can switch 2 - 130VAC or VDC up to 100mA DC or 50mA AC continuous. The relay outputs are short circuit protected and isolated up to 1500 volts rms.



## Proximity Detection

Proximity detection is the detection of an object at a given distance. The detection range of the RPS-150 is controlled by the "Range Control" potentiometer. Any object within the desired range is detected, while objects out of range are ignored. The range of the RPS-150 is either 2" to 40" or 5" to 80". This means that in the proximity mode the object will be detected from whatever detect point is set to the minimum sensing range of the sensor, either 2" or 5". The hysteresis control potentiometer needs to be off by turning the pot counterclockwise.



# Specifications:

Operational Range:	Adjustable 2" to 40" Adjustable 5" to 80"
Hysteresis:	Adjustable .5" to 40" Adjustable 1" to 80"
Power Input:	105 - 130VAC or 20 - 30VDC
Input Current:	15 mA VAC or 35 mA VDC
Ambient Temperature:	0°C to 60°C or 32°F to 140°F
Humidity:	0% - 95% Non-Condensing
Transducer Housing::	Plastic Valox Limit Switch Style
Outputs:	2 Solid State Relays N.O. N.C. Isolated 1500Vrms 2 to 130VAC or VDC 100mA DC or 50mA AC Continuous Short Circuit Protected
Transducer Frequency:	38.5kHz
Response Time:	2" - 40"      5" - 80" On      60mS      120mS Off      60mS      120mS
Weight:	9.5 ounces
Accuracy:	.187" or .5% (.005) of the range, whichever is greater at 70 degrees F.

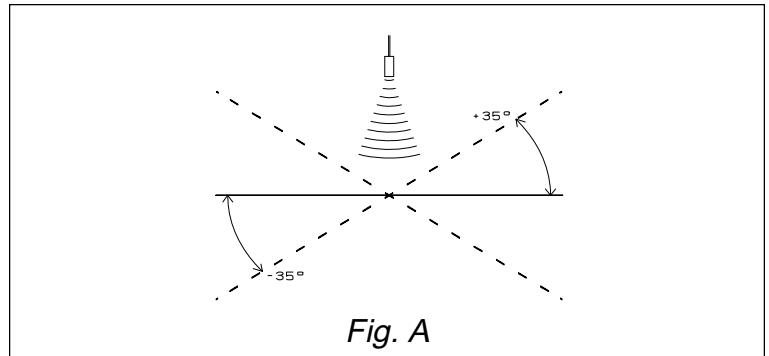


Fig. A

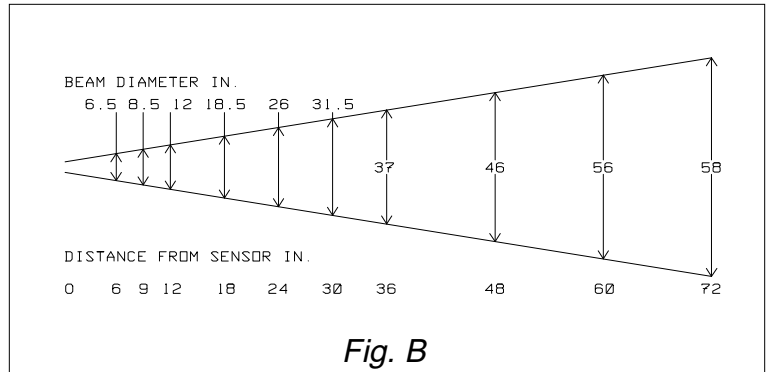


Fig. B

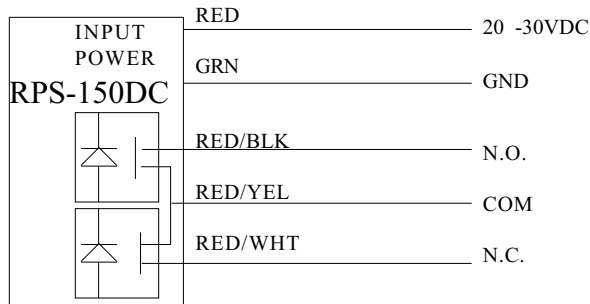


Fig. C

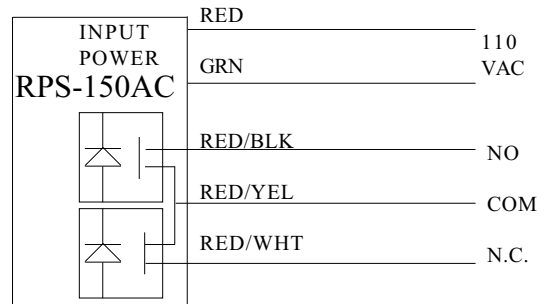


Fig. D

## Figure:

- A - Angle of Tilt
- B - Beam Spread
- C - Wiring Diag. For RPS-150DC
- D - Wiring Diag. For RPS-150AC
- E - Connector Diagram (Male View)
- F - Mounting Dimensions

NOTE: See Page 51 for additional information on "QD" cable. For Optional On / Off Delays Consult Factory. "QD" cables are sold separately.

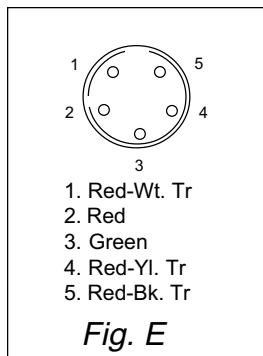


Fig. E

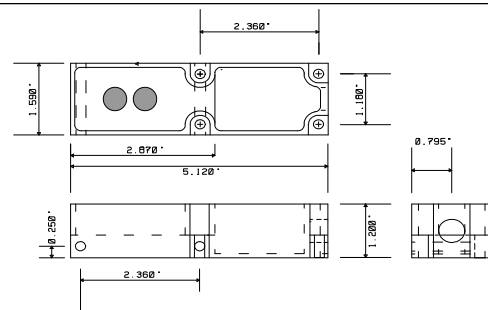


Fig. F

PART NUMBER	RANGE	OUTPUT
RPS-150AC-40 RPS-150AC-80	2" - 40" 5" - 80"	Isolated Form C Relay - Quick Disconnect
RPS-150DC-40 RPS-150DC-80	2" - 40" 5" - 80"	Isolated Form C Relay - Quick Disconnect
5000116-2 5000116-4		6' Cable for Quick Disconnect 20' Cable for Quick Disconnect



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