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# **RPS-400-6P**

#### Features

- Background Suppression
- Compact Size
- Quick Response Time
- Adjustable Sensing Range
- Detects Translucent or Opaque
  - Objects Independent of Color

- 20 30VDC Power Input
- 2 6" Sensing Range
- LED Indicator
- NPN Open Collector Output
- Narrow Sensing Beam

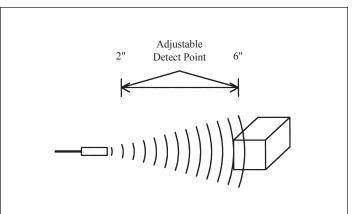
The RPS-400-6P is a compact, high frequency sensor. It was introduced to the Migatron family of ultrasonic sensors to better meet the needs of the machine manufacturing industry.

This sensor has a wide array of application solutions not found in other proximity sensor technologies. The RPS-400-6P has an adjustable 2 - 6" sensing range with background suppression (meaning any object within the desired range is detected, while objects out of the desired range are ignored). It cannot be affected by changes in target color or material. The RPS-400-6P is capable of detecting vibrating and/or tilting targets. A response time of no more than 2.1ms and an operating frequency of 400kHz makes the RPS-400-6P a repeatable and accurate high-speed sensor.

The RPS-400-6P is a three wire NPN transistor output device. The transistor can switch 30VDC at 50mA continuously. It has a molded PBT plastic case that is filled with epoxy potting material. The transducer face is glass filled epoxy. A 6 foot cable comes standard with the RPS-400-6P. Special cable lengths or connectors are also available for OEM applications.

Like all Migatron ultrasonic sensors, the RPS-400-6P is ideal for detecting clear objects. The sensor can also operate in dusty environments making it ideal for rugged conveyors, PC board handling equipment and fillers.





### **Proximity Detection**

Proximity detection is the detection of an object at a given distance. The detection range of the RPS-400-6P is controlled by the Range Control potentiometer located on the side of the sensor. Any object within the desired range is detected, while objects out of range are ignored (background suppression). The detect point is independent of the objects size, material and reflectivity.

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## **Specifications:**

Operational Range:	Adjustable 2 - 6"		L I
Power Input:			
Input Current: 25mA Typical			
Ambient Temperature: -18 - 60°C or 0° -		140°F	-6° Fig. A
Humidity:	umidity: 0 - 95% Non-Condensing		
Housing	using PBT Plastic with glass filled epoxy sensing face.		BEAM DIAMETER
Output:	NPN Open Collector Transistor 30V max/50mA continuous		.5".75" 1.0" 1.0" 1.0"
Transducer Frequency: 400kHz			2" 3" 4" 5" 6"
Response Time:	esponse Time: 0.2ms min / 2.1ms max		DISTANCE FROM SENSOR
Weight:	2 ounces (cable not included)		Fig. B
	INPUT POWER <b>RPS-400-6P</b>	RED BLACK WHITE	20 - 30VDC GND NPN
Fig. C			
		Fig	и. С
<b>Figure:</b> A - Angle of Tilt B - Beam Spread C - Wiring Diag F D - Mounting Dime		Fig	f. C
A - Angle of Tilt B - Beam Spread C - Wiring Diag F	nsions	Fig RANGE	0.710* 0.710*

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