

## Interactive Catalog Supplements Catalog PDFs

If you need detailed product information, or help choosing the right product for your application, see our [Interactive Catalog](#). Use the [Interactive Catalog](#) to access the most complete and up-to-date information available.

The [Interactive Catalog](#) provides an extensive collection of product specifications, application data, and technical literature that can be searched based on criteria you select.

This PDF catalog information was published in November 2000.



Sensing and Control  
[Interactive Catalog...](#)

**Click this icon to try  
the Interactive Catalog.**

---

### Sensing and Control

Honeywell Inc.

11 West Spring Street

Freeport, IL 61032

# Ultrasonic Sensors


## 30 mm Diameter Analog

940 Series

### FEATURES

- Measuring range up to 2000 mm (78.74 in.)
- High repeatability

### ORDER GUIDE

Sensor Package Style	Sensing Range* mm (in.)	Analog Output	Termination	Catalog Listing
30 mm dia. Stainless Steel 	300 - 2000 (11.81 - 78.74)	1.5 - 10 V	Cable	940-A4Y-AD-1C0-130E
	150 - 1200 (5.90 - 47.24)	1.25 - 10 V	Cable	940-A4Y-AD-1C0
			Connector	940-A4V-AD-1C0

\* Standard target is 120 mm square of mild steel perpendicular to ultrasonic beam.

### SPECIFICATIONS

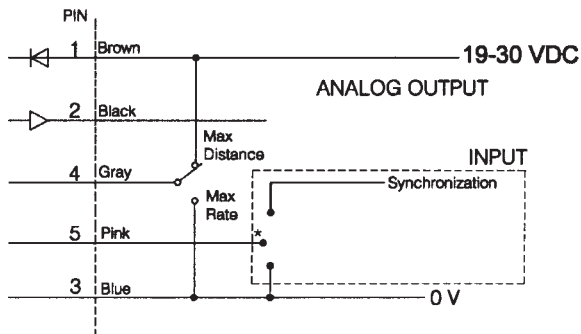
Catalog Listings	940-A4Y-AD-1C0-130E		940-A4Y-AD-1C0 940-A4V-AD-1C0	
	Max. Range	Max. Rate	Max. Range	Max. Rate
Max. Sensing Distance	2000 mm (78.74 in.)	1000 mm (39.37 in.)	1200 mm (47.2 in.)	600 mm (23.6 in.)
Min. Sensing Distance	300 mm (11.8 in.)		150 mm (5.91 in.)	
Beam Angle	8°		10°	
<b>POWER SUPPLY</b>				
Supply Voltage	19 - 30 VDC			
Supply Current	<20 mA without load			
Circuit Protection	Reverse polarity			
<b>OUTPUT CHARACTERISTICS</b>				
Load Current	10 mA max.			
Switching Frequency	6 Hz		11 Hz	
Repeatability	±2 mm		±1 mm	
Linearity	<0.2%			
Output Adjustment	4 Turn Potentiometer			
Output Mode	Max. Range or Max. Rate selected by wiring terminal connection			
Circuit Protection	Short Circuit			
<b>ENVIRONMENTAL</b>				
Operating Temperature	0 to 50°C (32 to 122°F)			
Storage Temperature	0 to 70°C (32 to 158°F)			
Sealing	IP 65			
<b>SPECIAL FEATURES</b>				
Hold Input	Stops transmission and reception of sensor when input is connected to 0 VDC. Analog output would be zero.			
Synchronization Input	Avoids mutual interference from several ultrasonic sensors (external synchronization unit required; see Accessories)			
LED Indicator	Illuminates when sensor detects a target			

# Ultrasonic Sensors

940 Series

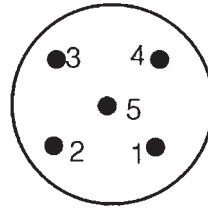
## 30 mm Diameter Analog

### WIRING DIAGRAM



\*Normal operation with connection +19-30 VDC

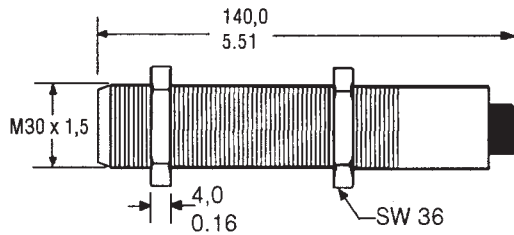
### CONNECTOR VERSION ONLY



Pin	Color
1	BRN
2	WHT
3	BLU
4	BLK
5	GRAY

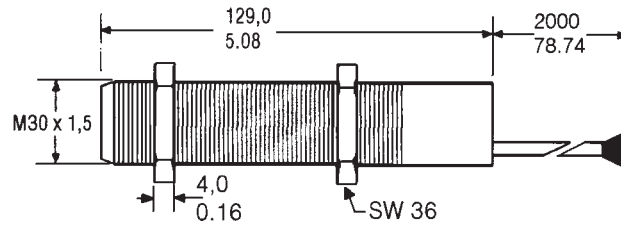
### MOUNTING DIMENSIONS (For reference only)

#### 940-A4V-AD-1C0



#### 940-A4Y-AD-1C0-130E

#### 940-A4Y-AD-1C0



### ACCESSORIES

	Catalog Listing	Feature
Mounting clamp, 30 mm sensor	43178389-030	Allows mounting to a flat surface
Beam deflector	43192871-001	Allows right angle mounting (Approx. dim. 50 x 170 mm)
Focusing beam deflector	43192871-002	Reduces beam angle by approximately 1/2
Compact deflector	66195116-001	Allows right angle mounting (Approx. dim. 35 x 52 mm)
2 meter cable, Straight connector	RKT5-612/2M	Used for wiring to connector version
5 meter cable, Straight connector	RKT5-612/5M	Used for wiring to connector version
2 meter cable, Right angle connector	RKWT5-612/2M	Used for wiring to connector version
5 meter cable, Right angle connector	RKWT5-612/5M	Used for wiring to connector version
Synchronization unit	55000001	Controls up to 100 sensors

Proximity