

Mount the sensor firmly so that the object to be detected is never within 119.4 mm (4.70 inches) of the face of the sensor. For best results the sensor face should be parallel to the object surface. Also the sensor should be away from air currents.

Technical drawing of the M30 x 1.5 mm-6g threaded section of the probe. The drawing shows a side view of the probe with the following dimensions:

- Overall length: 94.24 mm [3.710]
- Length of the threaded section: 84.34 mm [3.320]
- Length of the unthreaded section: 20.10 mm [.790]
- Threaded section length: 78.00 mm [3.070]
- Threaded section diameter: 34.70 mm [1.365] DIA
- Threaded section length: 28.20 mm [1.110] DIA
- Threaded section length: 28.20 mm [1.110] DIA

The drawing also indicates the thread specification: M30 x 1.5 mm-6g THREADS.

**NOTE:**  
The load must be connected between the analog signal and the analog return. Do not connect the analog return to the other grounds or chassis grounds.

Model: AC130	Straight, 4-conductor, Shielded, 5 meters (16 feet)
Model: AC132	Right-angle, 4-conductor, Shielded, 5 meters (16 feet)
Model AC233	Mounting bracket, right angle
Model AC250-n	Pipe mounting reducer 30mm-n (NPT) n=(1=1.25", 2", 3", 4")
Model AC251-n	Flange mounting adapter 30mm-n (NPT) n=(2=2", 3", 4")
Model AC441A	Handheld configurator

**MODEL AC233  
SINGLE PROBE  
BRACKET 30mm**

Technical drawing showing three views of the Model AC233 Single Probe Bracket 30mm:

- Top View:**
  - Overall width: 44.45 mm [1.750]
  - Overall height: 38.10 mm [1.500]
  - Distance from left edge to center of hole: 29.36 mm [1.156]
  - Distance from right edge to center of hole: 28.60 mm [1.126]
  - Distance from bottom edge to center of hole: 7.14 mm [.281] (2x)
  - Radius of hole: R .76 mm [.030] (4x)
  - Radius of bracket: R 3.18 mm [.125]
  - Slot opening for wire cable to pass thru ref.: 6.35 mm [.250]
- Front View:**
  - Overall height: 38.10 mm [1.500]
  - Overall width: 44.45 mm [1.750]
  - Distance from bottom edge to center of hole: 22.22 mm [.875]
  - Radius of hole: R 3.18 mm [.125]
- Side View:**
  - Overall height: 60.33 mm [2.375]
  - Overall width: 38.10 mm [1.500]
  - Radius of bracket: R 1.60 mm [.063]
  - Wall thickness: 2.36 mm WALL [.093] TYP REF.

## General Specifications

**Power Supply:** +15 to 24 VDC @ 80 mA, excluding load

**Analog Output:** min 0 V - max 10 V

**Load Resistance:** 1k $\Omega$  to  $\infty$

**Operating Temperature:**

0°C to 50°C (32°F to 122°F) @ 100% relative humidity

**Sensing:**

Range: 119.4 to 2,006.6 mm (4.70 to 79.00 inches)

Limit Adjustment Resolution: 0.08 mm (0.003 inch)

Sensor Angle with respect to smooth flat surface: 90°  $\pm$  10°

Repeatability:  $\pm$  0.86 mm (0.034 inch) from smooth flat surface at constant air temperature

**Sensor Cable Length:** 5 Meters (16 Ft.) Standard

**Sensor Housing Material:**

Case: PEI

Face: FDA approved silicone rubber

**Sensor Ratings and Approvals**

NEMA 4X (Indoor Use Only) 5, 12, 12K, 13, and IP67

Installation/Overvoltage Category: II

This Product is UL Listed if powered by a Class II Power Supply and protected by a 2.0A Max UL Listed Fuse

Literature and application engineering assistance are provided by Hyde Park and its authorized distributors to aid the customer in selecting the product for an application. The customer, however, is responsible for determining the suitability of the product in the application.

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# SUPERPROX®

## SC906A-4V0

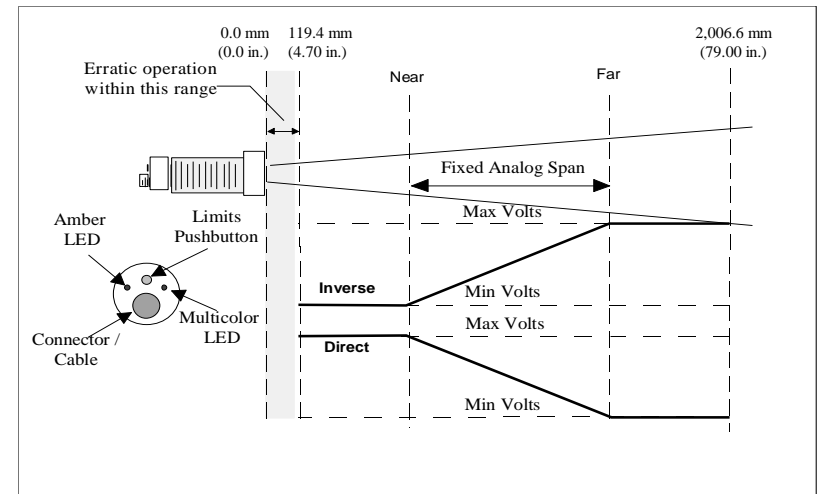
### Ultrasonic Analog Output Sensor

### 30 mm, Configurable Unit

### Analog Voltage Output

## OPERATOR INSTRUCTIONS

This self-contained, reconfigurable ultrasonic sensor provides an analog output. Objects that are transparent, opaque, plastic, glass, metal, liquid, or solid can be detected within the sensing range. A multicolor LED indicates the zone of the object. This sensor is configured by connecting it to an AC441A unit and running SUPERPROX+ software on your PC.



## Setting the Window Limits

Depress the SETUP pushbutton (the multicolor LED rapidly flashes amber to indicate the pushbutton is pressed) until the multicolor LED flashes green (about 3 seconds), and then release the SETUP pushbutton. The multicolor LED continues flashing green indicating the sensor is waiting for the first limit. Align a flat object parallel to the sensor face at the desired distance position for either the Far or Near window limit, and press the SETUP pushbutton once. Upon release of the SETUP pushbutton, the multicolor LED flashes amber indicating the first limit is set and the sensor is waiting for the second limit. Align a flat object parallel to the sensor face at the desired position for the second window limit and press the SETUP pushbutton once. Upon release of the SETUP pushbutton, the multicolor LED turns to the color that indicates where the object is located. The sensor has no timeout for setting limits. While the SETUP pushbutton is depressed, the multicolor LED turns amber to indicate the sensor detects the object. If the sensor does not detect the object, the multicolor LED is red while the SETUP pushbutton is depressed, and when the SETUP pushbutton is released after not detecting an object, the multicolor LED flashes red 2 seconds, and then requests that limit again by flashing green for the first limit or flashing amber for the second limit. The limits are saved in nonvolatile memory.

## ⚠ WARNING

### UNINTENDED OPERATION

Do not use this product to detect objects within the deadband.

Failure to follow this instruction can result in death, serious injury or equipment damage.