## Bolt-On Thermistor Sensor with Aluminum Flag Housing

Omega's two-wire ON-931 sensor features an improved housing design and increased gauge duplex wire which gives improved strain relief and pull strength. The bolt hole accepts #3 and #4 screws, and other screw sizes are available. These can be installed on flat surfaces by either being bolted or cemented onto the surface. Applications for this type of sensor include product performance testing; climate control/HVAC; printed circuit board manufacturing and cable manufacturing; environmental chamber temperature measurement.



## Features

- **Redesigned housing for improved strain relief**
- **Duplex wire now used for better wire protection**
- **Standard hole for #3 and #4 screw. #5, #6, and #8 screw sizes also available**
- **Small aluminum housing allows for installation on most flat surfaces**
- **Sensor can be bolted or cemented into place**
- **Accuracy is up to ± 0.1°C**
- **Temperature range is -80 to 100°C**
- **Resistance value: 2252, 3000, 5000, 10,000 or 30,000 Ohms**
- **Stripped ends standard, with phone plug connector available**

## Specifications

| | |
|---|---|
| **Process Temperature Range** | -80 to 100°C |
| **Resistance and Accuracy** | 2252, 3000, 5000, 10,000 and 30,000 Ohms<br>Accuracy is ± 0.1°C or 0.2°C |
| **Connection Type** | Stripped ends. Phone plug available (add "-PP" as suffix) |
| **Dimensions and mounting screw** | Barrel dimensions: 0.562 in. by 0.190 in.<br>Mounting body dimension: 0.31 in. x 0.31 in.<br>Screw sizes: #3 and #4 standard; other holes sizes available for #5, #6 and #8 |
| **Cable length** | 40 inches, with longer lengths available |
| **Cable material** | PFA coated duplex, 26 AWG |
| **Mounting Style** | Bolt-on or Cement-on |

**Ordering Example: ON-931-44004-40** Surface Thermistor probe with 2252 Ω thermistor element, with 0.116 in. hole for #3 or #4 screw. 40-inch PFA-coated leads, stripped ends.

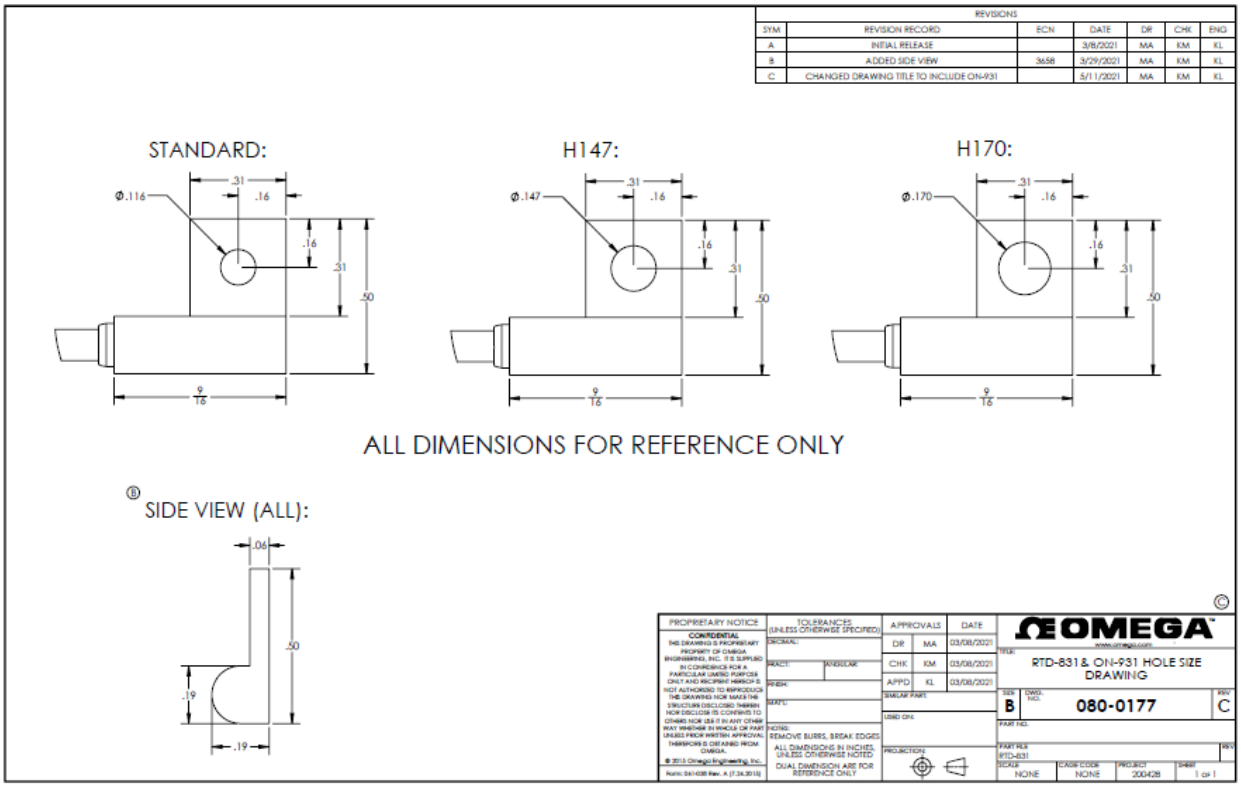
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| ON-931 Available Resistances | | |
|---|---|---|
| Resistance Suffix | Range and Accuracy | Resistance Value |
| -44004 | -80 to 100°C, ± 0.2°C | 2252 Ω |
| -44005 | -80 to 100°C, ± 0.2°C | 3000 Ω |
| -44006 | -80 to 100°C, ± 0.2°C | 10,000 Ω |
| -44007 | -80 to 100°C, ± 0.2°C | 5000 Ω |
| -44008 | -80 to 100°C, ± 0.2°C | 30,000 Ω |
| -44033 | -80 to 75°C, ± 0.1°C | 2252 Ω |
| -44030 | -80 to 75°C, ± 0.1°C | 3000 Ω |
| -44034 | -80 to 75°C, ± 0.1°C | 5000 Ω |
| -44031 | -80 to 75°C, ± 0.1°C | 10,000 Ω |
| -44032 | -80 to 75°C, ± 0.1°C | 30,000 Ω |

| ON-931 Screw size Designation | | |
|---|---|---|
| **Screw Size Suffix** | **Hole Dimension** | **Screw size** |
| None | 0.116 in. | #3 and #4 |
| -H147 | 0.147 in. | #5 and #6 |
| -H170 | 0.170 in. | #8 |

**Ordering Example: ON-931-44033-40-H147:** Surface Thermistor probe with 2252-ohm high accuracy thermistor element, with 0.147 in. hole for #5 and #6 screw, 40 in. leads and stripped ends

## DRAWING


REVISIONS
SYM REVISION RECORD ECN DATE DR CHK ENG
A INITIAL RELEASE 3/8/2021 MA KM KL
B ADDED SIDE VIEW 3658 3/29/2021 MA KM KL
C CHANGED DRAWING TITLE TO INCLUDE ON-931 5/11/2021 MA KM KL
STANDARD:
H147:
H170:
ALL DIMENSIONS FOR REFERENCE ONLY
SIDE VIEW (ALL):
RTD-831& ON-931 HOLE SIZE DRAWING
080-0177
B
C