

# A04 | PFA Sheath Miniature RTD

## Specifications

The A04 is a uniquely designed RTD incorporating an extremely small profile with a completely non-metallic PFA sheath. Originally designed for temperature measurements inside small vials, the A04 handles both cryogenic and elevated temperatures, making it an ideal sensor for lab or small sample applications. The one-piece flexible sheath offers a diameter of just 0.080" and easy cleanability with no place for contaminants to "hide". The sheath design maximizes response time by eliminating the thermal mass of a traditional stainless steel sheath.

### Features and Benefits:

- **Application:** Direct or indirect immersion in cryogenic and elevated temperature applications. Easily "snaked" into difficult to reach areas. Ideal for vial or sample cell measurements.
- **Accuracy:** Precision, 0.05%
- **Sheath:** 0.080" diameter, PFA
- **Sensitive Length:** 0.30"
- **Element/Lead wire Configuration:** Single 3 or 4 wire
- **Wire:** 32 AWG PTFE insulated wires with integrated PFA sheath
- **Cleanability:** PFA sheath with no crevices to trap contaminants

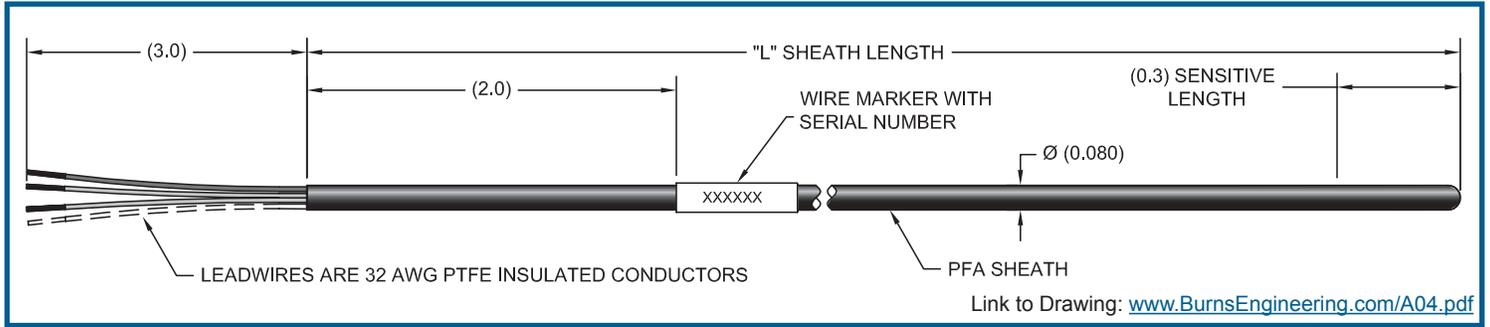
### Specifications:

- **Element Configuration:** Single, 100 ohms at 0°C, 0.00385 ohm/ohm/°C nominal alpha
- **Temperature Range:** Sensor and Cable
  - » Precision Accuracy: -196°C to 200°C
- **R0 interchangeability:**
  - » Precision Accuracy:  $R0 \pm 0.05$  ohms
- **Repeatability and Hysteresis:** Maximum change at 0°C after 10 thermal cycles over the operating temperature range.
  - » Precision Accuracy:  $\pm 0.05^\circ\text{C}$  (0.02Ω)
- **Long Term Stability:** Maximum change at 0°C after 1000 hour soak at 200°C
  - » Precision Accuracy:  $\pm 0.03^\circ\text{C}$  (0.01Ω)
- **Insulation Resistance:** 10 mega-ohms minimum at 100 VDC at room temperature



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## Ordering Information



All dimensions in inches

A04- PFA Sheath Miniature RTD

**RTD Accuracy**

05 Precision, +/- 0.05% of resistance at 0 degrees C

**Element Configuration**

- A Three wire single
- B Four wire single

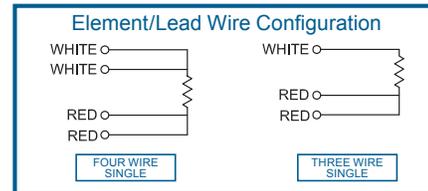
**"L" Sheath Length**

120	12.0 inches
240	24.0 inches
360	36.0 inches

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Example Part Number: A04-05B240

NOTE: For longer cable lengths please refer to A06.



Customized miniature sensors, designed for your application.

**Bioreactor**

Stable and repeatable temperature measurement for disposable bioreactor bags. Small, .083" diameter, fits into existing wells and secures via a Luer lock style connector.

Contact us to discuss your specific application.