

A03 | 1/4" Miniature RTD

Specifications

The A03 is a full-service RTD in a compact package. Ideally suited for applications demanding high accuracy and repeatability, but with limited space, the A03 delivers the confidence and dependability you've come to expect from a Burns RTD. Built with an industry standard 0.25" diameter stainless steel sheath, the A03 easily installs in existing guide tubes and thermowells. Designed to perform in subzero as well as elevated temperatures, this sensor is available in multiple configurations to meet your unique application needs.

Features and Benefits:

- **Application:** Direct or indirect immersion for freezers, incubators or anywhere in between where an accurate measurement and a small profile sensor is required.
- **Accuracy:** Precision, 0.05% and Standard, 0.10%
- **Sheath:** 316 stainless steel, 0.25" diameter, 1.25" length
- **Sensitive Length:** 0.40"
- **Element/Lead Wire Configuration:** Single 3 or 4 wire and dual 3 wire
- **Cable:** 22/26* AWG stranded PTFE insulated wires with PFA jacket
- **Cleanability:** 316 stainless steel sheath and PFA cable jacket

*22 AWG for single element designs, 26 AWG for dual element design

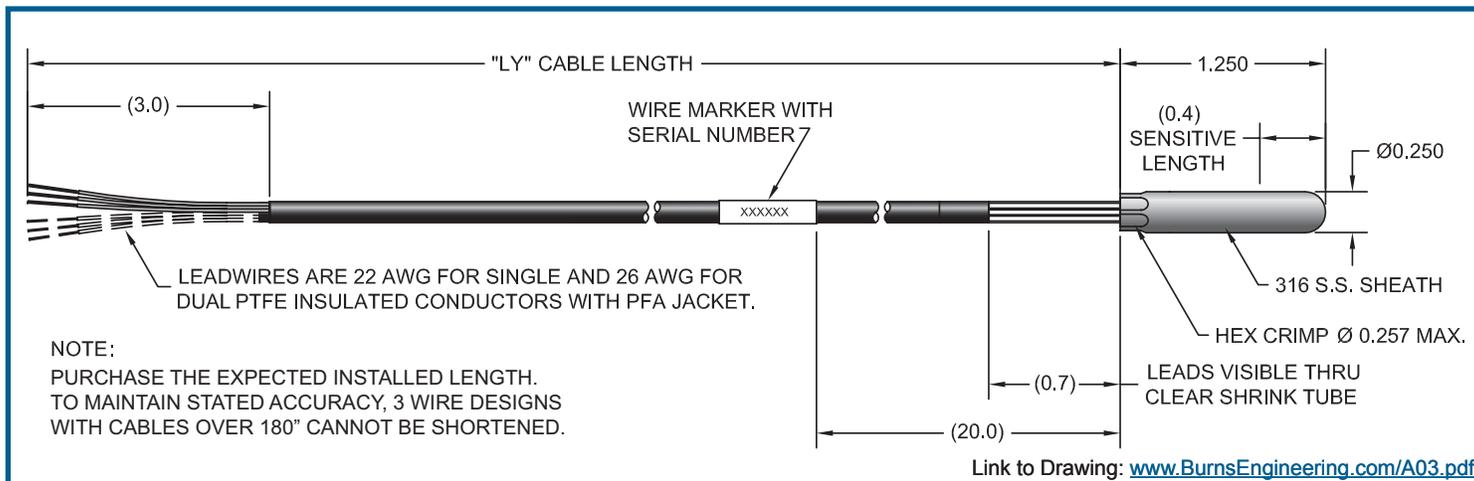
Specifications:

- **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
 - » Standard Accuracy: -50°C to 200°C
- **R0 interchangeability:**
 - » Precision Accuracy: $R0 \pm 0.05$ ohms
 - » Standard Accuracy: $R0 \pm 0.10$ 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)
 - » Standard Accuracy: $\pm 0.10^\circ\text{C}$ (0.04Ω)
- **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)
 - » Standard Accuracy: $\pm 0.26^\circ\text{C}$ (0.10Ω)
- **Insulation Resistance:** 10 mega-ohms minimum at 100 VDC at room temperature



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Ordering Information



All dimensions in inches

A03- 1/4" Miniature RTD

RTD Accuracy

- 05 Precision, +/- 0.05% of resistance at 0 degrees C
- 10 Standard, +/- 0.10% of resistance at 0 degrees C

Element Configuration

- A Three wire single
- B Four wire single
- C Three wire dual

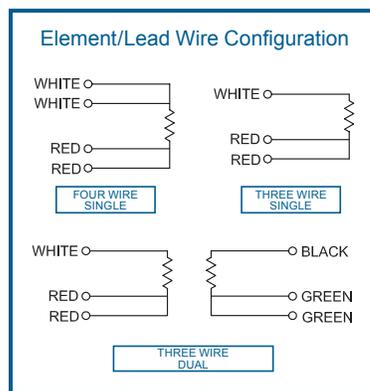
"L" Cable Length

- 060 60.0 inches
- 120 120.0 inches
- 180 180.0 inches
- 240 240.0 inches

Specify Cable Length in 12 inch increments

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Example Part Number: A03-05B180



Customized miniature sensors, designed for your application.

Shallow Immersion

This thermocouple configuration allows for accurate temperature measurement of shallow fluid level in a vial. The coiled mineral insulated cable allows for flexibility, is completely waterproof, and easily seals through environmental chamber walls.

Contact us to discuss your specific application.