# Wire-wound & Thin-film Elements

## Overview: Wire-wound Elements

Use these elements for general purpose sensing in probes or equipment. PD models meet EN60751, Class B.

### Specifications

**Temperature range:** Some elements may be used down to -269°C in certain applications. Contact factory for advice on cryogenic use.

- **Element Body:** Glass-coated ceramic
- **Resistance Tolerance:** ± 0.1% at 0°C
- **Lead Length Tolerance:** ± 0.4" (10.2mm)
- **TCR:** 0.00385 Ω/Ω/°C
- **Element Diameter tolerance:** ±0.005" (0.13 mm)
- **Element Length tolerance:** ±0.06 (1.5 mm)
- **Repeatability:** ±0.1°C or better
- **Stability:** Drift less than 0.1°C/year (normal use)
- **Vibration:** Withstands 20 G’s minimum at 10 to 2,000 Hz.
- **Shock:** Withstands 100G’s minimum sine wave shock of 8 milliseconds duration

## Overview: Thin-film Elements

Thin film elements offer low cost and resistances to 10k Ω.

### Specifications

- **Tolerance:** ±0.12% (EN60751 Class B)
- **Material:** Aluminum oxide substrate with fused glass cover.
- **Dimensional tolerance:**
  - 400, 600°C elements: ±0.02" (0.5 mm).
  - SMT models: Length x Width ±0.008 (0.2 mm), Thickness ±0.004 (0.1 mm).
- **TCR:** 0.00385 Ω/Ω/°C.
- **Repeatability:** ±0.1°C or better.
- **Stability:** Drift less than 0.1°C/year in normal use.
- **Vibration:** Withstands 20 G’s minimum at 10 to 2,000 Hz.
- **Shock:** Withstands 100 G’s minimum sine wave shock of 8 milliseconds duration.