

백금 RTD 소자 (Platinum RTD Capsules)

RTDCAP 시리즈

- ✓ 4개의 온도 범위 선택 가능
- ✓ 100 또는 1000 Ω 선택 가능
- ✓ 2-, 3- & 4-선식 와이어 구성
- ✓ 내습성 (일부 모델)

RTD

0.086 - 0.125" 540
° C (1000 ° F)

Specifications

Standard Lead Length: 1 m (40")

Operating Temperature Range:

TFE Leads: -200 to 260°C
(-320 to 500°F)

Polyimide Leads: -200 to 350°C
(-320 to 660°F)

Fiberglass Leads: -75 to 510°C
(-100 to 950°F)

Moisture Resistant: -50 to 200°C
(-60 to 390°F)

Sensing Element: International grade thin film platinum, $\alpha = 0.00385 \Omega/\Omega/^\circ\text{C}$ per IEC 60751

Ice Point Resistance: $100.00 \pm 0.06 \Omega$ or $1000.0 \pm 0.6 \Omega$ at 0°C

Time Constant (Water at 3"/Second):

0.086 Diameter = 0.5 seconds

0.098 Diameter = 0.6 seconds

0.125 Diameter = 0.8 seconds

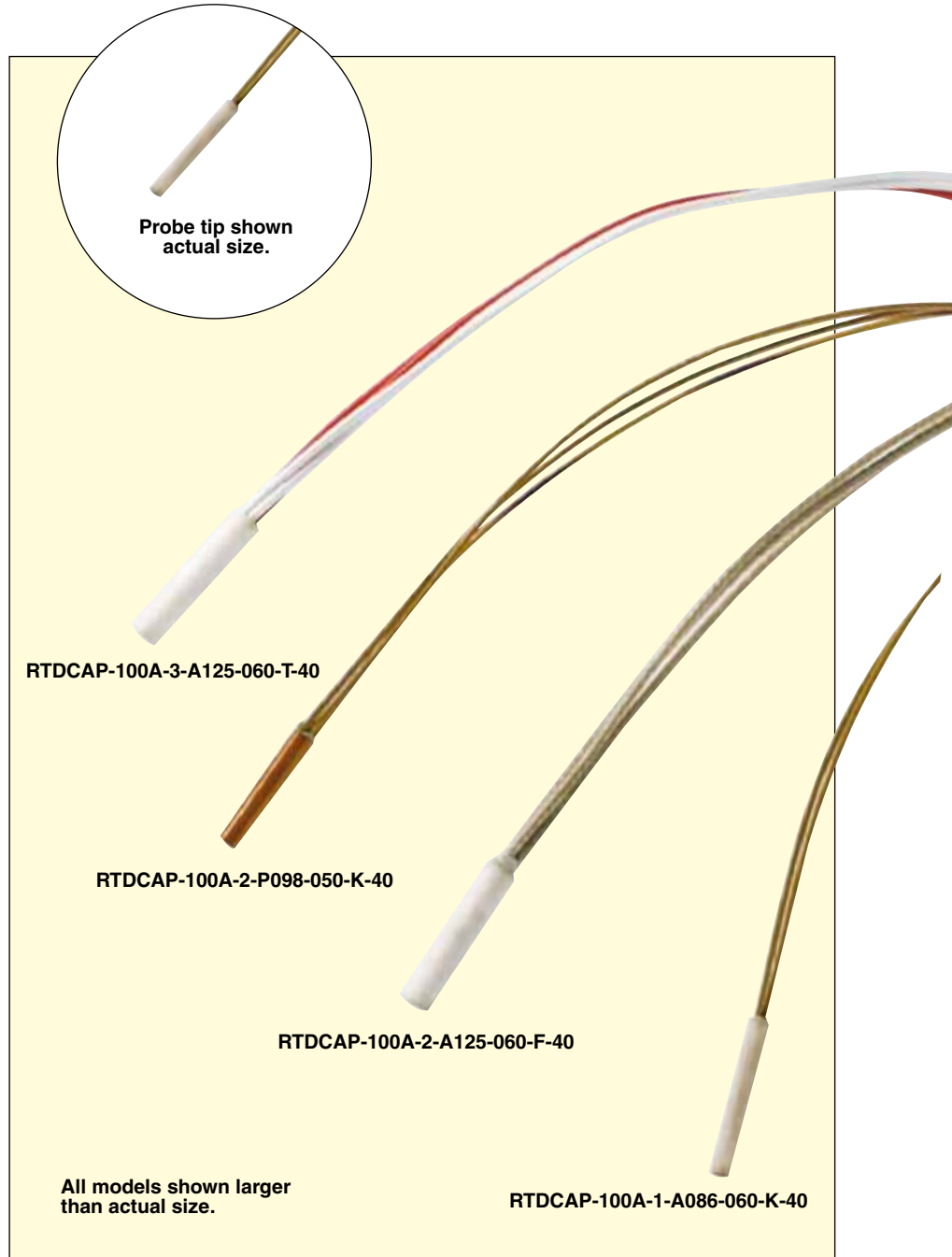
0.187 Diameter = 1.5 seconds

Self-Heating: Greater than 15 mW/°C

Interchangeability/Accuracy:

Class A ($\pm 0.15 + .002 \cdot |t|$) [where $|t|$ = absolute value of temperature in °C] between -50 and 300°C, Class B above and below these temperatures

Long Term Stability: Better than 0.05°C (0.02% of resistance) per 5 years, -50 to 300°C (-58 to 572°F), 0.25°C per year to 540°C (1004°F)



All models shown larger than actual size.

Insulation Resistance: Greater than 50 Megohms at 50 Vdc at 25°C (77°F)

Maximum Current: 100 Ω = 5 mA, 1000 Ω = 2 mA for limited self-heating; also suitable as self-heated sensors

Recommended Current: 1 mA maximum for temperature sensing

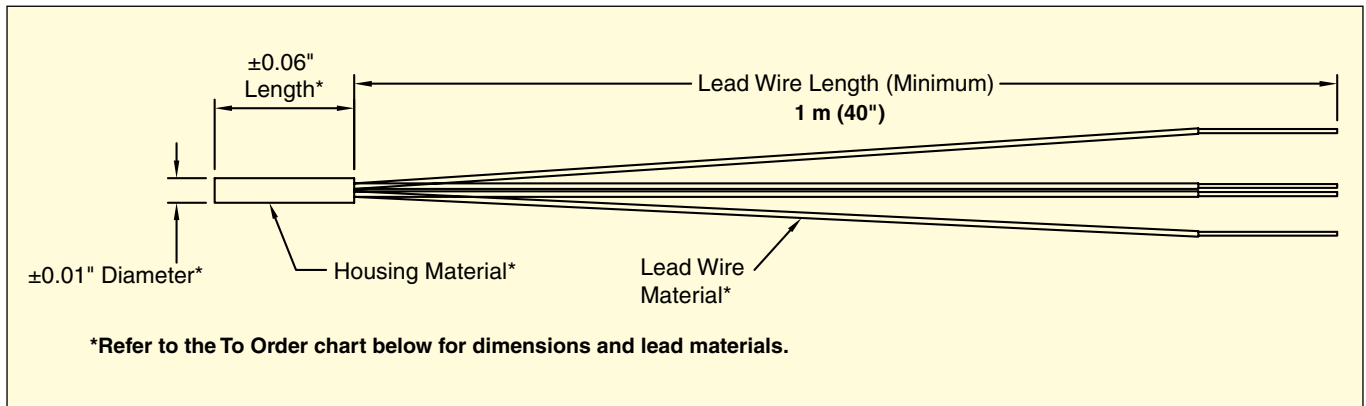
Case Materials: Alumina on 0.125 and 0.086 diameter, Polyimide [350°C (662°F)] on 0.098 diameter

Lead Materials, Nickel-Coated Copper-Insulated:

28 AWG Fiberglass:
Rated to 510°C (950°F)

28 AWG TFE: Rated to 260°C (500°F)

28 AWG Polyimide:
Rated to 350°C (660°F)



To Order	
Model No.	Description
RTDCAP-100A-1-A086-060-K-40	100 Ω RTD, 0.086" diameter x 0.6" long alumina with 28 AWG polyimide leads, 350°C (660°F), 2-wire only
RTDCAP-100A-2-P098-050-K-40	100 Ω RTD, 0.098" diameter x 0.5" long polyimide with 28 AWG polyimide leads, 350°C (660°F), 3-wire only**
RTDCAP-100A-2-P098-050-T-40	100 Ω RTD, 0.098" diameter x 0.5" long polyimide with 28 AWG TFE leads, 260°C (500°F), 3-wire only**
RTDCAP-100A-3-A125-060-T-40	100 Ω RTD, 0.125" diameter x 0.6" long alumina with 28 AWG TFE leads, 260°C (500°F), 4-wire only**
RTDCAP-100A-2-A125-060-T-40-M	100 Ω RTD, 0.125" diameter x 0.6" long alumina with 28 AWG PFTE leads, 200°C (390°F), 300 psi seal, moisture resistant, 3-wire only**
RTDCAP-100A-2-A125-060-F-40	100 Ω RTD, 0.125" diameter x 0.6" long alumina with 28 AWG fiberglass leads, 510°C (950°F), 3-wire only**
RTDCAP-1KA-1-A086-060-K-40	1000 Ω RTD, 0.086" diameter x 0.6" long alumina with 28 AWG polyimide leads, 350°C (660°F), 2-wire only
RTDCAP-1KA-2-P098-050-K-40	1000 Ω RTD, 0.098" diameter x 0.5" long polyimide with 28 AWG polyimide leads, 350°C (660°F), 3-wire only**
RTDCAP-1KA-2-P098-050-T-40	1000 Ω RTD, 0.098" diameter x 0.5" long polyimide with 28 AWG TFE leads, 260°C (500°F), 3-wire only**
RTDCAP-1KA-3-A125-060-T-40	1000 Ω RTD, 0.125" diameter x 0.6" long alumina with 28 AWG TFE leads, 260°C (500°F), 4-wire only**
RTDCAP-1KA-2-A125-060-F-40	1000 Ω RTD, 0.125" diameter x 0.6" long alumina with 28 AWG fiberglass leads, 510°C (950°F), 3-wire only**

** Note: 3- and 4-wire sensors can be modified by the customer for 2- and 3-wire applications by cutting off unneeded lead wires.

Ordering Example: RTDCAP-100A-2-P098-050-K-40, 100 Ω RTD, 0.098" diameter x 0.5" long polyimide with 28 AWG Kaptor® (polyimide) leads, 350°C (660°F), 3-wire maximum.

RTDCAP-1KA-2-P098-050-K-40, 1000 Ω RTD, 0.098" diameter x 0.5" long polyimide with 28 AWG polyimide leads, 350°C (660°F), 3-wire.