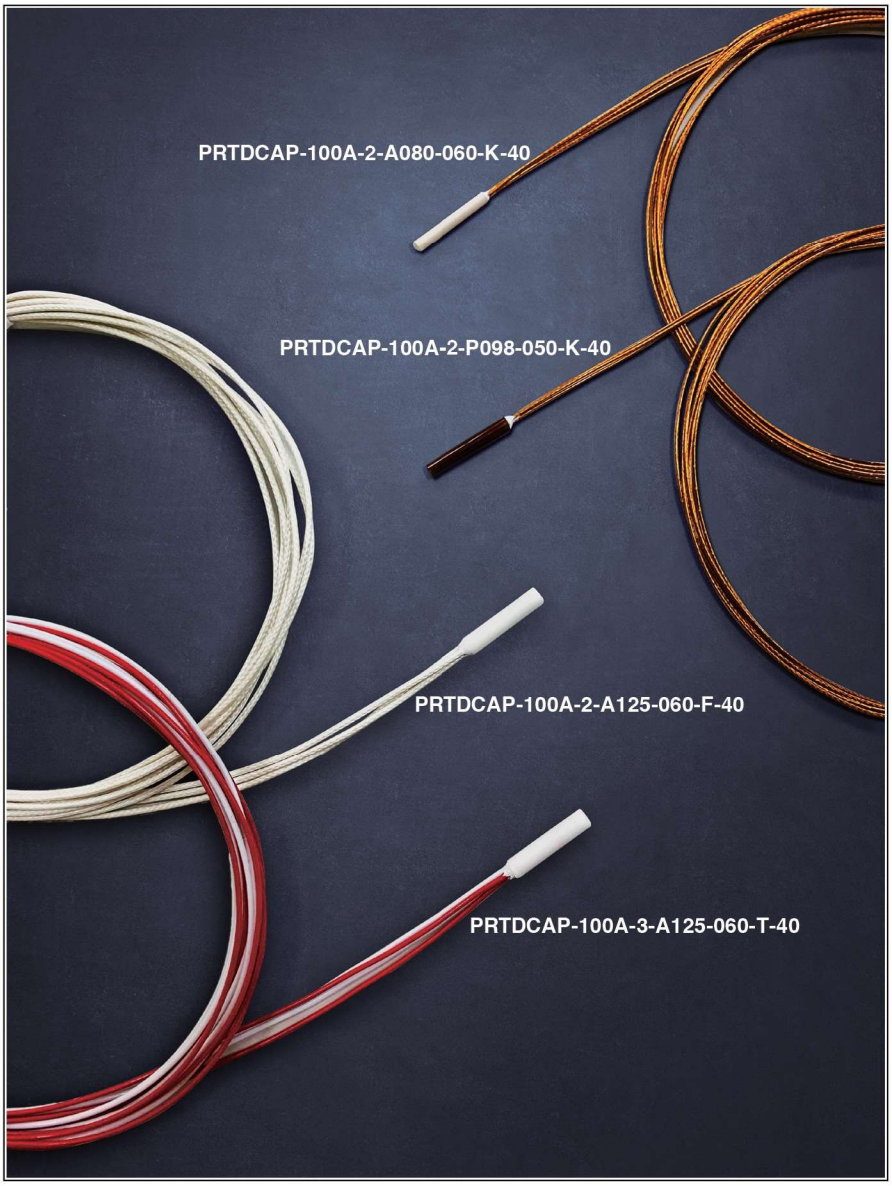
Platinum RTD Capsules

PRTDCAP Series

- 4 Temperature Ranges Available
- 100 or 1000 Ω
- 3- and 4-Wire Configurations as Noted
- Moisture Resistant Construction Available in Some Models

Ready to use new Platinum RTD capsules have insulated lead wires welded and anchored internally. No splicing to fragile elements is required. This construction ensures a reliable and rugged design for application of embedment, insertion or probe assembly. Tip diameters from 0.080" to 0.125". Capsules are rated up to 510°C (950 °F). Choose the moisture resistant version for condensing conditions



All models shown larger than actual size in the photo above.

Specifications

Standard Lead Length: 1 m (40")

Operating Temperature Range:

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

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

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

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

Sensing Element: Thin Film Platinum Class A RTD element, a = 0.00385 Ω/Ω/°C per IEC 60751

Response Time (Time Constant t63.2 for Water at 3'/Second):

0.080" Diameter = 0.5 seconds
0.098" Diameter = 0.6 seconds
0.125" Diameter = 0.8 seconds

Self-Heating:
Water [v=0m/s], E = 15 mW/K

Interchangeability/Accuracy:
Class A (±0.15+.002*|t|°C [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 <0.04% after 1000hr at maximum operating temperature.

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

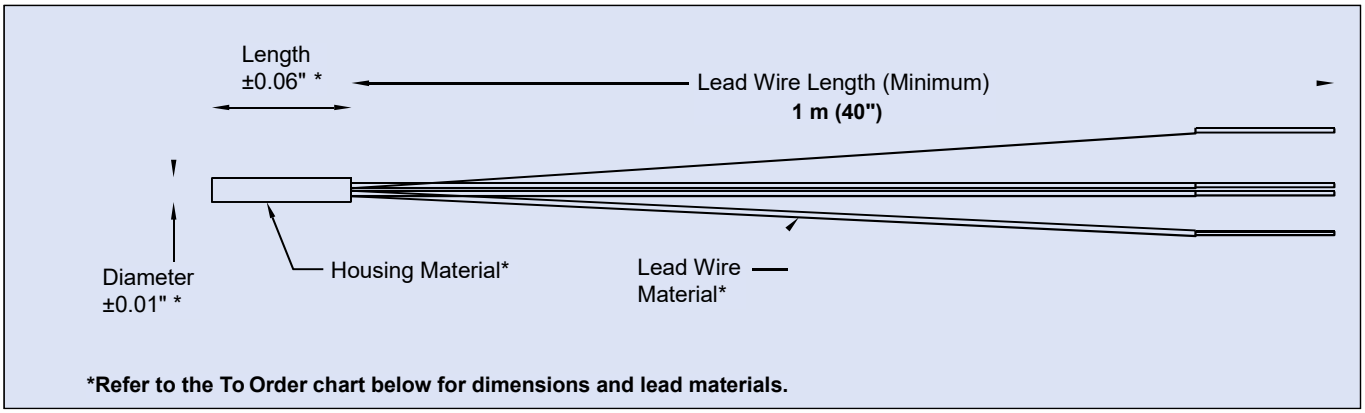
Recommended Current:
1mA for 100Ω, 0.3mA for 1000Ω.

Maximum Current:
Higher measurement currents can be applied as long as self-heating does not change the measurement value more than the needed measurement accuracy. But should not exceed 2mA for 100Ω and 0.5mA for 1000Ω.

Capsule Case Materials:
Alumina on 0.080" and 0.125" diameter.
Polyimide (350°C or 662°F) on 0.098" diameter.

Lead Materials:
Nickel Plated Copper.

Lead Insulation Materials:
26 AWG TFE
26 AWG Kapton® polyimide
26 AWG Fiberglass



***Refer to the To Order chart below for dimensions and lead materials.**

To Order

Model No.	Description
PRTDCAP-100A-2-A080-060-K-40	100 Ω RTD, 0.080" diameter x 0.6" long alumina with 26 AWG polyimide leads, 350°C (660°F), 3-wire
PRTDCAP-100A-2-P098-050-K-40	100 Ω RTD, 0.098" diameter x 0.5" long polyimide with 26 AWG polyimide leads, 350°C (660°F), 3-wire only
PRTDCAP-100A-2-P098-050-T-40	100 Ω RTD, 0.098" diameter x 0.5" long polyimide with 26 AWG TFE leads, 260°C (500°F), 3-wire
PRTDCAP-100A-3-A125-060-T-40	100 Ω RTD, 0.125" diameter x 0.6" long alumina with 26 AWG TFE leads, 260°C (500°F), 4-wire
PRTDCAP-100A-2-A125-060-T-40-M	100 Ω RTD, 0.125" diameter x 0.6" long alumina with 26 AWG TFE leads, 200°C (390°F), 300 psi seal, moisture resistant, 3-wire
PRTDCAP-100A-2-A125-060-F-40	100 Ω RTD, 0.125" diameter x 0.6" long alumina with 26 AWG fiberglass leads, 510°C (950°F), 3-wire
PRTDCAP-1KA-2-A080-060-K-40	1000 Ω RTD, 0.080" diameter x 0.6" long alumina with 26 AWG polyimide leads, 350°C (660°F), 3-wire
PRTDCAP-1KA-2-P098-050-K-40	1000 Ω RTD, 0.098" diameter x 0.5" long polyimide with 26 AWG polyimide leads, 350°C (660°F), 3-wire
PRTDCAP-1KA-2-P098-050-T-40	1000 Ω RTD, 0.098" diameter x 0.5" long polyimide with 26 AWG TFE leads, 260°C (500°F), 3-wire
PRTDCAP-1KA-3-A125-060-T-40	1000 Ω RTD, 0.125" diameter x 0.6" long alumina with 26 AWG TFE leads, 260°C (500°F), 4-wire
PRTDCAP-1KA-2-A125-060-F-40	1000 Ω RTD, 0.125" diameter x 0.6" long alumina with 26 AWG fiberglass leads, 510°C (950°F), 3-wire

Note: *3- an 4-wire sensors can be modified by the customer for 2- and 3-wire applications by cutting off unneeded lead wires.*
Ordering Example: PRTDCAP-100A-2-P098-050-K-40, *100 ΩRTD, 0.098" diameter x 0.5" long polyimide with 26 AWG Kapton ®polyimide leads, 350°C (660°F), 3-wire design.*
PRTDCAP-1KA-2- P098-050-K-40,*1000Ω RTD, 0.098" diameter x 0.5 long polyimide with 26 AWG Kapton®polyimide leads, 350°C (660°F), 3-wire design.*