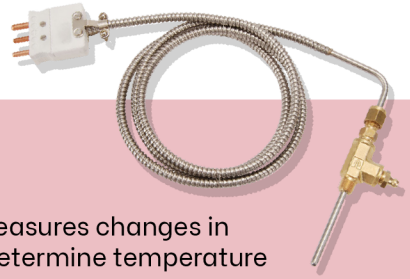
TEMPERATURE SENSOR GUIDE

Selecting the best temperature sensor for your application—whether a thermocouple or RTD—can be challenging. Factors like temperature range, response time, accuracy, durability, installation method, and cost all play a crucial role.

Use our guide to find the right fit.

Southern Heat



Type of Sensor	**Thermocouple** a temperature sensor made from two dissimilar metals that generate a voltage (mV) based on temperature differences	**Resistance Temperature Detector (RTD)** a temperature sensor that measures changes in electrical resistance (Ω) to determine temperature
Fixed Depth Termination Probe Styles	Rigid stainless steel sheath welded to fixed NPT fitting Split Leads, Spade Lugs, or Male Plug Straight or 90˚ bend	RTD element sealed in a stainless steel sheath with fixed process connection Split Leads, Spade Lugs or Male Plug Straight or 90˚ bend
Adjustable Depth Termination Lead Styles	Sheath with compression fitting or spring-loaded cap for depth variability Split Leads, Spade Lugs or Male Plug SSOB or Armor Cable	Adjustable sheath with RTD element and 2 or 3-wire connection Split Leads, Spade Lugs or Male Plug SSOB or Armor Cable
Melt Bolt Lead Styles	Threaded bolt with TC tip at probe end, designed for melt stream contact Armor Cable, MgO, or Adjustable	Threaded melt bolt with RTD element at tip for direct melt measurement Armor Cable, MgO, or Adjustable
Positive Indicating	Spring-loaded TC with a red cap that visually indicates “bottomed” contact with process surface	RTD with red cap that visually indicates “bottomed” contact while providing continuous temperature signal for process monitoring
Notes	Grounded and Ungrounded options available	2-Wire & 3-Wire options available

Additional options available including: Ring Lug, Hose Clamp, MgO, Magnetic, and Industrial Thermocouples and RTDs.

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