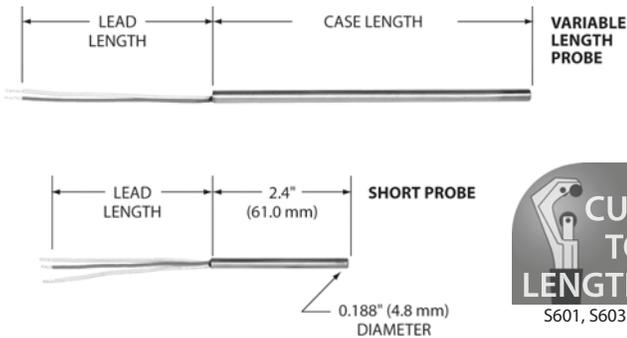


Fast Response RTDs



Overview

These probes have rugged stainless steel cases for use in high pressures or corrosive fluids. Yet their time constants are comparable to copper-tipped probes at 2 to 4 seconds, compared to 8 to 10 seconds for other all-stainless probes.

- All-stainless steel probes for use to 260°C (500°F)
- Unique low-mass element reacts quickly to temperature changes

Specifications

Temperature range: -269 to 260°C (-452 to 500°F).

Case material:

S601, S603, S604: 316 stainless steel.
S602, S614: 304/305 stainless steel.

Case length:

Minimum case length:
S602, S604: 2.0" (50.8 mm) with PTFE insulated leads;
3.0" (76.2 mm) with SS braid over leads.
S601, S603: 3.0" (76.2 mm).

Maximum case length:

48" (1220 mm), longer on special order.

Time constant: Typical in moving water:

S602, S604, S614: 2 seconds.

S601: 3 seconds.

S603: 4 seconds.

Pressure rating: 1500 psi (103 bar).

Leads: 2, 3, or 4 leadwires, AWG 22, stranded copper with PTFE insulation, stainless steel braid, or stainless steel armor.

For 2-lead RTDs add 0.03 Ω per foot of combined case and lead length to element tolerance (model S602 has AWG 26; add 0.08 Ω per foot for 2-lead).

Insulation resistance: 1000 megohms minimum at 500 VDC, leads to case.

Vibration: Withstands 10 to 2000 Hz at 20 G's minimum per MIL-STD-202, Method 204, Test Condition D.

Shock: Withstands 100 G's minimum sine wave shock of 8 milliseconds duration.

Specifications subject to change

Sensing elements

RTD sensing element		Code
Platinum (0.00392 TCR)	100 Ω ±0.5% at 0°C	PA
Platinum (0.00385 TCR) (Meets EN60751, Class B)	100 Ω ±0.1% at 0°C	PD
Platinum (0.00385 TCR)	100 Ω ±0.5% at 0°C	PE
Platinum (0.00385 TCR) (N/A for model S602)	1000 Ω ±0.1% at 0°C	PF
Copper (0.00427 TCR)	10 Ω ±0.2% at 25°C	CA
Nickel (0.00672 TCR)	120 Ω ±0.5% at 0°C	NA

Specification and order options:

Fast response probes

Specify 0.125" or 0.188" for fastest response, 0.250" or 0.215" for greater strength and cut-to-length capability (PTFE and SS braid models).

S604	Model number: S601: Ø 0.215" (5.5 mm) Cut-to-length probe S602: Ø 0.125" (3.2 mm) S603: Ø 0.250" (6.4 mm) Cut-to-length probe S604: Ø 0.188" (4.8 mm)
PD	Sensing element from table
140	Case length: Specify in 0.1" increments (Ex: 140 = 14.0 inches)
X	Number of leadwires: Z = 3 leads Y = 2 leads X = 4 leads (PD only)
36	Lead length in inches
T	Covering over leadwires: (S, A not available on S602) T = PTFE only A = Stainless steel armor S = Stainless steel braid
S604PD140X36T = Sample part number	

Short probes

S614	Model number (case with fixed length of 2.4" (61 mm))
PA	Sensing element from table
Z	Number of leadwires: Z = 3 leads Y = 2 leads X = 4 leads (PD only)
12	Lead length in inches
S	Covering over leadwires: T = PTFE only S = Stainless steel braid
S614PAZ12S = Sample part number	



STOCKED PARTS

Case Diameter	Sensing Element	Case Material	# of Lead-wires	Lead Length	Lead Covering	Case Length	Stock Part #
0.188" (4.8mm)	PA	304/305 Stainless	3	36"	PTFE Insulated Leads	2.4"	S614PAZ36T
	PD						S614PDZ36T
	PF						S614PFZ36T
0.250" (6.4mm)	PD	304/305 Stainless	3	36"	PTFE Insulated Leads	12.0"	S603PD120Z36T
	PD					24.0"	S603PD240Z36T

Note: Available up to 10 pieces or contact Minco Customer Service