

AX-PT SERIES

PLATINUM RTD TEMPERATURE PROBES

Pt1000 probe $\varnothing 4 \times 30$ mm, PTFE cable, 3-wire, $-50 \dots +200$ °C

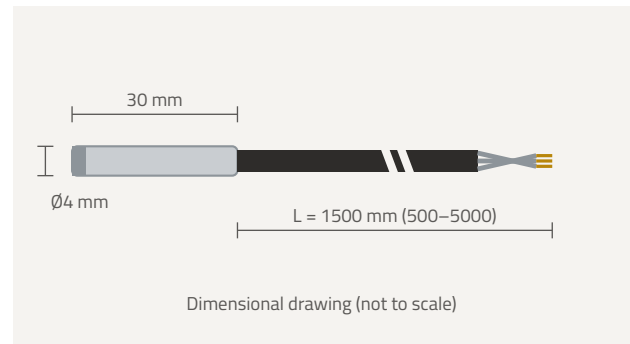
The Axiom Thermal AX-PT series probe-type platinum RTD sensors combine a platinum element to IEC 60751 with an AISI 304 stainless-steel sheath and PTFE anti-corrosion lead wire. Waterproof, oil-proof and acid/alkali resistant, for temperature measurement in pipes, tanks, machinery and corrosive environments.

Applications: Pipes, tanks and reactors, machinery, HVAC, food machinery, chemical and corrosive environments, water and oil temperature measurement, environmental test chambers.

KEY FEATURES

- Platinum RTD element, measuring range $-50 \dots +200$ °C
- Class B accuracy standard; classes 2B / A / 1/3B optional
- Compact $\varnothing 4 \times 30$ mm probe, fast response, easy mounting
- PTFE-sheathed lead wire: waterproof, oil-proof, acid and alkali resistant
- 3-wire connection compensates lead resistance over long distances
- Standard wire length 1.5 m, 0.5 ... 5 m on request; OEM available

DIMENSIONS



TECHNICAL SPECIFICATIONS

Sensing element	Platinum RTD to IEC 60751
Measuring range	$-50 \dots +200$ °C
Accuracy class	Class B standard (± 0.3 °C at 0 °C); 2B / A / 1/3B optional
Wiring	3-wire (red $\times 2$ / blue $\times 1$)
Max. excitation current	≤ 5 mA
Insulation resistance	≥ 100 M Ω (100 V DC)
Probe size	$\varnothing 4 \times 30$ mm (probe type, no fixing device)
Sheath material	AISI 304 stainless steel
Lead wire	PTFE anti-corrosion sheath, 3-core tinned stranded copper, 1.5 m (0.5 ... 5 m on request)
Protection class	IP65 (probe and lead seal)
Response time	≤ 10 s (in water, typical)
Ambient temperature	$-50 \dots +200$ °C (probe)

■ PT1000 RESISTANCE VS. TEMPERATURE AND TOLERANCE (IEC 60751)

Temp. (°C)	R (Ω)	Class B ± °C	Class A ± °C	Temp. (°C)	R (Ω)	Class B ± °C	Class A ± °C
-50	803.1	0.55	0.25	+40	1,155.4	0.50	0.23
-40	842.7	0.50	0.23	+50	1,194.0	0.55	0.25
-30	882.2	0.45	0.21	+60	1,232.4	0.60	0.27
-20	921.6	0.40	0.19	+80	1,309.0	0.70	0.31
-10	960.9	0.35	0.17	+100	1,385.1	0.80	0.35
0	1,000.0	0.30	0.15	+120	1,460.7	0.90	0.39
+10	1,039.0	0.35	0.17	+140	1,535.8	1.00	0.43
+20	1,077.9	0.40	0.19	+160	1,610.5	1.10	0.47
+30	1,116.7	0.45	0.21	+200	1,758.6	1.30	0.55

Resistance values to IEC 60751 (Callendar–Van Dusen equation). Tolerance of the sensing element only; lead resistance not included.

■ INSTALLATION AND WIRING

3-wire: two red wires on one end of the element, one blue wire on the other end. The 3-wire connection compensates lead resistance and is recommended for runs over 10 m. Notes: (1) wire colours may change without notice; (2) check that the RTD type matches the instrument setting before power-on; (3) do not exceed the rated temperature range.

■ ORDERING CODES

Code	Description
AX-PT-2B-1.5M	Class 2B, cable 1.5 m
AX-PT-B-1.5M	Class B, cable 1.5 m
AX-PT-A-1.5M	Class A, cable 1.5 m
AX-PT-B-0.5M	Class B, cable 0.5 m
AX-PT-B-1M	Class B, cable 1 m
AX-PT-B-2M	Class B, cable 2 m
AX-PT-B-3M	Class B, cable 3 m
AX-PT-B-5M	Class B, cable 5 m

■ OPTIONS FOR OEM AND PRIVATE LABEL

Accuracy	Class 2B, A, 1/3B
Cable length	0.5 ... 5 m
Construction	Custom accuracy, length and structure (OEM)

- Specifications subject to change without notice.
- OEM and private-label versions available. MOQ, lead time and price on quotation.

Request a quote or samples: info@axiomthermalgroup.com · axiomthermalgroup.com/contact-us