

AX-NTC SERIES

NTC TEMPERATURE PROBES

Cable-type passive HVAC probes, NTC 10K / 100K, $\pm 1\%$, IP65

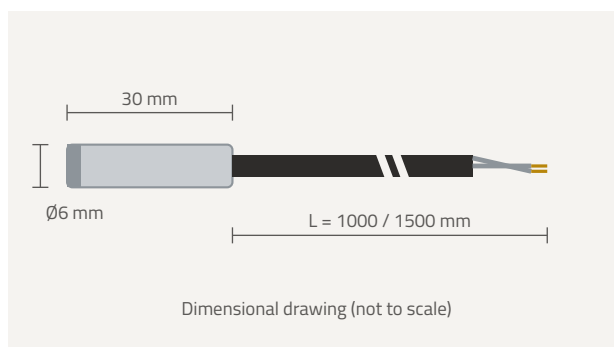
The Axiom Thermal AX-NTC series uses high-precision NTC thermistors in a stainless-steel probe, for temperature measurement in HVAC, refrigeration, heating and home appliances. R25 10 k Ω or 100 k Ω , B value 3435 K, 3950 K or 3977 K, cable 1 m or 1.5 m, protection class IP65.

Applications: HVAC, air conditioners and refrigerators, water heaters, thermostats, home appliances, industrial temperature measurement, refrigeration equipment, smart home.

KEY FEATURES

- High-precision NTC thermistor, R25 10 k Ω / 100 k Ω
- B25/85 = 3435 K / 3950 K / 3977 K, tolerance $\pm 1\%$
- Measuring range $-30 \dots +200 \text{ }^{\circ}\text{C}$
- Stainless-steel probe $\varnothing 6 \text{ mm}$, IP65, waterproof and corrosion resistant
- Cable type with PVC sheath, 1 m / 1.5 m
- Tinned leads, XH2.54, ring or OT terminals; OEM on request

DIMENSIONS



TECHNICAL SPECIFICATIONS

Sensing element	NTC thermistor, epoxy encapsulated, 2-core lead
Nominal resistance R25	10 k Ω / 100 k Ω (standard 10 k Ω)
Resistance tolerance	$\pm 1\%$
B value (B25/85)	3435 K / 3950 K / 3977 K $\pm 1\%$ (standard B3950)
Measuring range	$-30 \dots +200 \text{ }^{\circ}\text{C}$
Wiring	2-wire, non-polar
Max. steady current	$\leq 5 \text{ mA}$ (recommended operating current $\leq 0.1 \text{ mA}$)
Insulation resistance	$\geq 100 \text{ M}\Omega$ (500 V DC)
Dielectric strength	500 V AC, 1 min, leakage current $\leq 5 \text{ mA}$
Probe size	Stainless-steel probe $\varnothing 6 \text{ mm}$, standard length 30 mm (custom lengths)
Sheath material	AISI 304 stainless steel
Lead wire	PVC sheathed, 2-core tinned stranded copper, 1 m / 1.5 m (other lengths on request)
Protection class	IP65
Response time	$\leq 15 \text{ s}$ (in water, typical)

■ RESISTANCE VS. TEMPERATURE (NTC 10K AND 100K, B3950)

Temp. (°C)	10K (Ω)	100K (Ω)	Temp. (°C)	10K (Ω)	100K (Ω)
-30	200,204	2,002,039	+50	3,588	35,882
-20	105,385	1,053,847	+60	2,486	24,862
-10	58,246	582,457	+70	1,760	17,598
0	33,621	336,206	+80	1,270	12,703
+10	20,175	201,746	+90	934	9,336
+20	12,535	125,353	+100	698	6,975
+25	10,000	100,000	+110	529	5,291
+30	8,037	80,371	+120	407	4,071
+40	5,301	53,015	+125	359	3,588

Indicative values calculated with the β -equation ($B = 3950$ K). The official R/T table for each B value is available on request.

■ INSTALLATION AND WIRING

2-wire, non-polar: the red and black wires are interchangeable in the measuring circuit. Notes: (1) wire colours may change without notice; (2) NTC is non-polarised; (3) recommended operating current ≤ 0.1 mA to keep self-heating error to a minimum.

■ ORDERING CODES

Code	Description
AX-NTC-N10K-B3435-1M	10 kΩ, B25/85 = 3435 K, cable 1 m
AX-NTC-N10K-B3435-1.5M	10 kΩ, B25/85 = 3435 K, cable 1.5 m
AX-NTC-N10K-B3950-1M	10 kΩ, B25/85 = 3950 K, cable 1 m
AX-NTC-N10K-B3950-1.5M	10 kΩ, B25/85 = 3950 K, cable 1.5 m
AX-NTC-N10K-B3977-1M	10 kΩ, B25/85 = 3977 K, cable 1 m
AX-NTC-N10K-B3977-1.5M	10 kΩ, B25/85 = 3977 K, cable 1.5 m
AX-NTC-N100K-B3435-1M	100 kΩ, B25/85 = 3435 K, cable 1 m
AX-NTC-N100K-B3435-1.5M	100 kΩ, B25/85 = 3435 K, cable 1.5 m
AX-NTC-N100K-B3950-1M	100 kΩ, B25/85 = 3950 K, cable 1 m
AX-NTC-N100K-B3950-1.5M	100 kΩ, B25/85 = 3950 K, cable 1.5 m

■ OPTIONS FOR OEM AND PRIVATE LABEL

Cable length	Other lengths on request
Termination	Tinned, XH2.54, ring terminal, OT terminal, bare wire
Probe	Custom probe length
B value	Other B values on request (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