

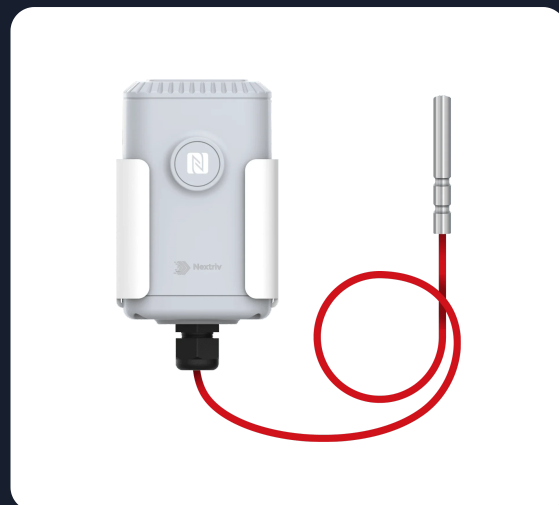
Nextriv Probe PT100

Industrial PT100 temperature probe

NX-PR-PT100

Nextriv Probe

An industrial temperature probe with a platinum PT100 sensing element for measurements in harsh conditions — from cryogenic applications to high-temperature processes. Four factory range variants from -200 °C to +800 °C plus custom probes made to order (tip type, cable length, range). The 3-wire connection reduces cable-resistance error, and the sealed IP67 transmitter sends data to the Nextriv platform over long-range radio. A replaceable 19,000 mAh battery lasts up to 10 years.



-200...+800
°C

measuring range (variants)

±0.5 °C

typical accuracy

10 yrs

battery life

IP67

transmitter ingress protection

Key features

- Platinum PT100 sensing element with a 3-wire connection — measurement immune to cable-resistance error
- Four factory range variants (-200...+50 / -50...+200 / -50...+500 / -50...+800 °C) and custom probes anywhere within -200...+800 °C
- Measurement separated from the electronics — the probe works at extreme temperatures, the transmitter in a safe spot (1.5 m cable, configurable)
- Sealed, vibration-resistant IP67 transmitter — for halls, boiler rooms and outdoor installations
- Up to 10 years on a single replaceable 19,000 mAh battery
- Configuration over NFC from a smartphone, over USB-C from a PC, or remotely via platform downlink
- Local buffer of approx. 1,000 readings with automatic retransmission and data retrieval — gap-free history
- Threshold and rapid-change alarms reported immediately, outside the regular reporting rhythm

Technical specification

Measurement — temperature	
Measuring ranges (factory variants)	-200...+50 °C / -50...+200 °C / -50...+500 °C / -50...+800 °C
Custom ranges	made to order anywhere within -200...+800 °C
Accuracy — -50...+200 °C variant	typ. ± 0.6 °C (-50...200 °C)
Accuracy — -50...+500 °C variant	typ. ± 0.5 °C (-50...170 °C); ± 1.2 °C (170...500 °C)
Accuracy — -50...+800 °C variant	typ. ± 0.5 °C (-50...170 °C); ± 1 °C (170...420 °C); ± 2 °C (420...800 °C)
Accuracy — -200...+50 °C variant	typ. ± 0.5 °C (-40...40 °C); ± 1 °C (-140...50 °C); ± 1.5 °C (-200...-140 °C)
Resolution	0.1 °C
Sensing element	PT100 platinum resistance element — class A (variants from -50 °C), class B (the -200...+50 °C variant)

Probe and cable	
Probe type	straight-tube measuring tip (tip type configurable); contact measurement
Connection	3-wire — cable-resistance compensation
Measuring tip	304 stainless steel, $\Phi 4 \times 30$ mm (variants up to +500 °C); 316 stainless steel, $\Phi 5 \times 50$ mm (the +800 °C variant)
Probe ingress protection	IP30; the -50...+200 °C variant: IP67
Cable	1.5 m (configurable length), corrosion-resistant; Teflon -200...290 °C (the -200...+50 and -50...+200 °C variants) or fibreglass -50...500 °C / -50...800 °C

Radio connectivity	
Technology	long-range, low-power radio (LPWAN)
Radio band	EU868 (EU); regional variants: US915, AU915, AS923, IN865, KR920, RU864
Tx power	up to 16 dBm (EU868)
Receiver sensitivity	down to -137 dBm
Antenna	internal
Sensor-gateway range	up to approx. 2 km in built-up areas / approx. 15 km in open terrain
Communication	two-way — readings to the platform, remote configuration via downlink

Device features	
Local buffer	approx. 1,000 readings; automatic retransmission and data retrieval after a connectivity outage
Alarms	on-device thresholds and a rapid-change alarm + alert rules in the Nextriv platform
Configuration	mobile app over NFC; PC software over USB-C (connector inside the enclosure); remotely via platform downlink
Indicators	1× status LED (internal)
Button	1× power / reset (internal)
Power on / off	NFC or button

Power	
Battery	1× lithium Li-SOCl ₂ ER34615 (D size), 19,000 mAh, replaceable
Battery life	up to 10 years — 10-min interval, 25 °C [1]

Enclosure and operating environment	
Transmitter operating temperature	-30...70 °C
Ambient humidity	0...100 % RH, non-condensing
Transmitter ingress protection	IP67
Housing	ABS + PC, grey
Weight	362.7 g (with battery, mounting bracket and probe)
Dimensions	105.4 × 71 × 69.5 mm (4.1 × 2.8 × 2.7 in)
Transmitter mounting	wall, pole/pipe or DIN rail

Compliance and approvals	
Approvals	CE, FCC, ISED, ICASA, Telec
Environmental	RoHS

Ordering information	
Product code (SKU)	NX-PR-PT100
Variants	four factory ranges: -200...+50 / -50...+200 / -50...+500 / -50...+800 °C; custom probes (tip type, cable length, range) — specify the variant when ordering
System requirement	a Nextriv Hub gateway (e.g. NX-GW-MINI, NX-GW-PRO)

[1] Battery life determined under laboratory conditions — indicative value; the actual time depends on the reporting interval and radio conditions.

Specifications are subject to change without notice. The latest document versions are available in the download centre: nextriv.com/files. Questions: nextriv.com/contact.