Nextriv Probe Pro

EN 12830 temperature logger with an interchangeable probe

NX-PR-PRO-1P | Nextriv Probe

A single-channel temperature logger with an interchangeable probe and EN 12830 certification — from pharmacy fridges and freezers to processes up to +500 °C. One measurement input (M12 connector) handles a whole family of detachable PT100 class A and B probes plus a door contact sensor — you match the measurement profile to the job while the transmitter stays put. Accuracy down to ±0.4 °C (class A), a 10,000-record buffer with retransmission and CSV/PDF export, an IP65 enclosure and power from a replaceable battery or a USB-C socket. NFC configuration and over-the-air firmware updates.

-200...+500 °C	±0.4 °C	10,000	IP65
probe range	accuracy (class A)	records in memory	ingress protection

Key features

- One measurement input (M12, 5-pin connector) with interchangeable, detachable probes — you handle a whole family of measurement profiles with the same logger and swap a probe or send it out for calibration with no break in monitoring
- Probes from -200 °C cryogenics to +500 °C, accuracy down to ±0.4 °C for PT100 class A versions — one device and one compliance regime across many jobs
- Into the same input, in place of a probe, you can connect a door contact sensor — the same logger then enforces the discipline of opening the chamber
- EN 12830 certification for temperature recorders in refrigeration — supports HACCP and 21 CFR Part 11 requirements
- A 10,000-record buffer with timestamps, retransmission and backfill polling — gap-free history after connectivity outages; CSV and PDF export
- Long-range radio connectivity with -137 dBm sensitivity — the signal gets out of cold rooms, freezers and plant rooms
- Dual power — 2× replaceable 4,000 mAh lithium battery or a USB-C 5 V/1 A socket; over 4 years with a probe and around 7 years with a door sensor (10-min interval)
- Configuration over NFC from a smartphone, over-the-air firmware updates (FUOTA), an IP65 enclosure and a -30...+70 °C operating range

Technical specification

Measurement — temperature	
Measuring range	depends on the probe: from -200 °C (low-temperature probe) to +500 °C (industrial probe)
Accuracy	±0.4 °C for PT100 class A probes (-50…+125 °C); ±0.5 °C / ±1 °C for class B probes
Resolution	0.1 °C
Sensing element	PT100 (platinum resistance sensor) in an interchangeable stainless-steel probe

Channels and connectors	
Number of inputs	1 input — an interchangeable temperature / temperature-and-humidity probe or a door contact sensor
Connector	M12, 5-pin (A-coded)
Probe design	field-detachable and interchangeable probes — supports periodic calibration or replacement without reconfiguring the logger
Dual-channel variant	a two-input version is available as Nextriv Probe Pro Duo (NX-PR-PRO-2P) — e.g. a probe in the chamber + a door sensor

Compatible probes	
Universal, PT100 class B	-40…+125 °C; ±0.5 °C (-40…+40 °C), ±1 °C (40…125 °C); 304 steel, 2 m cable (PVC), IP67
Industrial, PT100 class A	-50…+500 °C; ±0.4 °C (-50…+125 °C), ±1.15 °C (125…500 °C); 304 steel, 1.5 m Teflon cable, IP30
Low-temperature, PT100 class A	-200…+50 °C; ±0.5 °C (-175…+50 °C), ±0.55 °C (-200…-175 °C); cryogenic-resistant probe, 1.5 m cable, IP67
Food-grade, PT100 class A	-40…+125 °C; ±0.4 °C; food-grade 316 stainless steel, 100 mm penetration needle, 1.5 m silicone cable, IP67
Pipe, PT100 class A	-20…+85 °C; ±0.4 °C; 90 mm probe with a 46 mm pipe clamp, 2 m cable, IP67
Temperature and humidity	temp. -40…+125 °C (±0.2 °C across 0…+60 °C, ±0.3 °C across -40…0 °C, ±0.5 °C across 60…125 °C); humidity 0…100 % RH (±2 % @25 °C); 1.5 m cable
Digital temperature probe	-40…+125 °C; ±0.5 °C (-10…+85 °C), ±2 °C at the extremes; low drift (typ. ±0.2 °C, < 0.04 °C/yr); 1.5 m cable
Door contact sensor (magnetic)	detects opening from a distance of up to 3 cm (reed contact); 1.5 m cable — instead of temperature the logger watches chamber opening

Radio connectivity	
Technology	long-range, low-power radio (LPWAN)
Radio band	EU868 (EU); regional variants: US915, AU915, AS923, IN865, KR920, RU864, CN470
Tx power	16 dBm (EU868); 22 dBm (US915); 19 dBm (CN470)
Receiver sensitivity	down to -137 dBm (@300 bps)
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; direct triggering of devices within the Nextriv network

Memory and features	
Local memory	10,000 timestamped records; CSV or PDF export
Retransmission	automatic retransmission and backfill polling after a connectivity outage — gap-free history
Alarms	on-device alarm thresholds; alert rules in the Nextriv platform
Configuration	mobile app over NFC; remotely via platform downlink
Firmware updates	over the air (FUOTA)
Indicators	1× internal status LED
Buttons	external power button + internal reset button

Power	
Battery	2× lithium Li-$SOCl_2$ ER18505, 4,000 mAh, replaceable — or USB-C mains power 5 V/1 A
Battery life	over 4 years with a temperature probe / around 7 years with a door sensor — 10-min interval, EU868 [1]

Enclosure and operating environment	
Ingress protection	IP65 (transmitter enclosure with a dust cap); PT100 probes up to IP67
Operating temperature	transmitter: -30…+70 °C; probe depends on type (up to +500 °C)
Ambient humidity	0…95 % RH, non-condensing
Dimensions	109.35 × 75 × 29 mm
Weight	175 g (transmitter without probe)
Mounting	wall screw mounting, magnetic nut mounting or with a buffer bottle that improves thermal response

Compliance and approvals	
Approvals	CE, FCC, EN 12830
Process compliance	supports HACCP and 21 CFR Part 11 requirements
Environmental	RoHS

Ordering information	
Product code (SKU)	NX-PR-PRO-1P
Variants	single-channel version (1 input); a dual-channel variant (2 inputs) is available as Nextriv Probe Pro Duo (NX-PR-PRO-2P)
Accessories	interchangeable PT100 and specialist probes, door sensor, buffer bottle with mount, magnetic nut, USB-C 5 V/1 A power supply
System requirement	a Nextriv Hub gateway (e.g. NX-GW-MINI, NX-GW-PRO)

[1] Battery life determined under laboratory conditions with the standard battery — indicative value; the actual time depends on the probe type, battery brand, reporting interval and radio conditions.

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