

Nextriv Probe Food

Spike temperature probe for bulk materials

NX-PR-FOOD

Nextriv Probe

A 40 cm spike temperature probe driven into a heap, stack or bulk material — early detection of self-heating in grain, hay, tobacco and compost. The food-grade 316 stainless steel probe and the IK10 impact-rated housing are designed for driving in and for rough surroundings, and resistance to the corrosive effects of phosphine lets the sensor stay in the warehouse during fumigation. A rapid temperature change alarm recognises self-heating by its rate of rise, and a local buffer of 1,200 readings with retransmission keeps the history gap-free. Up to 10 years on a single replaceable battery and NFC configuration from a smartphone.



±0.5 °C

measurement accuracy

up to 10 yrs

battery life

40 cm

spike probe

IP67 / IK10

ingress and impact protection

Key features

- All in one: a 40 cm probe and a radio transmitter in a single compact housing — installation is simply driving it in
- Food-grade 316 stainless steel probe (Ø7 × 400 mm); ABS + PC housing approved for food contact
- Resistant to the corrosive effects of phosphine — the sensor can stay in the warehouse during fumigation
- IP67 sealing and an IK10 impact zone — designed for driving in (even with a rubber mallet) and for harsh environments
- Rapid temperature change alarm — detects self-heating by its rate of rise, not just the absolute value
- Local buffer of 1,200 readings with retransmission and backfill polling — a complete history after connectivity gaps
- Up to 10 years on a single replaceable 4,000 mAh lithium battery
- Power on/off and configuration over NFC from a smartphone

Technical specification

Measurement — temperature	
Measuring range	-30...+70 °C
Accuracy	typ. ±0.5 °C [1]
Resolution	0.1 °C
Sensing element	high-stability digital semiconductor sensor

Radio connectivity

Technology	long-range, low-power radio (LPWAN)
Radio band	EU868 (EU); regional variants: US915, AU915, AS923, IN865, KR920, RU864
Tx power	16 dBm (EU868); up to 20 dBm for 915 MHz variants
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

Measuring probe

Probe material	food-grade 316 stainless steel, resistant to phosphine corrosion; silver grey
Probe dimensions	Ø 7 × 400 mm (Ø 0.28 × 15.75 in)
Installation	by driving the probe deep into the stored material

Device features

Local buffer	1,200 readings; automatic retransmission and backfill polling after a connectivity outage
Alarms	on-device rapid temperature change alarm + thresholds and alert rules in the Nextriv platform
Configuration	mobile app over NFC; remotely via platform downlink
Power on / off	NFC or an internal button

Power

Battery	1× lithium Li-SOCl ₂ ER18505, 4,000 mAh, replaceable
Battery life	up to 10 years under favourable radio conditions; approx. 4.8–5.5 years at maximum-range settings — 1-h interval, 25 °C [2]

Enclosure and operating environment

Operating temperature	-30...+70 °C
Ambient humidity	0...95 % RH, non-condensing
Ingress protection	IP67
Impact protection	IK10 (transmitter)
Transmitter housing	food-grade ABS + PC, resistant to phosphine corrosion, white
Transmitter dimensions	92 × 92 × 26 mm (3.62 × 3.62 × 1.02 in, disc-shaped outline)

Compliance and approvals

Approvals	CE, FCC
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Environmental	RoHS
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Ordering information

Product code (SKU)	NX-PR-FOOD
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System requirement	a Nextriv Hub gateway (e.g. NX-GW-MINI, NX-GW-PRO)
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[1] Accuracy depends on the measured temperature — the typical value is given; the deviation may be larger at the extremes of the measuring range.

[2] 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.