

Nextriv Sense Pulse

Pulse counter module for utility meters

NX-SN-PLS

Nextriv Sense

A pulse counting module that turns conventional water, gas and energy meters into remotely read meters — a retrofit with no meter replacement. It wires into the pulse output (dry contact, reed switch), counts up to 2,000 pulses per second and digitally filters out interference, while also measuring ambient temperature and humidity. Water flow alarms detect leaks and supply outages, and a local buffer with retransmission keeps the reading history gap-free. The sealed IP67 housing allows installation even in meter pits and outdoors, and the replaceable battery lasts approx. 5 years.



2,000 Hz

max counting frequency

IP67

pit and outdoor rated

~15 km

open-terrain range

5–10 yrs

battery life

Key features

- Retrofit with no meter replacement — wires into the pulse output (dry contact, reed switch) of existing water, gas and energy meters
- Digital noise filter rejects signals shorter than 250 μ s — counts immune to contact bounce and electrical noise
- Counts up to 2,000 pulses per second; flexible counter modes: accumulate, stop, clear, plus on-demand readout of the current value
- Converts pulses into water consumption and raises flow alarms: continuous flow (a leak signature) and flow outage
- Built-in temperature and humidity measurement with threshold alarms — frost protection for meter pits and meter rooms
- Buffer of 1,000 records with automatic retransmission — gap-free reading history after connectivity outages
- Sealed IP67 housing in flame-retardant ABS + PC — installation in pits, basements and outdoors
- Configuration over NFC from a smartphone or remotely from the platform (downlink); replaceable 4,000 mAh battery, optionally 8,000 mAh

Technical specification

Pulse input	
Port	1× digital input, dry contact
Work modes	pulse counter or digital input
Input frequency	≤ 2,000 Hz
Minimum pulse width	250 μs (digital noise filtering)
Signal cable	1 m (length configurable to order); 3.5 mm wire connection
Applicable meters	reed-switch meters and other passive pulse meters

Measurement — temperature	
Measuring range	-30...70 °C
Accuracy	±0.3 °C (0...70 °C); ±0.6 °C (-30...0 °C)
Resolution	0.1 °C
Sensing element	digital MEMS (integrated temperature and humidity sensor)

Measurement — relative humidity	
Measuring range	0...100 % RH
Accuracy	±3 % RH (10...90 % RH); ±5 % RH (below 10 % and above 90 % RH)
Resolution	0.5 % RH
Sensing element	digital MEMS (integrated temperature and humidity sensor)

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); up to 20 dBm (US915)
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	
Counter modes	accumulate, stop, clear the accumulated value; on-demand readout of the current value
Noise filter	digital filtering of interference signals — trustworthy counting
Consumption calculation	water consumption calculated from pulses
Alarms	continuous water flow / flow outage, temperature thresholds + alert rules in the Nextriv platform
Local buffer	1,000 records; automatic retransmission and backfill after a connectivity outage
Configuration	mobile app over NFC; remotely via platform downlink
Power on / off	NFC or internal button
Indicators	1× LED indicator (internal); 1× power/reset button (internal)

Power	
Battery	1× lithium Li-SOCl ₂ ER18505, 4,000 mAh, replaceable (optional 8,000 mAh version)
Battery life	5 years (10-min interval, 25 °C); up to approx. 10 years with the 8,000 mAh battery [1]

Enclosure and operating environment	
Operating temperature	-30...70 °C
Ambient humidity	≤ 95 % RH, non-condensing
Ingress protection	IP67 — also suitable for meter pits and outdoor mounting
Housing	ABS + PC (flame retardant), white
Dimensions	105.6 × 85.2 × 27 mm (4.15 × 3.35 × 1.06 in)
Weight	114.2 g (with battery and wire)
Mounting	wall mounting — screws, industrial 3M tape or cable ties

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

Ordering information	
Product code (SKU)	NX-SN-PLS
Variants	4,000 mAh or 8,000 mAh battery (longer operation); configurable signal-cable length — 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.