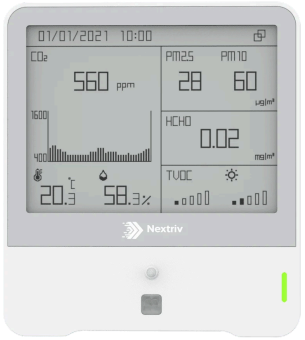
Nextriv Sense IAQ Pro

9-in-1 air quality station

NX-SN-AQ9P | Nextriv Sense

The richest air quality station in the Sense family — nine parameters in one device, with a swappable ninth sensor: formaldehyde (HCHO) or ozone (O_3). It measures temperature, humidity, CO_2 (photoacoustic), TVOC, PM2.5/PM10 particulates, barometric pressure, light and motion, showing the results on a large 4.2″ e-ink display and in the Nextriv platform. Permanent USB-C power and always-listening radio mean an instant response to remote commands. A tamper-proof history of 18,000 records with retransmission delivers data ready for building certifications — selected variants carry the WELL programme compliance mark.



9	4.2″	18,000	~15 km
parameters in one device	e-ink display	local history records	open-terrain range

Key features

- 9 parameters at a single measurement point: temperature, humidity, CO_2, TVOC, particulates, pressure, light, motion plus formaldehyde or ozone
- Swappable ninth sensor: formaldehyde (electrochemical cell, approx. 6-year lifetime) or ozone (approx. 2 years) — one platform, two risk profiles
- CO_2 measured with photoacoustic technology — ±(50 ppm + 5 % of reading) across 400…2000 ppm
- PM2.5/PM10 particulates via laser light scattering as standard
- Permanent USB-C power and always-listening radio — instant response to remote commands, with no waiting for a transmission window
- 4.2″ e-ink display with comfort emoticons, a traffic-light LED indicator and an acoustic alarm buzzer
- 18,000 records of local history with on-demand retrieval and retransmission — certification data with no gaps
- Configuration over NFC from a smartphone, via USB-C or remotely from the platform (downlink); WELL programme compliance mark (selected variants)

Technical specification

Measurement — temperature	
Measuring range	-20…60 °C
Accuracy	typ. ±0.2 °C (0…60 °C); ±0.3 °C (-20…0 °C)
Resolution	0.1 °C
Sensing element	high-precision digital MEMS

Measurement — relative humidity	
Measuring range	0…100 % RH
Accuracy	typ. ±2 % RH (at 25 °C)
Resolution	0.5 % RH
Sensing element	high-precision digital MEMS

Measurement — carbon dioxide (CO_2)	
Measuring range	400…2000 ppm
Accuracy	±(50 ppm + 5 % of reading) at -10…60 °C
Resolution	1 ppm
Sensing element	photoacoustic

Measurement — particulate matter (PM2.5 / PM10)	
Measuring range	0…1000 µg/m³
PM2.5 and PM10 accuracy	±10 µg/m³ (0…100 µg/m³); ±10 % (100…1000 µg/m³), at -10…60 °C
PM2.5 accuracy (PM10-free variant)	±5 µg/m³ (0…100 µg/m³); ±10 % (100…1000 µg/m³), at -10…60 °C
Resolution	1 µg/m³
Measuring principle	laser light scattering

Measurement — volatile organic compounds (TVOC)	
Report mode	air-quality index or concentration value
Air-quality index	range 1.00…5.00; accuracy ±1; resolution 0.01
Concentration	range 0…2000 µg/m³; accuracy ±(20 µg/m³ + 15 % of reading) at 1…500 µg/m³; resolution 1 µg/m³
Sensing element	MOX semiconductor (MEMS)

Measurement — formaldehyde (HCHO), variant	
Measuring range	0…1.25 mg/m³ (0…1 ppm) [2]
Accuracy	±10 %
Resolution	0.01 mg/m³ (0.001 ppm)
Sensing element	electrochemical cell
Cell lifetime	approx. 6 years [1]

Measurement — ozone (O_3), variant	
Measuring range	0…10 ppm
Accuracy	±5 % of full scale
Resolution	0.01 ppm
Sensing element	electrochemical cell
Cell lifetime	approx. 2 years [1]

Measurement — barometric pressure	
Measuring range	260…1260 hPa
Accuracy	±0.5 hPa
Resolution	0.1 hPa
Sensing element	piezoresistive absolute pressure sensor (MEMS)

Measurement — light level	
Measuring range	0…60,000 lx, reported as 6 levels (0–5)
Sensing element	photodiode

Detection — motion and occupancy	
Operating principle	passive infrared (PIR)
Detection area	80° horizontal × 55° vertical, up to 5 m range
Reported status	vacant / occupied

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
Receive mode	always-listening radio — remote commands executed instantly (permanently powered device)
Communication	two-way — readings to the platform, remote configuration via downlink

Display and indicators	
Display	4.2″ black & white e-ink; display modes with comfort emoticons; display operation 0…40 °C
Indicators	traffic-light LED indicator (status and threshold alarms) + acoustic buzzer
Buttons	1× power + 1× reset
USB port	1× USB-C — power, configuration or service console

Device features	
Local storage	18,000 records; on-demand history retrieval and automatic retransmission after a connectivity outage
Threshold alarms	on-device thresholds with LED and acoustic signalling + alert rules in the Nextriv platform
Calibration	calibration of the measurement channels
Configuration	mobile app over NFC; PC software over NFC or USB-C; remotely via platform downlink
Power on / off	mobile app (NFC), PC software (NFC or USB-C) or button
Other	smart screen mode, button lock

Power	
Power supply	5 V / 1 A via the USB-C port; continuous operation (no battery operation)

Enclosure and operating environment	
Operating temperature	-20…60 °C (e-ink display: 0…40 °C)
Ambient humidity	10…90 % RH, non-condensing
Ingress protection	IP30 (indoor use)
Housing	ABS (UL94 HB), white
Weight	148 g
Dimensions	100.8 × 114 × 22 mm (3.97 × 4.49 × 0.87 in)
Mounting	wall mounting — industrial 3M tape or screws

Compliance and approvals	
Approvals	CE, CE (RED), FCC, ISED; selected variants additionally: WELL programme compliance mark
Environmental	RoHS

Ordering information	
Product code (SKU)	NX-SN-AQ9P
Variants	with a formaldehyde (HCHO) or an ozone (O_3) sensor; an HCHO variant measuring PM2.5 only (no PM10, higher-accuracy PM2.5 channel) is also available — specify the variant when ordering
System requirement	a Nextriv Hub gateway (e.g. NX-GW-MINI, NX-GW-PRO)

[1] The formaldehyde and ozone sensors are alternative variants — the device carries one of them; the electrochemical cell is replaceable once its lifetime expires.

[2] For formaldehyde at 760 mmHg and 20 °C: 1 ppm = 1.25 mg/m³.

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