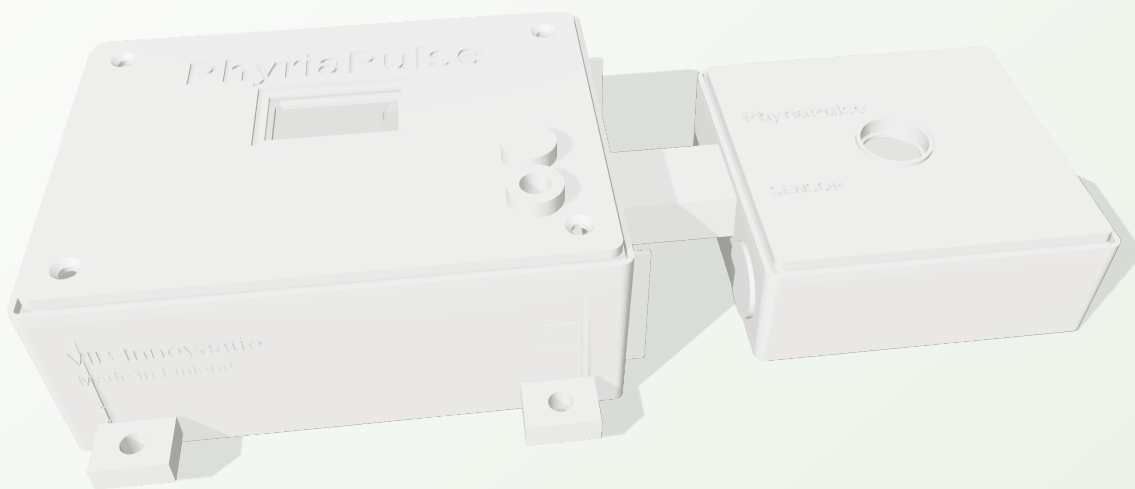




Know exactly what your greenhouse grows in. One node, six signals.

PhyriaPulse is a wireless greenhouse monitoring sensor. It measures CO₂, temperature, humidity, air pressure, light, and soil moisture around the clock and delivers every reading to your phone in real time — with alerts before small problems become crop loss.



CO₂ 400–10 000 ppm

NDIR optical sensing, ± 30 ppm $\pm 3\%$.
Pace ventilation with confidence.

Temperature ± 0.4 °C

–40 to +70 °C range. Track day and night extremes, not just averages.

Humidity ± 3 %RH

0–100 %RH. See the climb toward mold conditions before it reaches the canopy.

Air pressure ± 1 hPa

300–1100 hPa. Pressure shifts hint at the weather ahead.

Light 0–120 000 lux

Visible spectrum 440–800 nm. Know what your crop actually receives.

Soil moisture 0–100 % VWC

Capacitive probe on a 60 cm cable. Water on evidence, not guesswork.

$r = 0.98$

temperature correlation with
Priva Connex at HAMK Lepaa

$r = 0.945$

CO₂ correlation with a
€100,000+ climate computer

118 h

continuous side-by-side
operation, zero gaps > 15 min

60 s

reporting interval,
confirmed in live pilot

PRICING

Hardware node

€665 one-time

Sensor node, enclosure, and installation support. Delivered and configured for your greenhouse.

Cloud subscription

€39 / month

Real-time data, mobile alerts, dashboard access, and over-the-air updates. Cancel any time.

FIRST MONTH FREE

Prices exclude VAT. Shipping from €6 (Finland) / €9 (international). Pilot and multi-node pricing on request.



TECHNICAL SPECIFICATIONS

CO ₂		System	
Measurement range	400 – 10 000 ppm	Reporting interval	60 s
Accuracy	±30 ppm ±3% of reading	Primary wireless	LoRa 868 MHz
Resolution	1 ppm	Secondary wireless	WiFi 2.4 GHz 802.11 b/g/n
Principle	NDIR optical	Typical LoRa range	Up to several km open field
Temperature		Display	OLED 128 × 64 px
Measurement range	–40 – +70 °C	Battery	Li-Ion, weeks per charge
Accuracy	±0.4 °C typical	Charging	Pogo pad, no exposed connector
Resolution	0.01 °C	Firmware updates	Over-the-air
Relative humidity		Enclosure	Designed to meet IP65 (IEC 60529)*
Measurement range	0 – 100 %RH	Operating temperature	–10 – +60 °C
Accuracy	±3 %RH typical	Security	TLS transport, signed payloads
Resolution	0.1 %RH	Compliance path	EU RED, EN 18031 ready
Air pressure		* Certification in progress. LoRa range is reduced inside metal greenhouse structures. Validated at HAMK Lepaa In April 2026 the pilot node ran for five days in a working tomato greenhouse, side by side with Priva Connex and Aranet Pro. 1,418 aligned records; temperature correlation $r = 0.98$, CO₂ $r = 0.945$; no connectivity gap over 15 minutes. Full results: phyriapulse.com/lepaa.html Made for growers who want fewer surprises Independent growers, research stations, and garden centers. Start with one node in one room — first month of the subscription free — and scale at your pace.	
Measurement range	300 – 1100 hPa		
Accuracy	±1 hPa typical		
Resolution	0.18 Pa		
Light			
Measurement range	0 – 120 000 lux		
Spectral response	440 – 800 nm (visible)		
Dynamic range	Adjustable gain & integration		
Soil moisture			
Sensing method	Capacitive (no corrosion)		
Output	0 – 100 % VWC		
Probe cable	≥ 60 cm from enclosure		