

Aura2

AMBIENT SENSOR MODULE · QUALIMETRIC

IN DEVELOPMENT · EXPECTED EARLY 2027

Ambient monitoring for gravimetric laboratories

Temperature, humidity and barometric pressure next to your balance — every value with its standard deviation and number of readings, ready for your uncertainty budget.



T · RH · p

three quantities in one module

ISO/IEC 17025

ready for calibration by an accredited laboratory

Traceable

unique hardware identity links every reading to its calibration

Standalone

logging to microSD, with battery backup and real-time clock

APPLICATIONS

- ✓ **Air-buoyancy correction** of weighings
- ✓ **Ambient records** for ISO/IEC 17025
- ✓ **Checking conditions** before measuring
- ✓ **Correction** to reference conditions
- ✓ **Ambient contribution** to uncertainty
- ✓ **Daily log files** as audit evidence

BENEFITS

Designed for the uncertainty budget

Measurement statistics

Each value is the average of independent readings (16 by default, up to 200), reported with its spread — ready for a type A uncertainty evaluation.

Unfiltered sensor data

No smoothing or filters on the sensor data. What you see is what was measured.

Protected measurement settings

Settings that determine comparability cannot be changed by accident; the device refuses them and says why.

Traceable device identity

Each unit identifies itself by hardware facts that cannot be altered: the chip ID and the serial number of its T/RH sensor.

Timestamps from your own system

Requested measurements are timestamped by your software, so one clock governs your calibration records.

Stand-alone and secure

No cloud, no account, no app that has to stay online. Works over USB and keeps logging on its own; wireless access is read-only.

STANDALONE LOGGING

With or without a computer

- ✓ Logs every 60 s (5 s – 24 h) to a microSD card — also on battery, also without a computer.
- ✓ Each log line states where its time came from; an unset clock gives an empty date, never an invented one.
- ✓ Wi-Fi as a second, read-only channel: read measurements and download log files from a browser. Settings change over USB only.
- ✓ Documented API over USB and Wi-Fi (JSON); the API manual is available on nexchrom.nl.

Calibration on request, traceable to the SI

Supplied uncalibrated as standard; calibration is available at additional cost, in two options:

- **Qualimetric calibration certificate** — by comparison against reference standards calibrated by ISO/IEC 17025 accredited laboratories; traceable to the SI, not covered by accreditation.
- **Accredited calibration certificate** — by a laboratory accredited to ISO/IEC 17025 for this calibration.

Recalibration on site against your own references, with our assistance if needed.

Calibration range: 10 – 30 °C · 20 – 85 %RH · 80 – 120 kPa

SPECIFICATIONS

Temperature	0 – 50 °C
Relative humidity	0 – 95 %RH, non-condensing
Barometric pressure	30 – 125 kPa
Output	mean, SD and n per quantity
Averaging	1 – 200 readings per measurement
Environmental log	microSD, CSV, one file per day (UTC)

Interface	USB-C; Wi-Fi 2.4 GHz (read-only)
Real-time clock	with backup cell
Power	5 V DC via USB-C; Li-Po 3.7 V
Enclosure	150 × 82 × 30 mm
Use	indoor, 0 – 50 °C, non-condensing
Software	browser access; documented API

Not for safety-critical or life-support applications. The environmental log is indicative; use requested measurements for calibration records.

The Aura2 in development

Expected in early 2027. Register your interest to be kept informed of its release, or tell us about your balance room and software so we can advise on its use.

info@qualimetric.eu

nexchrom.nl

Qualimetric · Nijmegen, The Netherlands