Noise/Sound Level Monitor

Specifications of the sound level sensor probe

Sensor: *Class 2
Pending certification

Performance characteristics

Specifications of the Sound Level Sensor probe

- Target parameter: LAS / LAF / LAEq
- Frequency Weighting IEC 61672-1 A Filter
- Time Weighting IEC 61672-1 Slow (S) and Fast (F)
- Range of the sensor: 40 dBA to 115 dBA
- Accuracy: ±0.5 dBA (1 kHz)
- Frequency range: 20 Hz - 20 kHz
- Omni-directional microphone
- FAST mode (125 ms), SLOW mode (1 second) and CONTINUOUS mode

How it works

The noise sensor samples continuously for the entire duration of a minute, then outputs readings as specified below.

Note: the sensor samples noise levels at both a "slow" and a "fast" sampling rate, where the "slow" option samples noise levels every second, while the "fast" option samples every 125 milliseconds for more accuracy/granularity.

One minute average (dBA)
The average noise level detected over the minute window, output as an LAeq(1min) value.

One minute maximum(s) (dBA)
The peak noise values detected over the minute window. These values are available at both "slow" and "fast" sampling rates. Peak values taken with the "fast" sampling rate are more granular and more suitable to represent Lmax over a minute.

One minute minimum(s) (dBA)
The lowest noise values detected over the minute window.
These values are available at both "slow" and "fast" sampling rates.

All readings collected are uploaded every 15 minutes.
These readings can then be used on the Adroit platform to derive LAeq(15min) and Lmax respectively.

Values that come from the sensor

Noise	LAEQ (1 minute average)	Noise 1s	Sound_1s (instant measurement)
Noise 125ms	Sound_125ms (instant measurement)	Noise 1s	LAS_MAX (1 minute maximum)
Noise 125ms	LAF_MAX (1 minute maximum)	Noise 1s	LAS_MIN (1 minute minimum)
Noise 125ms	LAF_MIN (1 minute maximum)	Noise Status	Sound status

*The Noise / Sound Level Sensor has been designed following the specifications of the IEC 61672 standard for sound meters, with an accuracy of ±2 dBA similar to the Class 2 type devices and is pending certification