



TURNING NOISE & VIBRATION  
INTO INTELLIGENCE

 Made in Switzerland



---

# **Noise Locator NL1**

## **Technical Data**

**Version 2026-05-06**

## 1 Technical Specifications

The Noise Locator NL1 is an all-weather sensor that identifies the direction of arrival of the predominant noise. It pairs with an outdoor microphone unit and compatible microphone (for example, WP40 + M2340) and connects via USB-A to the XL3 Acoustic Analyzer for power and real-time data logging.

The device performs octave analysis from 63 Hz to 4 kHz and reports overall A-weighted sound levels with selectable time resolution of 100 msec or 1 s. A built-in quality indicator quantifies the validity of each measurement.

### Key features

- Identification of the predominant noise
- All-weather outdoor design
- USB-A interface for real-time communication with XL3 and power
- Octave analysis: 63 Hz–4 kHz and A-weighting
- Time resolution: 100 msec or 1 s
- Results expressed as Azimuth and Elevation
- Measurement validity: Quality Indicator **dP-I**

### Interface

- Single USB-cable for power and data
- Data transmitted via USB interface, including per-octave information
- Device powered directly via USB (< 1 W)

### Technical Specifications

- Sound direction analysis
- Frequency response: octave bands from 63 Hz to 4 kHz
- Dynamic Range: 40 dBA to 125 dBA
- Absolute Level Accuracy: 94 dBSPL @ 1 kHz  $\pm$  1.5 dB
- **Accuracy of directivity angles:**
  - In azimuth @ Elevation [-60° to + 60°], all tolerance values as [Maximum (Typical)]

| Oct. [Hz]     | 63                   | 125                  | 250                  | 500      | 1000     | 2000     | 4000     | A weighted |
|---------------|----------------------|----------------------|----------------------|----------|----------|----------|----------|------------|
| Tolerance [°] | $\pm$ 35 ( $\pm$ 15) | $\pm$ 20 ( $\pm$ 15) | $\pm$ 15 ( $\pm$ 10) | $\pm$ 10 | $\pm$ 10 | $\pm$ 10 | $\pm$ 20 | $\pm$ 10   |

- **Maximum tolerance of Spherical Directivity Angles:**

- In azimuth (all specs +/-): Elevation [-60° to +60°]

| Oct. [Hz]     | 63       | 125      | 250      | 500      | 1000     | 2000     | 4000     | A weighted |
|---------------|----------|----------|----------|----------|----------|----------|----------|------------|
| Tolerance [°] | $\pm$ 35 | $\pm$ 20 | $\pm$ 15 | $\pm$ 10 | $\pm$ 10 | $\pm$ 10 | $\pm$ 20 | $\pm$ 10   |

- In elevation (all specs +/-): Azimuth [-180° to +180°]

| Oct. [Hz]     | 63       | 125      | 250      | 500      | 1000     | 2000     | 4000     | A weighted |
|---------------|----------|----------|----------|----------|----------|----------|----------|------------|
| Tolerance [°] | $\pm$ 35 | $\pm$ 20 | $\pm$ 15 | $\pm$ 15 | $\pm$ 10 | $\pm$ 15 | $\pm$ 25 | $\pm$ 10   |

- **Residual Noise:**

| Oct. [Hz]               | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | A weighted |
|-------------------------|----|-----|-----|-----|------|------|------|------------|
| Upper Tolerance [dBSPL] | 22 | 20  | 16  | 15  | 16   | 18   | 21   | 27         |

### Environment

- Operating temperature: -10 °C to +50 °C
- Wind resistance: up to 120 km/h without damage
- Relative humidity: 25% to 90% (non-condensing)
- Rain protection: the shape, windscreen and metal grid provide excellent protection against rain, wind and dust