

Data sheet



SoundFlow Sensor

For determining acoustic pressure, acoustic particle velocity, and sound intensity in the near and far field

1. Information on connecting the Soundtec SoundFlow sensor

In order to make the most of the sensor's properties, a high-quality, low-noise data acquisition is required. This is because the velocity signal is sent at a low sensitivity but with a low level of inherent noise.

Warning: Only to be connected to AC-coupled inputs WITHOUT ICP supply.
An active input amplifier feed can damage the sensor!

BNC pressure signal (blue), BNC velocity signal (red)
Connection for measurement of sound intensity in **siIntense**.

The pressure signal voltage is approx. 4.5 VDC
and has to be blocked by the AC coupling.

Power supply: The sensor is powered via a separate connection on which there must be an uninterrupted power supply of 12-20 V.
Please use the supplied power supply unit.

2. Technical data

Sensitivity at 1 kHz (typical):

- Pressure 10mV/Pa
- Velocity 1mV/Pa* ($\text{Pa}^* = V/(m/s)/\text{Rho } c$)

Typical inherent noise:

- 20dB(A)

Calibration data (free-field) for the sensor in question in supplied file:

- PU_SERIENNUMMER.txt (the SERIAL NUMBER is 55061024, for example)

The file contains an ASCII table with the following columns:

Freq [Hz]	Sens-P [mV/Pa]	Phase-P [Deg]	Sens-U mV/Pa*	Phase-U [Deg]	Sens-PU [mV/Pa]	Phase-PU [Deg]
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The sensitivity and phase of the pressure and velocity are listed for each frequency. In addition, the table includes the geometric mean of both sensitivities and the phase difference between the pressure and velocity.

Power supply on sensor:

- 12-20V, 2mA

Supplied via mains adapter and voltage converter/screening

3. Connections

- 5-pin XLR plug on **SoundFlow** sensor
 - Connection cable from XLR to 2 BNCs for pressure (**blue**) and velocity (**red**) and 1 jack plug for 12-20V power supply (+ on center contact)
 - Voltage converter box with jack socket for **SoundFlow** sensor and connection for mains adapter
- Output 12V
Input 15-24V Current \leq 20mA
- 24V mains adapter for feeding the **SoundFlow** sensor via the voltage converter box

4. Support and further information

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