



munisense

Noise meters class 1

The INSIGHTNOW™ measurement system is optimized for remote measurements and disclosing measurement data via the internet.

Our sophisticated family of rapidly deployable, energy efficient, weather-resistant small wireless noise meters, store their measurement data in real time in the INSIGHTNOW™ cloud platform.

Our noise meters comply to IEC 60651/60804/61672 and our Class 1 meters are suitable **for legal use**.

The meters can be used indoor as well as outdoor and measures all noise parameters, 1/3 octave spectral data and supports audio streaming.

Unlike other noise meters, an INSIGHTNOW™ meter is read via the INSIGHTNOW™ cloud platform.

Consequently the meters are small and very energy efficient and the measurement data is fully optimized in this platform to suit the role and function of the user.

Self-sufficient

The INSIGHTNOW™ meters have extreme low energy consumption, and operate ten days on a rechargeable Li-Ion battery. An optional battery pack extends operation to more than 40 days. Combining a meter with a small solar panel allows continuous measurements.

Covering a geographically large area

The meters are suitable for applications where energy or the internet may not be available. Up to 40 noise meters can be wirelessly connected to a network. This network can span a large area such as an inner city. The meters are linked to the INSIGHTNOW™ platform via a gateway. Optionally the noise meters can be equipped with an internal 4G modem to connect to the platform without the remote gateway.

**Small and very energy efficient;
measuring more than 10 days**

Realtime and online

**Self-sufficient, wireless and
self-restoring**

Readout via INSIGHTNOW™ platform

IEC 60651/60804/61672 Class 1

Suitable for legal use



Munisense noise meters		models SP1 / SP9 / SPA
Standard		
IEC 60651/60804/61672	Class 1	
PTB admission	ZDS-DE-16-M-PTB-0058	
Measured value		
L_F , L_{MAX} , L_{EQ} , L_{TM5} , L_E , L_{PEAK}	Yes	
Spectra		
Octave	SPA	
1/3 Octave	SPA	
Audio (OggVorbis)	SP9, SPA	
Source direction	No	
Calculated values *	Yes	
Sampling		
(125 ms - years)	Yes	
Time weightings		
Fast, Slow, 62,5 ms	Yes	
Frequency weightings		
dB(A), dB(C)	Yes	
Measurement range		
Total range	25 - 140 dB	
Resolution	0,01 dB	
Timestamp (accuracy)	<10 ms	
Measurement times	Yes	
Microphone type	1/2"	
Weather protection		
Type	Class 1	
Moisture absorbent	Yes	
Measurement direction	Vertical	
Environmental conditions		
Temperature	-20 - 70 °C	
Humidity	20 - 99%	
Long-term outdoor measurements	Yes	
Energy		
Consumption	120 mW, SP1 250 mW, SP9/A	
Connector adapter	12 - 30V	
Supports Solar energy	Yes	
Battery (Li-Ion)		
Capacity	54WH	
Operating time (days)	10	
Network		
ZigBee router compatible	Yes	
Max. ZigBee network size	40	
Max. distance between meters outdoors	250 m	
GPRS / HSPA		
Integrated	Optional	
Via Gateway	Yes	
Integrated GPS	Optional	
Dimensions and weight		
Dimensions (L x W x H) (mm)		
Body and microphone	80 x 60 x 360	
+ Weather protection	80 x 60 x 480	
+ Weather protection, antenna	80 x 60 x 620	
Weight (grams)	1500	
Mounting		
Pole clamp (20..80 mm)	Yes	
Mast (27 mm)	Optional	

* Percentile $L_{(95)}$, L_{10} , L_{NN} / Equivalent noise L_{EQ} (1 second - 1 year) / Dose effect noise L_{EA} CEL / L_{GX} (nuisance)



Optional:

Accupack 4P1
(+ 40 days)



Solar panel TPSO1
(measuring continuously)



About Munisense

Munisense develops, sells and manages highly innovative real-time and online measurement and control solutions for business and government. Solutions that provide immediate insight in noise, vibrations, water levels, energy use, lighting, water and air quality and that allows effective control over lighting levels, ventilation, and pump activity. Our INSIGHTNOW™ meters are connected to our INSIGHTNOW™ cloud platform where the data is stored in real-time for analysis, visualisation and reporting. The information from the platform can be viewed in a range of specific visualisations any time, any where through a web browser or using our phone or tablet apps. Our applications are developed in close cooperation with universities, governments, partners and customers.

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INSIGHTNOW™