



# munisense

## Noise meters class 2



The INSIGHTNOW™ measurement system is optimized for remote measurements and disclosing measurement data via the internet. Our sophisticated family of rapidly deployable, energy efficient, wireless noise meters, store their measurement data in real time in the INSIGHTNOW™ cloud platform.

### Secure data

Our noise meters comply to IEC 60651/60804/61672 class 2 and are very suitable for temporary measurements. The meters can be used indoor as well as outdoor and measure all noise parameters, 1/3 octave spectral data and support audio streaming.

The meters also store their measurement data as well as the audio internally, so data is never lost.

### LTE-M communication

The meters use the secure IoT-communication LTE-M, which allows measurements where 4G coverage is insufficient.

The noise meter is read via the INSIGHTNOW™ platform. Consequently the meters are small and very energy efficient and the measurement data is fully optimized in the platform, to suit the role and function of the user.

### Self-sufficient

The INSIGHTNOW™ meters have an extreme low energy consumption, and operate for **six days** on the rechargeable Li-Ion battery.

An optional battery pack extends operation to **more than 20 days**. Combining the meter with a small solar panel allows continuous measurements.

**IEC 60651/60804/61672, class 2**

**LTE-M IoT communication; reliable and energy saving, 20 days operation**

**Upto 3 months internal data storage and audio**

**Realtime and online, self-sufficient, wireless and self-restoring**

**Data visualisation and analysis in powerful online INSIGHTNOW™ platform**



Munisense Class 2 meters	SP7 LTE-M
<b>Standard</b>	
IEC 60651/60804/61672	Class 2
<b>Measured values</b>	
$L_F, L_{MAX}, L_{EQ}, L_E, L_i, L_{ATM5}$	Yes
Advancing $L_{EQ}, T,$	Yes
$T = 1, 60, 180, 300, 900, 3600$ sec	Yes
$L_{EQ}, T, T = 0, 125$ sec	Yes
Frequency weightings	dB(A), dB(C)
Time weighting	Fast, Slow, Impulse, Peak
Measurement range total	30 - 140 dB(A)
Measurement ranges (overlap)	4
Resolution	0,01 dB
Accuracy	1,5 dB
Noise floor of the meter	25 dB(A)
Spectra, 1/3 Octa	31,5 Hz - 4 KHz
Audio	OggVorbis quality (11 kHz)
<b>Microphone</b>	
Type	Omni
Diameter	1/2"
Heater	Yes
Weather protection	PC
<b>Storage</b>	
Levels (second values)	6 months
Spectra	6 months
Audio	3 months
Capacity	64 Gb
<b>Network</b>	
WAN	LTE-M
Authentication (server and client)	TLS v1.2
LAN	ZigBee
<b>Energy</b>	
Consumption	0,2 W
Consumption using audio	0,3 W
Consumption using LTE-M	0,5 W
Connecting adapter	12 - 30 V
Supports solar energy (MPPT)	Yes
Battery (Li-Ion)	
Capacity	105 Wh
Operating time	4 - 10 days
<b>Environmental conditions</b>	
Temperature	-20 - 60 °C
Temperature charging Li-Ion battery	-20 - 45 °C
Humidity	10 - 99 %
Ingress Protection	IP65
<b>Other conditions</b>	
Accuracy timestamp	250 ms
GPS location	Optional
Device temperature visible online	Yes
Device humidity visible online	Yes
<b>Dimensions and weight</b>	
Dimensions (L x W x H) (mm)	
Body and microphone	80x60x400
Incl. weather protection	80x60x480
Incl. weather prot. and antenna	80x60x540
Weight (grams)	1200

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



Class 2 noise meter

**Optional:**

- Robust transport case CAS3 for max. 2 SP7 meters and accessoires
- Accupack UP1 (+ 20 days)
- Solar panel SOL (continuous measurements)
- Powersupply CH1 for lamp post (IP67)



**About Munisense**

Munisense develops, produces, supplies and manages innovative measurement solutions for businesses and governments. Solutions that give stakeholders direct online insight into noise, water quality, water levels and air quality. The information is online available at any time for visualization, analysis or periodic reports. This way managers and policymakers can measure in real time; remotely, reliable and smarter.

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