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, 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 1 and 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 support audio streaming.
The meter also stores its measurement data as well as the audio internally, so its 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 certified class 1

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

Suitable for legal use

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

Data visualisation and analysis in powerful online INSIGHTNOW™ platform

Munisense Class 1 meters	SPA LTE-M
Standard	
IEC 60651/60804/61672	Class 1
PTB Admission	ZDS-DE-16-M-PTB-0058
Measured values	
L_F, L_{MAX}, L_{EQ}, L_E, L_I, L_{PEAK}, L_{ATM5}	Yes
Advancing L_{EQ}, T,	
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	20 - 140 dB(A)
Measurement ranges (overlap)	2
Resolution	0,01 dB
Accuracy	0,7 dB
Noise floor of the meter	5 dB(A)
Spectra, 1/3 Octa	10 Hz - 20 Khz
Audio	OggVorbis quality (8 kHz)
Microphone	
Type	Omni
Diameter	½"
Heater	Yes
Microphone cable extendable	upto 10 m
Weather protection	RVS
Storage	
Levels (second values)	6 months
Spectra	6 months
Audio	2 months
Capacity	64 Gb
Network	
WAN	LTE-M
Authentication (server and client)	TLS v1.2
LAN	ZigBee
Energy	
Consumption	0,2 W
Consumption using audio	0,3 W
Consumption using LTE-M	0,6 W
Connecting adapter	12 - 30 V
Supports solar energy (MPPT)	Yes
Battery (Li-Ion)	
Capacity	105 Wh
Operating time	4 - 10 days
Environmental conditions	
Long term outdoor measurements	Yes
Temperature	-20 - 60 °C
Temperature charging Li-Ion battery	-20 - 45 °C
Humidity	10 - 99 %
Ingress Protection	IP65
Other conditions	
Accuracy timestamp	100 ms
GPS location	Optional
Device temperature visible online	Yes
Device humidity visible online	Yes
Dimensions and weight	
Dimensions (L x W x H) (mm)	
Body and microphone	80x60x360
Incl. weather protection	80x60x480
Incl. weather prot. and antenna	80x60x620
Weight (grams)	1500

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

Class 1 noise meter

Optional:
- Robust transport case CAS4 for SPA LTE-M meter 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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INSIGHTNOW