munisense

MSSPD

Class 1 NMS for long-term measurements

The MSSPD is a self-calibrating and very energy-efficient Class 1 Noise Monitoring Station (NMS). The MSSPD is designed for monitoring ambient and aircraft noise. Hence, it is optimized for reliable long-term real-time measurements. The MSSPD complies with IEC61672:2013 and ISO 20906:2009 standards.

No data loss

The MSSPD is equipped with reliable LTE-M for communication with the Munisense platform. So measurements can also be taken at remote locations with limited energy and/or internet facilities with minimal energy consumption. The internal data storage prevents loss of measurement data should the connection to the platform fail.

Data available immediately

The MSSPD streams all noise parameters, spectral information and audio in real time to the INSIGHTNOW platform, where it is available within seconds for (automatic) analysis, processing, reporting and alerting.

The system supports almost all internationally standardized noise parameters and reports the spectral content.
In addition, the MSSPD collects 12 static levels (Lxx), which are reported periodically. The MSSPD has a configurable noise event detection.
Audio can be streamed to the platform in real time for immediate listening or used for sound recognition. In addition, the audio is stored in the meter to retrieve relevant audio (automatically) afterwards.

The MSSPD supports connection with external weather station, sound recognition unit and intelligent battery packs.

NMS for permanent or long-term use

Robust and selfcalibrating system

Monitoring ambient and aircraft noise

Compact, energy efficient, mobile deployable

Connection with weather station

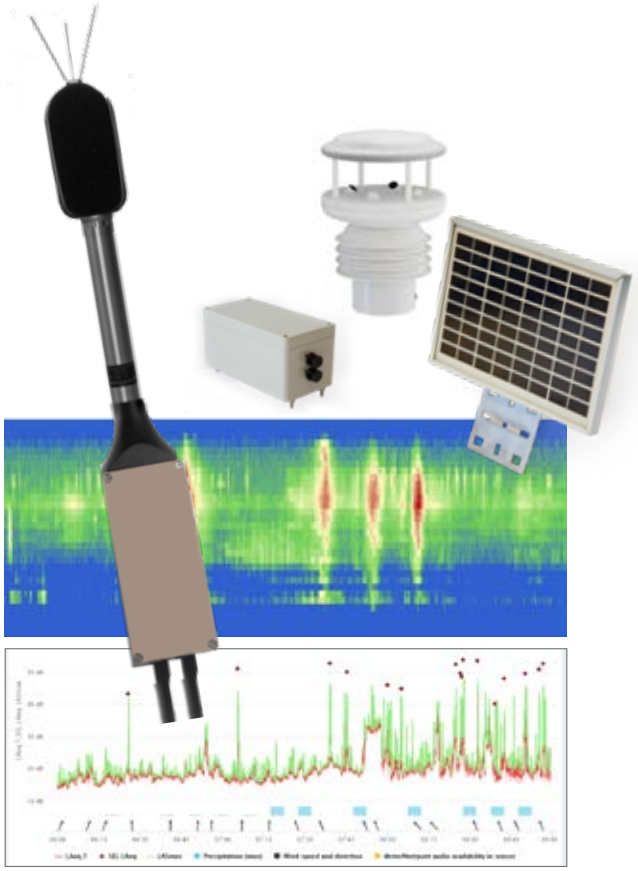
Munisense Class 1 Noise Monitoring Station	MSSPD
Standards	
IEC 60651/60804/61672	Class 1
ISO 20906:2009	Unattended monitoring of aircraft sound in the vicinity of airports
Measured values	
Supported noise levels (1 sec.)	$LAF_{MIN\ \&\ MAX}$, $LAS_{MIN\ \&\ MAX}$, LA_{EQ}, $LCF_{MIN\ \&\ MAX}$, $LCS_{MIN\ \&\ MAX}$, LC_{EQ}
Advancing L_{EQ}	T= 1, 2, 3, 5, 15, 30, 60 min.
Percentiles (LAS and LAF 125 ms)	L0.5, L01, L02, L05, L10, L25, L50, L75, L90, L95, L99, L99.5
Noise recognition detection (conform ISO 20906)	Reporting start, duration, top LAS, top LA_{EQ}, SEL
Frequency weightings	dB(A), dB(C), dB(Z)
Time weighting	Fast, Slow, Impulse, Peak
Measurement range total	20 - 140 dB(A)
Resolution	0,01 dB
Accuracy	0,7 dB
Noise floor of the NMS	5 dB(A)
Spectra, 1/3 Octa	10 Hz - 20 kHz
Audio	OggVorbis with configurable sampling frequency & quality (8 kHz)
Microphone	
Standard choice of Microtech Gefell	WME980CN community noise or WME980AN airport noise
Optional microphone	GRAS41CN or GRAS41AN
Auto calibration, setting options	duration; between 1 and 100 sec., periods in hours, days, weeks
Storage	
Levels (second values)	6 months
Spectra	6 months
Audio	3 months
Capacity	64 GB
Network	
WAN	LTE-M
Authentication (server and client)	TLS v1.2
Wireless LAN	ZigBee
Energy	
Consumption	1,2 - 1,8 W
Connecting adapter	12 - 30 V
Supports solar energy (MPPT)	Yes
Battery (Li-Ion)	
Capacity	135 Wh
Operating time	2 - 4 days 8 - 15 days (with extra accupack)
Environmental conditions	
Temperature	-20 - 60 °C
Temperature charging Li-Ion battery	-20 - 45 °C
Humidity	10 - 99 %
Ingress Protection	IP65
Other characteristics	
Accuracy timestamp	100 ms
GPS locator	GPS, GLONASS, GALILEO, BEIDOU/COMPASS, QZSS
Integrity monitoring	Temperature and humidity
Dimensions and weight	
Dimensions (L x W x H)	
Incl. weather protection and antenna	80x60x620 mm
Weight	2500 grams

Accessories

- Accupack UP2 for max. 10 extra days operation
- Solar panel SOL for continuous measurements
- Powersupply CH2 for connection to a lighting mast (IP67)
- Noise recognition unit
- Weather station Thies Clima Sensor US4920
- Robust transport case

* Percentiles can be calculated afterwards as well, with other settings in the INSIGHTNOW platform

v 1.0.2



Link with the platform

All information is made accessible via a secure internet portal and can be analyzed and reported in great detail, both in real time and historically. Access to (part of) the information can be delegated to multiple users.
The (raw) measurement data can be linked to other platforms via Open Data API.

Recycling e-waste
Of course you can deliver or send us your old Munisense devices. We then ensure that they are included in our recycling process.

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.

munisense

INSIGHTNOW™

Munisense BV
Touwbaan 38 - A0.08
2352 CZ LEIDERDORP
The Netherlands
info@munisense.com
T +31 (0)71-711 4623
www.munisense.com