



munisense

MSGD1 - GeluidDuider^{*)}

The GeluidDuider, a smart noise localizer, makes noise and nuisance visible. Simple, affordable and reliable. With real-time insight into what is happening in the environment, the GeluidDuider helps municipalities, companies and organizations to improve the quality of life, safety and well-being in public spaces.

Smart and accessible noise monitoring

The MSGD1 makes noise monitoring simple, accurate and affordable. The compact, energy-efficient design has been developed for mounting on lamp posts and fixtures via the standardized ZHAGA connector.

The MSGD1 works autonomously, has its own communication system, bridges power-free periods and does not require any specialist knowledge for installation or maintenance.

In short: connect, activate and measure.

Recognize and locate

The MSGD1 recognizes, localizes and classifies sounds in the living environment. With four sensitive, weatherproof microphones and powerful built-in processing technology, various sound sources are recognized, such as traffic, construction and industry to music, sirens and fireworks. The measurements comply with international standards IEC 60651/60804/61672 class 2 and are processed in real time in the INSIGHTNOW™ platform.

Fully integrateable into your Smart City platform

The MSGD1 uses the latest 4G/5G IoT standard, for real-time communication with the ISO27001-certified INSIGHTNOW™ platform.

All measurement data and noise events are available via an open data interface for integration within other (smart city) platforms.

In this way, sound becomes part of a data-driven approach for quality of life, safety and sustainability.

For temporary or permanent use

Quick installation on any ZHAGA connector/fixture

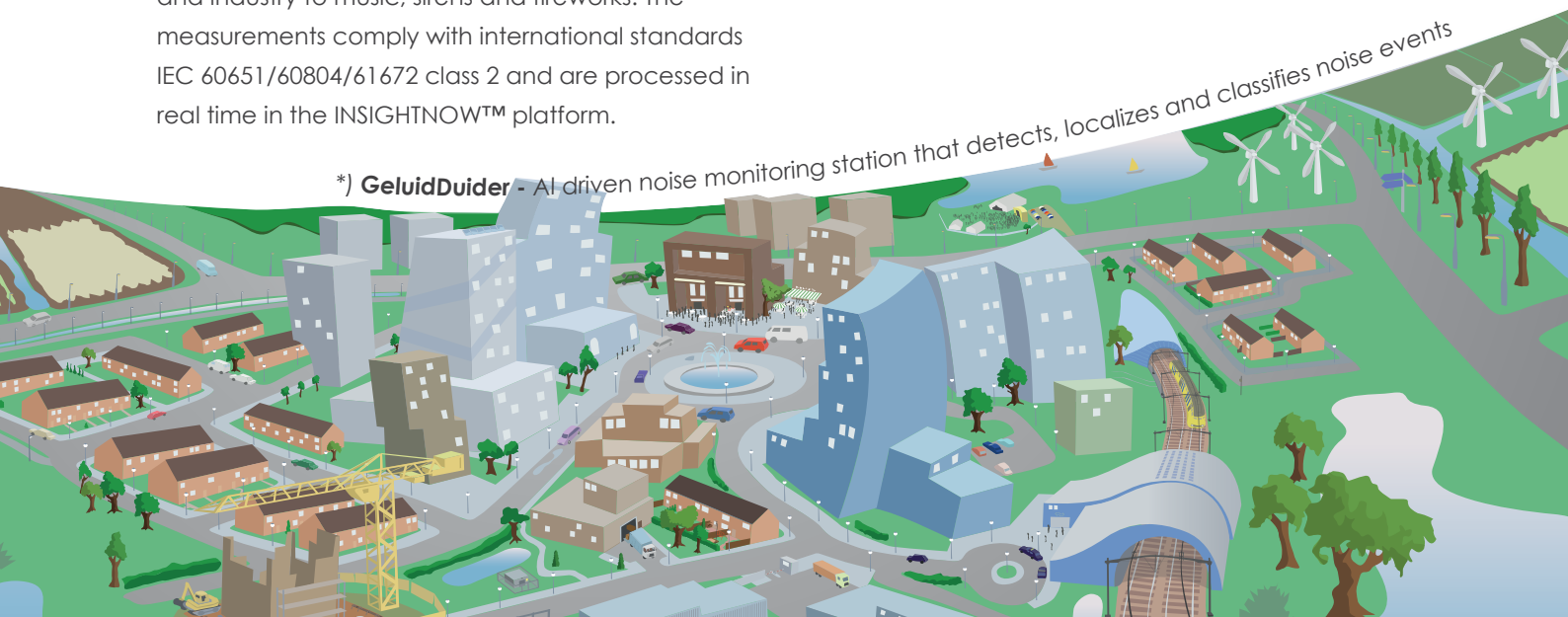
Compact, energy efficient and unobtrusive

IEC 60651/60804/61672/20906

Sound recognition and localization

Works autonomously and bridges power-free periods of up to 3 days

^{*)} **GeluidDuider** - AI driven noise monitoring station that detects, localizes and classifies noise events



Munisense GeluidDuider		MSGD1
Standard		
IEC 60651/60804/61672		Class 2
Measured values		
Supported noise levels 1 sec.	LAF _{MIN MAX} , LAS _{MIN MAX} , LAI _{MIN} , LA _{EQ} , LCF _{MIN MAX} , LCS _{MIN MAX} , LC _{PEAK} , LC _{EQ}	
Supported noise levels 125 msec.	LAF, LAS, LCF, LCS	
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	
Long term per 24 hrs	L _{day} , L _{evening} , L _{night} , L _{den}	
Noise recognition detection (conform ISO 20906)	absolute, relative level and delta	
Frequency weightings	dB(A), dB(C), dB(Z)	
Time weighting	Fast, Slow, Impulse, Peak	
Measurement range total	20 - 125 dB(A)	
Resolution	0,01 dB	
Accuracy	1 dB	
Noise floor of the MSGD	20 dB(A)	
Spectra, 1/3 Octa	12 Hz - 10 kHz	
Audio (configurable quality)	OggVorbis quality (20 kHz)	
Microphone		
Type	4x MEMS (Omni)	
Sound direction Azimuth accuracy	-180° - +180°, 5°	
Sound direction elevation accuracy	0 - 90°, 10°	
Sound recognition		
Sound recognition ML modelling	Vehicles, screaming, horns, sirenes, fireworks, music etc.	
Remotely adaptable and expandable	Yes	
Internal storage		
Period measurement storage	1-365 days	
Period audio OggOpus storage	1-365 days	
Network and connections		
WAN	LTE-M	
Authentication (server and client)	TLS v1.2	
Wireless LAN	ZigBee	
Light control	DALI	
Energy		
Consumption	1,5W / 3 days	
Connecting adapter ZHAGA	12 - 30 V	
Supports solar energy (MPPT)	Yes	
Environmental conditions		
Long term outdoor measurements	Yes	
Temperature	-20 - 60 °C	
Temperature charging Li-Ion accu	-5 - 45 °C	
Humidity	10 - 99 %	
Ingress Protection	IP65	
Other characteristics		
Accuracy timestamp	GPS 1 µSec, NTP 100 mSec	
Real time clock	Yes	
GPS locator	GPS, GLONASS, GALILEO, BEIDOU/COMPASS, QZSS	
Integrity monitoring	Temperature and humidity	
Dimensions and weight		
Dimensions (diameter x H)		
ZHAGA module	80x90 mm	
Incl. weather protection	110x110 mm	
Weight	400 gram	

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.

The power of simplicity

With the GeluidDuider noise monitoring finally becomes affordable, practical, scalable and future-proof.

One compact sensor with endless possibilities, for a living environment in which people feel comfortable, safe and heard.



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™