

SITESENS



SONITUS
SYSTEMS

ENABLING BETTER ENVIRONMENTS FOR PEOPLE TO LIVE AND WORK

The DM30N Sitesens is a combined air quality and noise monitor in a single rugged measurement station. The Sitesens includes an automated air quality sensor for measuring PM10, PM2.5 and PM1 along with a Class 1 sound level monitor. The Sitesens is designed for automated environmental monitoring on projects that require long-term accuracy, reliability and simple operation.

- MCERTS certified for PM10 and PM2.5
- Class 1 Sound Level Monitor



DUST



NOISE



HIGHLIGHTS



Simultaneous measurement of PM10, PM2.5, PM1 and sound level metrics



Automated measurement, upload and analysis with reports straight to your inbox



Heated air inlet to control moisture in the air. User options to adjust power consumption



Online reporting through the Sonitus Cloud with email and text alerts. Check compliance with limits from anywhere at anytime



Mains, battery and solar power options with low power mode for long term monitoring



All real time data is automatically pushed to the Sonitus Cloud platform, hosted on secure servers. Export options using API or FTP are available for integration with other systems



Ready to deploy with minimum effort on site. Low maintenance and simple calibration



Rugged design with consistent performance in a range of weather conditions

NOISE AND AIR QUALITY MONITORING INSTRUMENTATION

SPECIFICATIONS – NOISE

SOUND LEVEL MANAGEMENT

ACCURACY	IEC 61672 Class 1
DYNAMIC RANGE	17 to 121 dB(A)
FREQUENCY RANGE	20Hz to 20kHz
FREQUENCY WEIGHTING	A and C weighting
PARAMETERS	LEQ, L01, L05, L10, L50, L90, L95, L99, LMIN and LMAX

LOGGING

MEASUREMENT PERIOD	1, 5, 10, 15, 30 or 60 minutes
DATA STORAGE	3 years (5 minute logging)
PROCEDURE	Automatic measurement and logging

MICROPHONE

SENSITIVITY	50mV/Pa
CONNECTION	BNC to BNC (3m cable as standard)
POWER SUPPLY	Constant current ICP, 18V, 4mA

COMMUNICATIONS

WI-FI	For user interface
ETHERNET	Optional extra. Includes Modbus TCP/IP
4G MODEM & SIM	Supplied inside each monitor
USER INTERFACE	Accessed using a standard web browser

OPTIONAL FEATURES

Audio Capture

For applications where sound source identification is required, the Sitesens can automatically capture audio clips when the sound level exceeds a trigger level. The audio capture trigger level (LAeq) is set through the user interface or in the Sonitus Cloud. A short audio sample is then captured any time the trigger level is exceeded. Audio clips are automatically uploaded to the cloud for listening back or download.



Frequency Analysis

Detailed acoustic analysis can be performed with the 1/1 octave or 1/3 octave options. When this option is enabled the frequency analysis content is logged at the same time interval as broadband measurements.

Microphone heater

For colder climates we recommend the use of a microphone heater during winter months. The heater fits over the 1/2" microphone and sits neatly inside the windshield. The thermostatically controlled heater helps to keep the microphone diaphragm free from moisture and ensures reliable measurement in all conditions.

Maintenance and Calibration

Calibration to IEC 61672 Part 3 is recommended every 2 years. Calibration services can be provided by a network of approved partners around the world.



SPECIFICATIONS - DUST

PARTICULATE MEASUREMENT

PARAMETERS	PM10, PM2.5 and PM1
METHOD	Optical particle counter
MEASUREMENT RANGE	up to 1500 µg/m ³
PARTICULATE RANGE	0.35 to 40 µm

LOGGING

MEASUREMENT PERIOD	1, 5, 10, 15, 30 or 60 minutes 24 hour averages online
DATA STORAGE	3 years on-board memory
PROCEDURE	Automatic measurement and logging

POWER REQUIREMENTS

MAINS POWER SUPPLY	110V - 240V AC
CONSUMPTION	24W with heater at full power
MAX. CURRENT	2A at 12V

PHYSICAL

DIMENSIONS	430 x 410 x 185mm with 185mm inlet
WEIGHT	12kg
OPERATING TEMP.	-10 to 50°C 14 to 122°F
HUMIDITY RANGE	0 to 95 %RH

FEATURES AND OPTIONS

Heated inlet with power control

The heated inlet reduces moisture in the sampled airflow to give more consistent and accurate measurements. The heater power can be adjusted to suit the environmental conditions and to save power.

Add wind sensors

Capture all relevant environmental parameters with an ultrasonic wind sensor to measure wind speed and direction.

Ethernet output for industrial integration

The Sitesens is built to provide automated environmental compliance information. An optional Ethernet connection allows quick integration into industrial systems using Modbus over TCP/IP.

Low downtime for calibration

The low-maintenance particulate sensor can be swapped out quickly with a pre-calibrated module. This significantly reduces the downtime on site.

