

# ES-642 Cloud

The ES-642 Cloud brings together the Met One ES-642 MCERTS dust system with SvanNET, our leading cloud solution. The ES-642 Cloud is an autonomous solution with 3G/4G modem and options for solar/wind powering. SvanNET allows you to bring your PM10 or PM2.5 data in alongside advanced noise and vibration data sets.

Our dust system, the ES-642 cloud has the advantage of only needing to be calibrated every 2 years, this coincides with your noise and vibration systems keeping your calibration aligned and bringing the cost of ownership much lower than other brands. AcSoft Noise, Vibration & Air Quality cloud solutions

#### The dust system offers:

- PM10 or PM2.5 averaged and instantaneous results
- Configurable logger steps
- Advanced alarms for dust data alongside noise and vibration alarms
- Controlled input heater

## Remote Dust Monitor Model ES-642

The ES-642 Remote Dust Monitor is an industrial air-quality sensor designed to provide accurate measurements of particle concentration in both indoor and outdoor environments.

The unit is supplied in a rugged weatherproof enclosure. It includes an LCD display to provide information about particulate concentration, flow rate, instrument status and power. The electronics and optical system are protected from moisture by a built in intake heater that is humidity level controlled. Additional features include a purge air system and an automatic zero calibration routine. The sensor can be wall mounted using its built in bracket.

The ES-642 is supplied with a 10 ft cable and connector for power (15 to 40 VDC) and signal output. The ES-642 measures particulate concentration using a highly sensitive forward scatter laser nephelometer, having a measurement range of 0 to 100 mg/cubic meter or 0 to 100,000 ug/cubic meter. Optional sharp-cut cyclones are used to set the measurement level of the ES-642. As supplied it provides particulate monitoring for TSP, with the addition of the sharp-cut cyclone it can be set for particulate smaller than PM10 or smaller than PM2.5, or PM1. The accuracy of the instrument is set for particles +/-5% based on a traceable PSL 0.6 micron reference standard.



Measurement Principles	Particulate concentration by forward light scatter laser Nephelometer.
Available Cut Points	TSP Inlet Standard. PM10, PM2.5, and PM1 sharp- cut cyclone inlets available.
Measurement Range	0 to 100 mg/m3 (0 to 100,000 μ g/m3)
Display	2 X 16 back lit LCD. Provides information on operation including: Power, Flow Operation, Status and Concentration.
Zero Calibration	Automatic Zero Calibration every hour or as programmed from 1 to 999 minutes.
Power Consumption	350 mA (no heater) 1.1 A (with heater) ⓐ 15 VDC.
Operating Temperature	0 to +50°C . (Ambient Temperature Sensor Range -30 to +50°C).
Intake Moisture Control	Automatic 10 Watt inlet heater module controlled to sample RH set point.
Factory Service Interval	24 Months typical, under continuous use in normal ambient air.
Mounting Options	Wall mount bracket standard or EX-905 tripod.
Unit Weight	2.27 kg ( 6.0 lbs)
Unit Dimensions	22.9cm high, 17.8cm wide, 10.8cm deep, (9.0" x 7.0" x 4.25"), w/out inlet assy. 48.3cm high, 17.8cm wide, 10.8cm deep, (19.0" x 7.0" x 4.25"), w/ inlet assy.



#### Applications:

0	Construction
0	Infrastructure
0	Demolition
0	Military Applications
0	Environmental Clean Up Sites
0	Air Pollution Level Monitoring



## SvanNET

SvanNET is an online solution that supports multi-point connection with Svantek's noise, vibration & dust monitoring stations. To ensure the reliability and data security the SvanNET has been located on the Microsoft Azure™, the cloud platform working through global network of Microsoftmanaged data centers.



#### Multipoint Monitoring

To support noise, vibration & dust monitoring SvanNET provides online connection services such as web interface, access to data files in the monitoring station or status alarms. SvanNET is an online solution which means it doesn't require software installation and is accessible through a web browser. The responsive design enables use of SvanNET on various devices such as smartphones or tablets.

#### Dust

The dust system uses a mobile network modem to send the data to our cloud storage to both store and display data in an easy and understandable way for both the consultant and your construction team.

## SvanNET **Projects**

SvanNET Projects is a payable extension offering fully automated management of multi-point noise and vibration monitoring task.

#### Automatic Files Download (AFD)

The Automatic Files Download maintains the remote connection with monitoring stations and downloads the measurement data for each project separately.

#### Advanced Alarms

The SvanNET Projects tools are capable to analyse data files downloaded by AFD in order to generate E-mail Alarms based on exceeding the level thresholds in specified time periods (e.g. Leq for day and night). System is flexible enough to alert different people depending on the day of the week or the time of day.

#### Data Storage

The main advantage of SvanNET Data Storage is a quick access to the measurement data that can be conveniently browsed and downloaded by the time range. The data is stored on the Microsoft Azure™ cloud platform ensuring reliable connection on the global scale.

#### Data Sharing

Data Sharing allows access to selected Projects to other SvanNET users.



#### Online Data Publishing

The SvanNET offers data preview in the form of a customized website with the public or restricted access. The preview website can be customized with the custom logo and individual project name. The preview content such as map, current results or time history step can be configured in SvanNET interface that works as the Content Management System (CMS). The access to the preview can be publicly open or be protected by the password.

### SvanNET Projects -Building Vibration Interface

The ES-642 Remote Dust Monitor is an industrial air-quality sensor designed to provide accurate measurements of particle concentration in both indoor and outdoor environments.

#### **PPV Time History**

SvanNET Data Storage provides a quick access to the Building Vibration measurement data and can be conveniently browsed by the time range. The Peak Particle Velocity time history from number of points can displayed together with position of measurement points on a map.

#### **Events** List

Whenever the vibration criteria are exceeded the building vibration monitoring station records an Event indicating the highest PPV value and its dominant frequency. SvanNET automatically downloads the Events from monitoring stations together with FFT analysis and waveform associated with each Event.

#### Vibration Event Analysis

SvanNET Projects provide tools for a displaying and comparison of vibration velocity measurements with reference curves in accordance to commonly used standards such as DIN 4150-3 or BS 7385-2 that use Peak Particle Velocity and Dominant Frequency method.

#### Building Vibration Reports

SvanNET creates reports in a very fast and easy way. The user selects an event and the measurements data are automatically grouped into form of the report. The PDF or MS Word<sup>™</sup> report is generated with a single click on the export button.

## AcSoft

#### For more information:

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