

Watch Monitoring Station

The Watch Monitoring Station is Compact, Rugged and Packed with Powerful Features

Comprehensive Measurements:

- Sound;
- Vibration;
- Weather.

Turn-key solution for Field Deployment:

- Rugged cabinet;
- Large battery providing 5-days continuous run-time;
- Solar kit providing off-the-grid power;
- Main power-supply for permanent installations;
- Heavy-duty tripod for semi-permanent installations.

Compatible with Soft dB Monitoring Solution:

- Embedded 4G LTE module for data transfer, status, mail and SMS alerts;
- Embedded GPS for accurate positioning and time synchronisation.



Monitoring Station

Components

Product Code	
CMOW-00008	Watch Monitoring Station
Components	
ELEC-00059	Watch Station Embedded Controller
CABI-00009	Watch Station Cabinet with internal cables
BATP-00001	Watch Internal Battery (12V, 14Ah)
Recommended Accessories	
PCAB-00001	USB Cable, 1.8m (6') A to Micro-B
PPAN-00007	External Power-Supply (120-240VAC to 24VDC, 2A) Uses solar panel connector to feed power to monitoring station
USIN-00029	Pole-Mount bracket for Watch cabinet (mounting hardware included)
PPAN-00004	100W solar panel
USIN-00031	Adjustable bracket for 100W solar panel (mounting hardware included)
SUPP-00012	Heavy-Duty Tripod

Technical Specifications

Memory¹	
On-Board Memory Size ¹	16MB ¹
Interval Records	
Interval Records Duration	1s to 1h
Interval Records Duration Resolution	1s
Recording Mode	Continuous auto-store
Align on Real-Time Clock	Yes
Monitoring	
Cellular	4G LTE with HSPA+ fallback, embedded antennas
GPS	56 Channels GPS, SBAS, QZSS, On-Board RTC
Record Upload	Soft dB Monitoring Web Service
Environmental	
Operating Temperature	-20°C to 40°C
Storage Temperature	-30°C to 50°C
Complies to	NEMA Type 4 – IP66
Power	
Power	1.3W ²
Battery	168 Wh (12V-14Ah)
Battery Life	120h (5days) (without solar or power-supply) ³
Physical	
Height	324 mm (12 ¾")
Width	273 mm (10 ¾")
Depth	145 mm (6 5/8")
Weight	8.9kg (19.6lbs)

Technical Specifications (cont.)

Connectors	
SLM connector	BNC
OPL connector	BNC
Smart Sensor connector	M12-4 (shared for SVS, SGS or SWS)
Solar Panel Connector	Twist-Lock (shared for solar panel or external main power supply)

- 1 memory is unlimited when uploading records to Soft dB Web Monitoring Service
- 2 without sensors connected. Refer to sensor spec sheet for sensor power consumption.
- 3 battery life varies with temperature and connected sensors

Sound

Components

Compatible Sensors	
PMIC-00043	SLM Microphone for Watch ¹

¹ Refer to SLM Microphone for Watch Monitoring Station spec sheet for full specifications

Technical Specifications

Interval Records	
Data	Leq, SEL, Lpeak (A, C and Z) Lmax, Lmin, (Fast or Slow) (A, C and Z) LN% (1%, 2%, 5%, 8%, 10%, 50%, 90%, 95%, 99%), (Fast or Slow) (A, C or Z) LAFm5 (TaktMaximal) Spectra (RMS) (1/1 Octave, 1/3 Octave and FFT)
Memory Maximum Interval Records ²	97,920 (without FFT enabled) – 16,320 (with FFT enabled)
Events	
Resolution	11.025kHz, 16-bit (8-bit or 4-bit adaptive dynamic compression)
Trigger	User defined from 40 to 90 dB SPL (Slow or Fast) (A, C or Z)
Pre-Trig Duration	User defined from 0s to 3s
Total Duration	User defined from 5s to 30s
Memory Maximum Events Duration ²	11m50s (8-bit compression) – 23m40s (4-bit compression)

² Memory is unlimited when uploading records to Soft dB Web Monitoring Service

Vibration

Components

Compatible Sensors	
SVS0-00004	SVS LN Smart Vibration Sensor (8g) ¹
SVS0-00006	SVS XR Smart Vibration Sensor (40g) ¹
SGS0-00001	SGS ISEE Smart Geophone (ISEE, 125mm/s) ²
SGS0-00002	SGS DIN Smart Geophone (DIN, 125mm/s) ²
SGS0-00003	SGS HS1 Smart Geophone (5Hz, 12.5mm/s) ²
SGS0-00004	SGS HS2 Smart Geophone (10Hz, 12.5mm/s) ²
SGS0-00005	SGS ISEE Smart Geophone (ISEE, 125mm/s, Bore-Hole) ³
SGS0-00006	SGS DIN Smart Geophone (DIN, 125mm/s, Bore-Hole) ³
PMIC-00044	OPL Microphone for Watch Station ⁴

1 Refer to SVS spec sheet for full specifications.

2 Refer to SGS spec sheet for full specifications.

3 Refer to SGS Bore-Hole spec sheet for full specifications.

Technical Specifications

Interval Records	SVS ¹	SGS ²⁻³	OPL ⁴
Data	Peak Velocity Peak Velocity Frequency RMS Velocity RMS Acceleration Peak Acceleration DIN 45669 KBFT Velocity RMS ISO 8041 Wm Acceleration Peak ISO 8041 Wm Acceleration Avg. Earth Gravitational Field	Peak Velocity Peak Velocity Frequency RMS Velocity RMS 1/3 Oct. Velocity Peak 1/3 Oct. Velocity DIN 45669 KBFT Velocity	Peak Overpressure Level
Memory Maximum Interval Records ⁵	81,600	12,240	--- ⁶
Events	SVS ¹	SGS ²⁻³	OPL ⁴
Data	All data from Interval Records (0.093s data rate)		
Waveform	Acceleration or Velocity (X, Y and Z) (2,756 kHz)	Velocity (X, Y and Z) (2,756 kHz)	Overpressure (1,378 kHz)
Trigger	Peak Acceleration or Velocity	Peak Velocity	Peak Overpressure
Pre-Trig Duration	User defined from 0s to 3s		
Total Duration	User defined from 5s to 30s		
Memory Maximum Events Duration ⁵	9m28s	9m28s	--- ⁶

1 Refer to SVS spec sheet for full specifications.

2 Refer to SGS spec sheet for full specifications.

3 Refer to SGS Bore-Hole spec sheet for full specifications.

4 Refer to OPL microphone for Watch spec sheet for full specifications.

5 Memory is unlimited when uploading records to Soft dB Web Monitoring Service

6 OPL data and waveform is included in SVS/SGS vibration records and events

Weather

Components

Compatible Sensors	
PENV-00004	SWS Smart Weather Sensor ¹

¹ Refer to SWS spec sheet for full specifications.

Technical Specifications

Interval Records	
Data	Atmospheric Temperature (Min, Max and Avg.) Atmospheric Humidity (Min, Max and Avg.) Barometric Pressure (Min, Max and Avg.) Wind Speed (Min, Max and Avg.) Wind Direction (Min, Max and Avg.) Rain Rate (Min, Max and Avg.)
Memory Maximum Interval Records ¹	142,800

¹ Memory is unlimited when uploading records to Soft dB Web Monitoring Service