



NTX® srl

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Seismograph **SEISMOGRAPH MSG**

*An innovative seismic waves
and overpressure in air
MONITORING UNIT*

Main features:

- Standard sample rates up to 4000 samples per second
- 14 days monitoring without battery charging
- Self trigger (wave form) and Advanced Bar graph modes standard
- All results displayed on one LCD screen with back light
- Advanced cellular and modem operations including automatic email of data
- Unique option to name and save set up information
- Help menu on LCD
- No wait time between events so you will not miss consecutive events
- Quick and easy set up procedures
- Standard event memory storage for 700 events
- Complies with ISEE seismograph standards
- 2 Year Warranty on Parts & Labor



Working

The transducers (geophone and microphone), after being positioned, are connected to the acquisition control unit by means of aluminum pins.

After switching on the control unit, simply log in to the registration page.

The recording of an event is performed only when the measured values exceed a predetermined alarm threshold (called trigger), keeping the measurement also for 0.5 s or 1.0 s preceding the trigger moment. Once the recording is completed, the instrument checks the transducers to verify correct operation and positioning, then continues the measurement by resetting for the subsequent recording (reset time 50 ms).

In the case of prolonged measurement over 84 hours without exceeding the alarm threshold, and therefore without registration, the instrument automatically performs a check on the transducers to verify correct operation and positioning (self-calibration test). Calibration tests are stored in memory, confirming the measurement without exceeding the trigger threshold.

Certifications

CE certificate of compliance with European legislation in the field of electrical equipment.
Calibration certificate of the microphone and the geophone.

The annual calibrations of the MSG monitoring station are carried out in the authorized NTX laboratory in Lonato. The calibration times are 4 h.



TECHNICAL SPECIFICATIONS

SEISMIC	
Seismic Monitoring (with Standard Triaxial Geophone)	0 – 10 in/s (0-254 mm/s) - Standard
Range	.005 in/s
Resolution	+/- 3%
Accuracy	< 150 lbs/ft ³
Transducer Density	2 – 400 Hz (1 Hz optional)
Frequency Response	
SOUND	
Weighting Scales	Linear (flat)
Linear Range	92-148dB
Linear Resolution	.0025 milli bars
Linear Accuracy	+/- 1 dB or +/- 10 % whichever is greater
Linear Frequency Response	2 –400 Hz
WAVEFORM RECORDED DATA	
Record Modes	Waveform & Manual
Seismic Trigger Range	.0075-10 in/s (.19-254 mm/s) , no trigger, manual
Sound Trigger Range	Lower Levels Optional
Linear	92 - 148 dBL, no trigger (other levels optional)
Sample Rate	1024 – 4096 Standard, Higher rates optional
Record Time	1-80 seconds
Cycle Time	No wait time between events
Storage Capacity	700 one second events standard @ 1024 samples/s
BAR GRAPH DATA	
Record Modes	Bar Graph (Histogram)
LCD Readings	Real Time update 1-60 seconds selectable
Bar Recording Interval	1, 10, 20, 30, 40, 50, 60 seconds
Summary Interval	5, 15, 30 minutes, 1, 2, 4, 8,12, 24 hours
Summary Data	Peak R,T,V + Sound & Frequencies for each choice of vector sum and displacement
PHYSICAL SPECIFICATIONS	
Dimensions	6 x 4.25 x 3 in. (152 x 108 x 76 mm)
Weight	4.1 lbs. (1.9 kgs)
Battery	6 Volt, gel type rechargeable, 14 days duration
Display – LCD	8 lines x 21 characters with backlight
PC Interface	RS-232 & additional 15 pin auxiliary connector
Auxiliary Inputs and Outputs	External trigger & remote alarm
Operating Temperature	0 to 1200 F (-8 to 500 C)
Remote Communications	Full function RS-232 Port, compatible with telephone, GSM, Satellite, RF
Warranty	2 Years, Parts & Labor
Remote Communications	Full function RS-232 Port, compatible with telephone, GSM, Satellite, RF
Warranty	2 Years, Parts & Labor