

Recovib TREMOR H

ALL IN ONE VIBRATION MEASUREMENT INSTRUMENT

Tremor is an easy to use robust and compact vibration measurement device.

It is recommended for all vibration measurement applications, whether occasional or long-term.

Therefore, Micromega Dynamics offers selling and renting packages combining Cloud modules and devices.



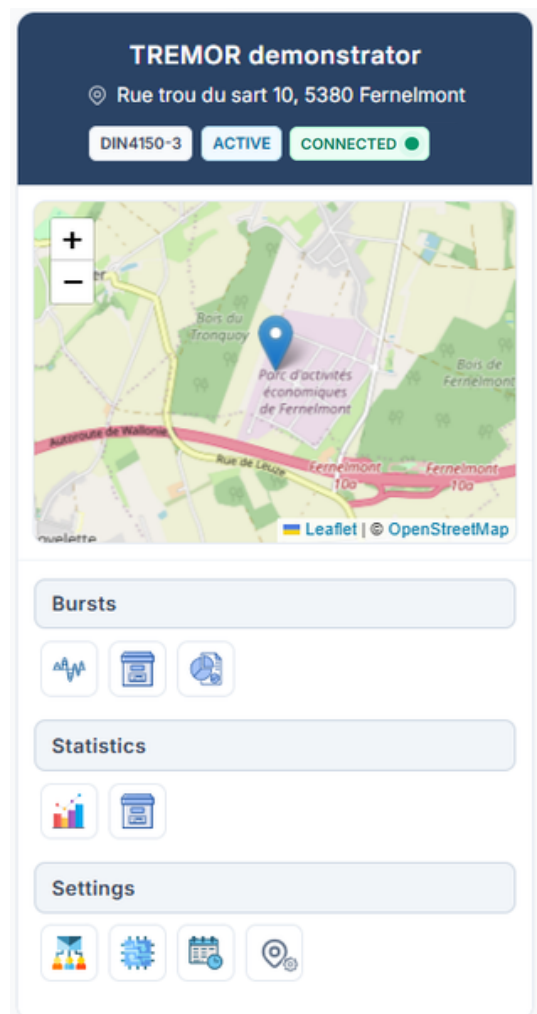
Tremor integrates:

- A high resolution MEMS 3 axes accelerometer
- A multi-purpose acquisition and monitoring systems
- A 4G router
- A 24V DC power supply

It is compliant to several norms such as:

- DIN 4150-2, 4150-3
- ISEE
- NP2074
- In preparation French standards
 - “Quarries” regulations in accordance with the decree of 22 September 1994
 - “Classified installations” regulations in accordance with the circular of 23 July 1986
 - Railways in accordance with SNCF Instruction IN1226

For specific application tailor made signals treatments are available providing burst and statistic’s data.



Application



Tremor enables the vibrations generated by Human activities to be monitored in real time and ensures that they do not cause any damages to surrounding infrastructures.

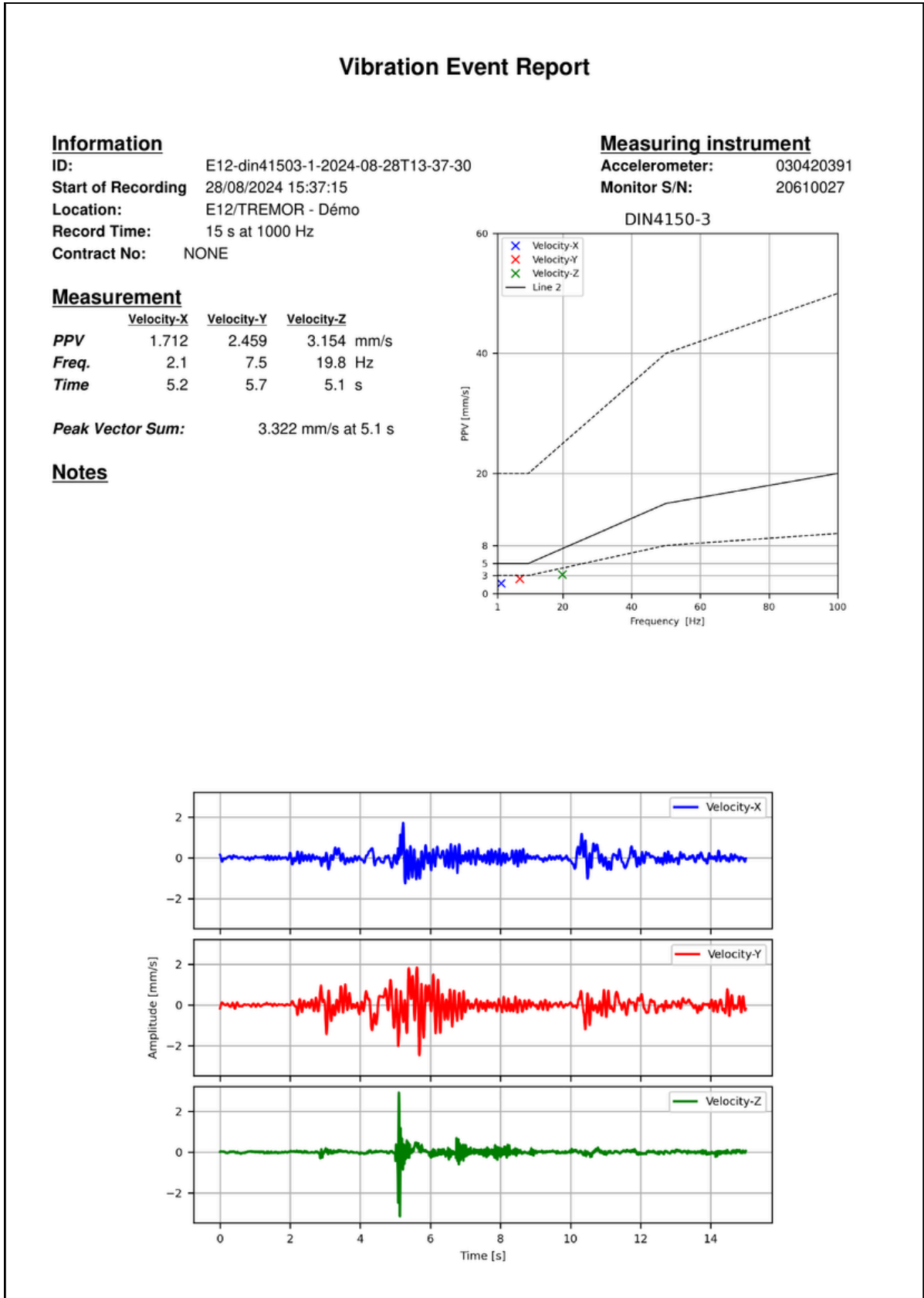
It is installed in area around which vibration can be emitted by :

- Construction/Demolition Sites
- Pile Driving
- Blasting from Quarries and Mines
- Train, Metro or Tram on rail
- Trucks or buses on road
- ... Many more

Several users can be connected to the Cloud receiving SMS, Email messages and reports enabling them to react to various events.



Reports - DIN 4150-3 example



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Specifications - Acquisition system

INPUT CHARACTERISTICS	Lower frequency limit	0Hz (DC)
	Upper frequency limit	10kHz
	Sampling rate per channel (local use)	Up to 42767sps
	Sampling rate per channel (remote use)	Up to 8000sps
	Number of channels	4
	Differential input	±5V
	Resolution	24-bits
	Dynamics	>110dB
	Synchronization	All channels sampled synchronously
I/O	DI/DO	2DI +2DO
COM	Communication	LAN/4G
POWER SUPPLY	Sensor Power Supply	20VDC / 30mA per channel max.
	Device Power Supply	24 ± 2 VDC @150mA
	Device Power over Ethernet (PoE)	Yes
ENVIRONMENTAL CHARACTERISTICS	Operating Temperature range	-40 to +75°C
	Non-Operating Temperature range	-40 -to +85°C
	Protection grade	IP65
	Relative humidity	5 - 95% without condensation

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Specifications - Sensor

OUTPUT CHANNEL	Output Range	$\pm 4V$
	Supply Voltage	10-30 VDC
	Lower frequency limit	0 Hz (DC)
	Non-linearity	$\pm 0.5 \% \text{ F.S.}$
	Sensitivity Error	0.5% typ. - 1 % max.
	Transverse Sensitivity	2 % typ. - 3 % max.
	Offset	0.2 % F.S. typ. - 0.5 % F.S. max.
	Destruction limit	$\pm 5000g$
	Range	+/- 2g
	Sensitivity	2000 mV/g
	Freq. Response (-3dB)	0-400 Hz
Noise	5 $\mu\text{g}/\sqrt{\text{Hz}}$	
ENVIRONMENTAL CHARACTERISTICS	Operating T° Range	-40 to 85°C / -40 to 185°F
	T° coefficient of sensitivity	$\pm 0.03 \% / ^\circ\text{C}$
	T° drift of zero point	$\pm 0.02 \% \text{ F.S.} / ^\circ\text{C}$
	Protection grade	IP67
MECHANICAL DATA	Weight Without Cable (g)	104 gr
	Case Material	Stainless Steel
	Mounting	3.2 mm diameter holes (4x)