

### The 'Vibration Monitoring System'!



## **SUMMIT M Vipa**

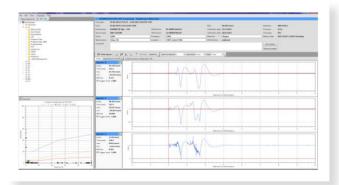
# The monitoring system for infrastructure, engineering and microseismic

SUMMIT M Vipa is a three channel seismograph for vibration monitoring with an additional channel for noise monitoring. The units can be linked together to build up a monitoring network. With integrated parameter and data control facilities - SUMMIT M Vipa provides structural vibration monitoring according to all common standards. 24 bit technology ensures ultrasensitive vibration monitoring for continuous and event based recording. SUMMIT M Vipa comes with easy setup routines and long duration batteries.

#### **Mobile Vibration Monitoring!**

- Easy to use, lightweight, ruggedized
- 24 bit technology
- 4 GB internal memory, virtually unlimited external storage via USB port
- Internal GPS for time sync
- Internal modem and Ethernet for easy remote access and network setup
- Internal Li-Ion Battery

Windows-based report software



Technical Specifications		
Channels	3 channels (X-, Y-, Z- vibration) 1 aux-channel (acoustic)	
Sample Interval	1 kHz, 2 kHz, 5 kHz, 10 kHz	
Frequency Range	DC - 5 kHz	
Recording Mode	Continuous or event based	
Trigger Mode	Amplitude threshold for each channel, Trigger also on KB and vector sum	
Record length	1 sec to 60 sec per file	
Pre-trigger length	0 sec to record length-1	
A/D Converter	24 bit	
Signal Input Range	± 5 V differential input	
Measurement range	175 mm /s with standard sensor DMT-3D/DIN, larger ranges on request	
Time synchronisation	Internal GPS module (ext. Antenna), absolute time accuracy : < 10 µs	
Data Storage	Internal 4GB or external USB- mass-storage device	
Instantaneous Dynamic Range	≥ 113 dB @ 1000 Hz sample rate	
Crosstalk rejection	≥ 110 dB (between all channels)	
Total Harmonic Distortion	≤ -100 dB	
Common Mode Rejection	≥ 105 dB	
Gain Accuracy	< 1 % between channels	
Data Communication	100base-TX Ethernet, internal HSPA/EDGE/GSM Modem	
Internal Battery	Li-lon, typical life time >60 hours	
External Power Supply	9-18 V DC, max 15 W during battery charge	
Display	Colour Graphical LCD with 320 x 240 resolution	
Dimensions	30 x 25 x 12 cm	
Weight	3.6 kg	

<b>DMT</b>	<b>GmbH</b>	& Co.	KG
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Supply

Environmental Specifications		
Operation Temperature	-20°C to + 70°C	
Humidity Range	0 – 95 %	
Protection Class	IP 67	
Case	Solid waterproof housing deployable in any surface environment	

Connectors		
USB	External storage on memory stick or hard disk drive	
Ethernet-LAN	Router, switches, PC	
Mobile Antenna	External mobile GSM antenna	
GPS Antenna	External GPS antenna for precise time stamp	
Vibration sensor	<ul> <li>External geophone vibration sensor</li> <li>3D sensor or splitted sensors, borehole sensors</li> <li>12 V DC power supply provided for active sensors</li> </ul>	
Acoustic sensor	Microphone plug	
Digital IO	Multipurpose IO for accessories (alarm devices, trigger devices,)	
Serial IO	External RS232, e.g. for external modem	
Power	External 9-18 V DC power supply	

Specifications may be subject to technical changes

### **Available Extension / accessories**

Seismology Extension	Increased sensitivity and dynamic range of up to 122 dB, additional sample rates: 125 Hz 250 Hz, 500 Hz
Printer	External serial protocol printer
Alarm switch	External Relays to switch external alarm devices, can be operated either via digital I/O interface of VIPA or remotely via mobile network (requires SIM-card)
Intelligent Sensor	External sensor supply for

External sensor supply for connecting third party ICP-type

sensors