SolGeo
INSTRUMENTS

Mas24-DY

The high resolution integrated unit (24bit sampling and > 135 db) up to 12channels, can operate as a strong motion vibration acquisition unit or micro seismic recorder, according with international standards DIN45669 DIN4150-3-1 and UNI9916.

Suitable for civil and industrial vibrations monitoring or for natural or anthropic seismic monitoring.

Internal GPS receiver for synchronization of all acquisition units without any connection.

Software packages for data setting, processing and visualization.

Signals stored directly on PC. Remote downloading is provided by GSM-GPRS modem, UMTS 3G, WiFi orEthernet network.

Signal recording in case of event plus

SYSTEM	
Input Channels	From 1 to 6 sensor channel (12 optionally)
Configuration	Standalone or multi-station network
Timing	Sampling and Internal RTC synchronized via GPS or remote control – all channels simultaneous sampling
Triggering Mode	Threshold level and/or STA/LTA, HP fiter, selectable for eachchanne
Recording Mode	Internal/external trigger, continuous, selectable post- trigger length Recording of weighted pick values (min-Max), according to DIN 4150 part II, selectable 1 to 100s
Data Storage	8 Gb standard till to , 64 GB optional
Diagnostics	Battery voltage, temperature, sensors test
Power Consumption	2W for 6 channel group (active)
Communication	Ethernet TCP/IP via cable/wireless, modem GPS, USB2.0, UMTSHSDPA
File formats	Solgeo EVE, MiniSEED, other on request
Support Software	Dymasoft & Vibrosoft
24 BIT MODULE	
Converter	Individual 24-bit Sigma/Delta per each channel, with DSP each 6 channels, integrated digital antialiasing fiter
Input Level	Up to 48 Ch. 5Vpp, 20Vpp, differential Input
Sensor Calibration	Built-in, positive or negative edg
Sampling	10 Hz - 10 KHz
Bandwidth	DC – 4,000 Hz
Dynamic Range	>135 dB@100Hz
Programmable Gain	1-2-4-8-16-32-64-128
Filter Anti Aliasing	1-2-4-8-16-32-64-128 Digital Filter FIR. Frequency attenuation by Nyquist (1/2 sample rate) >–120dB, cut frequency 0,4 of sample rate
Output Data Format	32 bit signed in user selectable format
EXTERNAL INTERFACES	
GPS Antenna	GPS time synchronization, RS-422 interface
Power	9VDC to18 VDC (adapter 120/240 V AC optional), automatic turn OFF when battery <10,2 V, turn ON >11,8V
Seismic Sensors	Seismometers, Accelerometers Force Balance, ICP, piezoeletrics, MEMS, Geophones
Other Sensors (Optional)	Extensometer, Termocouples, Hydrophones, Piezometers
Other Interfaces	USB 2.0 / LAN / RS-232 / Modem ADSL-FO-GSM-GPR-3G / WiFi
PHYSICAL CHARACTERISTICS	
Container Features	Metallic cabinet default protection IP65
Working Temperature	20 °C - +70 °C
Dimensions (LxWxH)	300 x 210 x 70 mm
Weight	2,1 Kg
Umidity	0-100% non condensed