DYNAMIC DATA ACQUISITION PORTABLE TYPE SYSTEM

TECHNICAL FEATURES

- ✓ Type of converter: 24 bit sigma-delta per channel;
- ✓ Dynamics and consumption: dynamic> 130 dB - consumption 2.5 W;
- ✓ Number of UAR channels: 3 channels. Differential input with surge protection;
- ✓ Full scale: Conversion: 0.32 - 3.2 - 8 - 16 - 32 Volt PP;
- ✓ Usable: 0.2 - 2 - 5 - 10 - 20 Volt PP;
- ✓ Conversion rate: 31.25 - 50 - 62.5 - 100 - 125 - 200 - 250 - 400 - 500 Hz. Software-selectable;
- ✓ Corresponding passband: 12.9 - 20.5 - 25.7 - 41.5 - 51.5 - 83 - 102.9 - 164 - 205.9 Hz;
- ✓ Anti-aliasing filter: FIR digital filter. Attenuation at Nyquist frequency (1/2 sampling rate) by -130 dB;
- ✓ Event storage: standard on Compact Flash SanDisk 512Mb memory card;
- ✓ Pre-trigger: up to 40.000 samples (> 100 sec three125Hz channels 125Hz);
- ✓ Recording parameters selected via software: post-trigger length, minimum and maximum length single recording. Sequential recording until space available is full or circular;
- ✓ Channel trigger: Sta / Lta / STA threshold, independent threshold per channel. STA / LTA mode with separate TRIGGER / DETRIGGER RATIO and LTA partial lock during the event;
- ✓ Trigger filters: Butterworth 6 dB / octave highpass, lowpass or passband type that are selected through incremental steps via software;
- ✓ Station trigger: separate trigger / detrigger threshold sum of the weights of the individual channels;
- ✓ Time reference: internal absolute time synchronization and sampling connected to GPS satellite network reference, internal receiver, external antenna with 3m cable;
- ✓ Data acquisition unit synchronized network: sampling synchronized by GPS satellite network recording Trigger synchronized via connection cable;
- ✓ Additional measurements: power supply voltage, inside temperature and two external sensors;
- ✓ Transmission formats: communication protocols for alerts via SMS, event download via analog modem or ISDN, ADSL, GSM, GPRS, via Internet / LAN, also Wireless (optional);
- ✓ Interface: serial RS232 or Ethernet. GSM Siemens MC35 modem (optional);
- ✓ Power supply: 7Ah internal battery, 12 hrs life (without GSM modem). Supply from 110 / 220Vac network through battery charger / power supply included as standard;
- ✓ Temperature: from –20 to 70 ° C;
- ✓ Software provided: EDAXSOFT software for connection and data acquisition, parameter setting, transferring events, monitoring and recording in real time the signal read and display of the station's events. System sends automatic warning or text message, data download via GSM, GPRS modem or via Internet on LAN. Standard program for events collection and conversion to SEISAN, ASCII and ISMES-PRAXSOFT formats.

CE product compliant with European directives

The 3 or 6 channel high resolution integrated unit (24 bit sampling and dynamic> 130 db) can work as vibration or seismic/microseismic data acquisition unit in compliance with the international applicable standards DIN4150-3, DIN45669-1 and UNI9916.
It is typically used for vibration monitoring of civil and industrial structures, such as bridges, overpasses, bell towers, chimneys and structures in general, to check for movements caused by seismic events, either natural or caused by explosions, occurred during excavation or slope trimming and to identify the seismic nature of locations.
The high resolution makes this data acquisition unit suitable for micro-seismic applications as well as data acquisition in case of strong movements.
The data acquisition module works in combination with an interface hardware, protection and internal power supply with rechargeable battery. It is housed inside a IP67 protection level, shockproof plastic case. Input and output connections via IP67 connectors from panel. The unit comes with manuals, configuration and communication EdaxSoft package and VIBROSOFT data display and processing software.
The data acquisition unit digitalizes the input signals and formats them for storage onto a Compact Flash internal device or directly on a computer. Via GSM-GPRS modem or Ethernet network, summary data and the signals can be transferred to a remote central unit. In addition to recording the signal in case of an event, the unit records also the minimum and maximum values for each channel in a non-volatile memory buffer. The unit is configured for 3 or 6 channels, thus it can acquire up to 6 monoaxial accelerometers or 2 triaxial accelerometers triades with version 6.SD. Time reference is synchronized via the receiver's internal GPS. Sampling of each data acquisition unit is synchronized to the GPS satellite network, thus providing absolute precision and sampling and simultaneous synchronization of all the data acquisition units, with no need for connections.

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