



Application

- Signal conditioning in laboratory or field with IEPE compatible piezoelectric sensors for acceleration, force or pressure and IEPE
- Front end for PC based data acquisition systems
- Measurement and display of RMS and peak values
- Vibration monitoring with relay output
- Remote measurement via Ethernet interface and web browser

Properties

- Low cost solution for multichannel applications
- Incremental gain from 0.1 to 1000 for normalization by input of transducer sensitivity
- Wide frequency range from 0.1 Hz to 100 kHz
- Plug-in high pass, low pass and integrator modules
- Display of RMS and peak values with mechanical units
- Full IEEE 1451.4 TEDS support with automatic transducer sensitivity normalization
- Ethernet interface and embedded web server for remote RMS / peak measurement and setup
- PC control of up to 8 units via serial interfaces (daisy chain)
- PC control software included; additionally ASCII command set
- Relay output with adjustable trip levels
- Shared output and Sub-D socket* for outputs 1 to 8 at rear panel
- Overload and sensor indicator LEDs for each channel
- Operation with mains plug adapter or DC supply
- 19" rack mounting enclosure with low depth



Technical Data

Measurement functions

| | | |
|------------------------------------|---|------------------|
| Measurands | Vibration acceleration | |
| | Vibration velocity/severity; with FBV integrator module | |
| | Vibration displacement; with FBD integrator module | |
| Overall values | RMS and peak display on LCD (multiplex) | |
| Measuring range acceleration | 0.00001 to 5 (Transducer sensitivity 1000 mV/ms-2) | m/s ² |
| | 0.001 to 500 (Transducer sensitivity 10 mV/ms-2) | m/s ² |
| | 0.1 to 50000 (Transducer sensitivity 0.1 mV/ms-2) | m/s ² |
| Voltage gain | 1; 10; 100; 1000 | |
| Gain selection | Push buttons; Interface | |
| Input of transducer sensitivity | 5 digits; 0.1 to 12000; keypad and display or interface | |
| Accuracy | ±0.5 (5 to 100 % full scale; band center; 0 to 30°C) | % |
| Cross-talk attenuation | >80 | dB |
| Output noise | <0.4 (0 dB; 0.1 to 30000 Hz) | mVRMS |
| | <5 (20 dB; 0.1 to 30000 Hz) | mVRMS |
| | <6 (40 dB; 0.1 to 30000 Hz) | mVRMS |
| | <10 (60 dB; 0.1 to 30000 Hz) | mVRMS |
| Lower frequency limit acceleration | 0.1 to 1000 (with FB3 filter module) | Hz |
| Lower frequency limit velocity | 3 (with FBV integrator module) | Hz |
| Lower frequency limit displacement | 5 (with FBD integrator module) | Hz |
| Upper frequency limit acceleration | 100 to 100000 (with FB2 low pass module) | Hz |
| Upper frequency limit velocity | 1000 (with FBV integrator module) | Hz |
| Upper frequency limit displacement | 200 (with FBD integrator module) | Hz |
| Indication | Graphical LCD for setup and measurement; 4 digits | |
| | 2 gain LEDs per channel | |
| | 8 IEPE LEDs: OK; cable break; short circuit | |
| | 8 LED for overload | |

Connectors

| | | |
|-----------------------|---|----|
| Input channels | 8 | |
| Input signals | IEPE; AC voltage <±10 V | |
| Input connector | 8 x BNC front | |
| IEPE constant current | 3.5 to 4.5 | mA |
| TEDS support | IEEE 1451.4; templates 25, 27, 28 | |
| Output connector | 8 x BNC front | |
| | BNC front; D-Sub 25 rear | |
| | ±10 V | |
| | Impedance <100 Ω | |
| Relay output | 30 VAC; 1 A; individual trip level for each channel | |
| Digital interfaces | 2 x RS-232 rear; master/slave; daisy chain | |
| | Ethernet (RJ45); 10 Base-T; rear | |

Power Supply

| | | |
|-------------------------|-------------------------|-----|
| External supply voltage | 10 to 28 | VDC |
| External supply current | <1500 | mA |
| Supply connection | DIN 45323; 1.9 mm; rear | |

Case Data

| | | |
|-------------------------------|---|----|
| Dimensions without connectors | 483 x 44 x 124 (L x W x D) | mm |
| Case material | Aluminum, hard anodized | |
| Weight | 1700 | g |
| Operating temperature range | -10 to 50 (95 % rel. humidity without condensation) | |
| | °C | |

Scope of delivery Mains plug adapter 115/230 VAC; 15 VDD; <1600 mA

Optional accessories FB2/FB3 filter modules; FBV/FBD integrator modules

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