Exact proof of transport quality

MONI LOG® ShockDisplay curve *plus*

- Extremely robust shock recorder
- Registers all mechanical shock events and stores the 100 largest with signal progression
- Measures direction, strength, time, duration, minimum and maximum of the effect
- GPS receiver for precise positioning
- Inclination measurement on board
- Easy operation, display, alarm function, long operating time
- Combi-sensor for temperature, air humidity and pressure
- Tamper-proof, multi-level password protection
- Powerful analysis software

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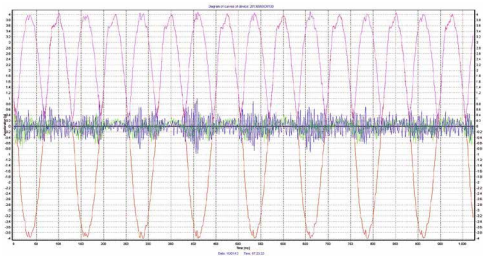
Power transformers, generators, turbines or switchgear have a highly precise manufactured and sensitive inner life. The extremely robust data logger itself monitors the slightest influences in the special transport of such power generation and distribution systems. Highly sensitive shock sensors record all mechanical shock events and store the 100 largest with the direction, strength, time, duration, mini-mum and maximum of the effect. Also inclinations, such as the rolling of a ship, are measured. A complete signal progression is documented for each shock and inclination event. The ShockDisplay curve plus determines the exact position via an integrated GPS receiver. With an external sensor, further data such as temperature, relative humidity and absolute air pressure can be recorded in parallel – important for transport under protective gas or for temperature-sensitive and moisture-sensitive transport goods. The powerful SYCUR analysis software is included. Tampering is excluded by means of a multi-level password protection, internal memory support, checksums and logging of all processes relevant for the measurement data acquisition. With the device, the causes of transport damage can be precisely determined over very long periods of time. The ShockDisplay curve plus meets all standards and guidelines for shock measurement and transport monitoring.



Technical data	
Shock measurement:	100 shock events with the largest amplitude, three-dimensional (X/Y/Z), also stored as signal characteristic with 1024 ms duration at 2 kHz sampling rate, measurement range 5, 10 or 20G as well as special versions, frequency range 1 ... 512 Hz (3 dB, digital frequency filter, Bessel 4th order), minimum shock duration recording level adjustable for each shock direction
Inclination measurement:	-1g to +1g corresponds to -90° to +90° inclination angle, additional 64 acceleration curves within the range from -6 g to +6 g in 3D axes, dynamic frequency range 0 to 1Hz, measurement interval can be set in minutes, recording period up to 16,000 measurement intervals, self-calibrating in relation to the earth's axis
Temperature, humidity, pressure measurement:	factory-calibrated combination sensor; temperature -40 to +85°C, 0.1K resolution, ±1K accuracy, humidity 0.2-100% RH, 0.1 %RH resolution, accuracy ±3 % RH (20 - 80 %RH), ±5 %RH (0-100 %RH), pressure 260 - 1260mbar, 1mbar resolution, accuracy ± 1 mbar (T=25°C), ±2 mbar (0°C to + 80°C)
Display and controls:	illuminated display and four function buttons, multilingual and password-protected menu navigation
Connections:	RS-232 and USB 1.1 for linking to a PC for configuration and evaluation
Case, mass, dimensions:	Painted aluminium, IP 65 rating (special solutions for increased requirements on request) 1.1 kg with batteries, 218 x 100 x 44 mm
Ambient conditions:	-20 ... +75°C with alkaline batteries, -40 ... +80°C with lithium batteries, -20 ... +65°C with rechargeable batteries, max. 98% relative humidity, non-condensing, special versions for increased requirements
Power supply:	2 type D (R20) cells: alkaline, NiMH, Li (on request) or connection of external batteries with 2 to 10 V possible, operating time up to 6000 h with alkaline batteries
Fixed parameters:	Measurement ranges 5, 10, 20 G (special versions on request). Filter characteristic of the digital frequency filter up to 512 Hz
Programmable parameters:	recording level from 5 % of the measuing range end value, min. event duration 1ms, alarm thresholds for shock amplitude, recording level to inclination measurement, password and on/off protection, time, language de, eg, fr
Software:	for WIN Vista/7/8/10 operating systems, graphic and tabular signal analysis with export functions, frequency analysis to EN 13011, device parameterisation, display of the device's status data and active periods, Help function, multilingual menu navigation (de,eg,fr)