RISK LOGGER
for monitoring risk situations

MONILOG®
RISK LOGGER



TRANSPORT RISK

STORAGE RISK

OPERATIONAL RISK

MONILOG®

ShockDisplay smart link

EVIDENCE OF TRANSPORT QUALITY IN REAL TIME

SHOCK · INCLINATION · VIBRATION · ONLINE TRACKING · TEMPERATURE · HUMIDITY · PRESSURE · GPS · LIGHT INCIDENCE

- *Extremely robust shock recorder monitors sensitive transports in real time*
- *Registers all mechanical shock events and stores the 500 largest with signal progress*
- *Measures direction, strength, time, duration, minimum and maximum of the effect*
- *Continuous recording of temperature, air humidity, air pressure and light*
- *Conformity with all relevant norms and standards for measurement of transport shocks*
- *Communication via mobile devices (4G), USB, Bluetooth and NFC*
- *Stores GPS coordinates and transmits them by e-mail in case of alarm and status message*
- *Cloud-based web portal for convenient tracking of the transport route and online management*
- *Status report readable via Bluetooth and NFC with smartphone and free app*
- *Intuitive operation, extremely long and mains-independent operating time*
- *Easy to configure and evaluate with license-free software*
- *Tamper-proof with multi-level password protection*

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ShockDisplay smart link

EVIDENCE OF TRANSPORT QUALITY IN REAL TIME

The ***MONILOG® ShockDisplay smart link*** is an easy-to-use and versatile data logger. ⊕ It monitors sensitive goods on long transport routes and in critical environments, such as transformers, generators, switchgear or fragile optics, medical or automotive components. ⊕ The sensor technology of the data logger measures impact events, temperature, air humidity, air pressure and inclination – important for transport under protective gas or for temperature-sensitive and moisture-sensitive transport goods. ⊕ All data is sent at adjustable intervals via the mobile phone network as an e-mail to the desired recipient or directly to the ***MONILOG® ShockDisplay Web Portal*** ⊕ If a configured limit value for measurement data is exceeded, the current GPS position is recorded and an alarm e-mail is sent immediately. ⊕ Critical events during transportation can be tracked in real time and the user can react to possible risks to his sensitive freight. ⊕ The status report can be conveniently read out with a smartphone via Bluetooth or NFC. ⊕ The free app sends the read-out status report by email as a PDF file. ⊕ The measurement data is read out via the USB port and the license-free ***MONILOG® Analyzer*** software, allowing the data to be evaluated ⊕ Recorded position data sets can be imported, visualized and evaluated in Google Earth© or other programs, for example. ⊕ Commercially available alkaline batteries ensure a mains-independent power supply. ⊕ Minimal energy consumption and a long, maintenance-free operating time make the ***MONILOG® ShockDisplay smart link*** a self-sufficient measuring device that works extremely reliably, even under adverse environmental conditions. ⊕ A robust housing with IP67 certification protects the device from dust and water ingress. ⊕ The device can be used to determine the causes of transportation damage over very long periods of time. The ***MONILOG® ShockDisplay smart link*** complies with all standards and guidelines for shock measurement and transport monitoring.

MONILOG® ShockDisplay smart link

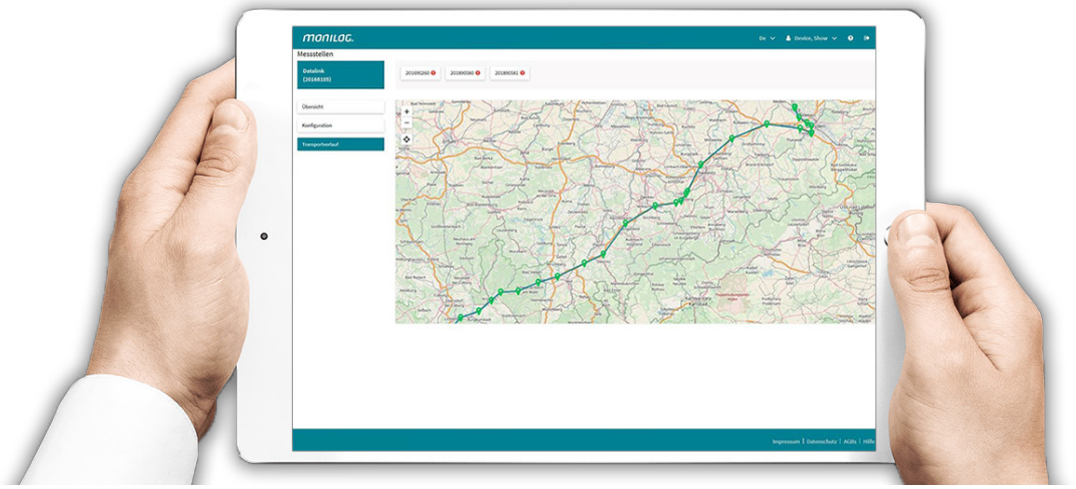
VIEW 360°

www.monilog.com/products

MONILOG® WEBPORTAL

The convenient solution for complex monitoring and tracking requirements.

⊕ Efficient Logger management ⊕ Geo-tracking ⊕ Real-time events ⊕ Worldwide access



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RISK LOGGER

Technical data of MONILOG® ShockDisplay smart link

Housing:	Aluminium, hard-anodized • degree of protection IP67 weight: 1.07 kg including alkaline batteries • 42 g each magnetic base size: 198 x 100 x 44 mm (D x W x H) •32 x 7 mm² (small magnetic base) surface mounting (3-point screwed connection recommended), magnetic foot mountings optional				
Sensors and data measurement:	Acceleration and shock:	configurable digital signal filtering • when the registration threshold is exceeded, shock curves are recorded • the 500 highest shock curves are stored			
			14 g (standard)	30 g (optional)	60 g (optional)
		Measuring range:	14g (3 axes)	30g (3 axes)	60g (3 axes)
		Tolerance absolute:	± 0,32g	± 0,6g	± 1,2g
		Sampling rate:	3,2 kHz		
		Curve duration:	640ms		
		Recording threshold:	0,3g (start of evaluation)		
		Lowpass filter cut-off frequency:	1,5Hz		
		Adjustable highpass filter cut-off frequency:	13 / 26 / 40 / 64 / 160 / 400 / 800 / 1600 Hz		
	Inclination:	Inclination calculation from static acceleration • when the registration threshold is exceeded, up to 640 inclination curves (12 Hz, 8 s, tolerance ±3° • at additionally continuous inclination recording adjustable in intervals between 1 minute and 24 hours • 200.000 data records			
	Temperature:	-40°C to +85°C • tolerance ±0,5 K • 200.000 data records			
	Relative humidity:	0% - 100% RH • tolerance ±2% RH (at 20 ... 80% RH) • 200.000 data records			
	Light:	0 lx - 65.000 lx • tolerance ±15 % • 200.000 data records			
	Air Pressure:	260 to 1.260 mbar • tolerance ±2 mbar (optional: 10 - 2.000 mbar, tolerance ±4 mbar) • 200.000 data records			
Operation and storage conditions:	-20°C to +60°C with alkaline batteries -40°C to +85°C with lithium batteries				
Data memory, time:	data receipt for a minimum of 10 years 32 MB flash parameter and data storage data/time as world time UTC, supported by the internal battery				
Power supply:	Internal:	2 batteries type D or R20 replaceable Alkaline batteries (2 x 1,5 V, 16.000 mAh) • lithium batteries (2 x 3,6 V, 17.000 mAh) • Operating time up to 3 years, typically 1 year (for alkaline batteries, all options active with relevant settings)			
Interfaces:	USB	USB 2.0 Client (Mini-USB-AB)			
	NFC	NFC Type 2 tag, compliant with ISO/IEC 14443 Part 2 and 3			
	Bluetooth	Low Energy, 2.4 GHz, Tx transmission power up to +8 dBm status report with smartphone and free „MONILOG Connect“ App” AES-128/256 encryption			
	mobile devices	LTE Cat 1, compatible worldwide with LTE, UMTS/HSPA(+) and GSM/GPRS/EDGE Sending of the measurement data worldwide via e-mail or visualization “MONILOG web portal” Embedded SIM enabled for worldwide use, can alternatively be used for 1.8 V or 3 V micro SIM card			
	external pressure sensor	Connection for analog pressure sensor (absolute or relative pressure, measuring range scalable) Output 5 V, maximum 10 mA			
	RS232 / Power	IP67 plug, five-pin (for external power supply and optional application)			
GPS position sensing:	32 satellite channels (GPS, SBAS, BeiDou, QZSS) • SMA socket for connection of an external active antenna 50 Ω 3 to 30 mA, 3 V (rod or cable antenna) • 25000 data records, tolerance 100m				
Operating and indication elements:	Illuminated LCD display for displaying all relevant measured values and status data • Multilingual and password-protected menu navigation • 4 function keys for easy operation even without a PC				
Conformity:	Device certification according to CE, UKCA, RoHS, WEEE, FCC, ISED • shock evaluation according to DIN EN 15433-6 • frequency analysis according to DIN EN 13011 • Use according to IEEE C 57.150-2012				
Evaluation / device configuration:	On the device display or other evaluation options via the software included in the scope of delivery for WIN 7 / 8 / 10 / 11				
Calibration:	Factory calibration valid for 2 years, unless otherwise agreed				
Programmable parameters:	Shock registration thresholds x, y, z • minimum shock duration, shock strength • limit for inclination, temperature, humidity, pressure • alarm indication on the display • intervals for continuous measurement of GPS, inclination, temperature, humidity and pressure • password for reading, configuring, On/Off switching • Start/Stop time for the data recording • Interval for data transmission				

RISK LOGGER
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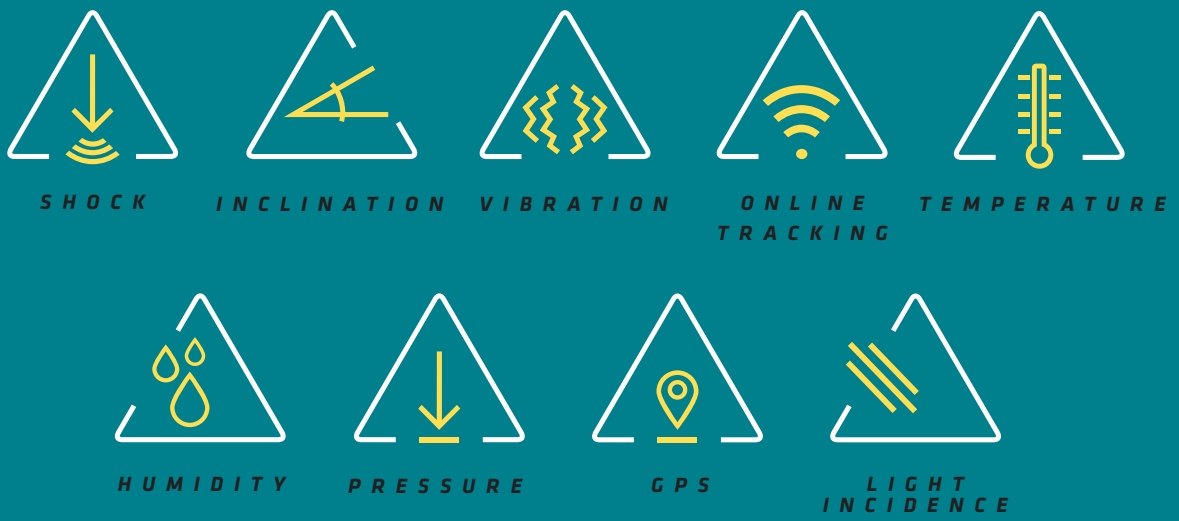
MONILOG®
RISK LOGGER

WHAT ARE YOU LOGGING FOR?

MONILOG® Risk Loggers measure, signal and document the external influences that threaten the value and functional capability of your damageable items.
We offer the ideal product design, software and sensor system for each and every customer requirement:



TRANSPORT RISK

Where are your freight items located? Which levels of stress are and have the items been exposed to?

STORAGE RISK

Are the ambient conditions correct for your stored items? Were they and will they remain stable?

OPERATIONAL RISK

Do mechanical factors put operation of your offshore plant at risk? When do you, as the operator, need to intervene?

Which device maps your particular risk profile? Our product finder provides the answer and sets the course for specific modifications or for new developments. Product finder online: www.monilog.com/productfinder

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