

Guard your assets - it pays!



Select exactly what you need

Safeguard your plant stoppers and other essential machines. Machine Guard MG-4 is a stand-alone continuous monitoring unit, ideal for automatic surveillance of unmanned machines.

MG-04 uses:

- True RMS vibration severity measurement on one or two channels.
- True SPM bearing condition evaluation on two additional channels.

More than 90% of all mechanical faults are announced by increasing vibration or shock pulse levels. Planned maintenance and condition triggered emergency shutdown prevent accidents and production stops.

A cost-efficient package of options

Breakdown costs are always too high. MG-4 is insurance with a payback guarantee. Choose the channel combination that gives maximum safety at lowest cost. Measuring ranges, two-step alarm levels, alarm delays, and relay combinations can be programmed. Condition evaluation is automatic. There are no operating costs: install and feel safe.

Back-lighted
LCD display

Transducer
line test

Ex proof
accessories

Measuring results,
4 x 16 characters

Status display,
2 alarm levels

Automatic
condition
evaluation



Polycarbonate
casing, IP65
Easy mounting

Easy
programming:
Measuring range
Alarm levels
Alarm delays

30 years
condition monitoring
experience

Signal input, TNC,
2 channels VIB,
2 channels SPM

Analog outputs 4-20 mA,
alt. RS-485 port for LAN network

Relay outputs
1 x 250 V, 4 x 125 V

Power supply 230 V AC,
115 V AC, 15-30 V AC/ DC

Dependable condition monitoring

Good asset management requires preventive maintenance based on condition information.

Machine Guard MG-4 uses the two most reliable methods for automatic machine fault detection. It provides

- Shock pulse for early warning in case of poor bearing lubrication, stressed bearings, or the onset of damage.
- maintenance alert in case of a significant increase in vibration severity.

Early condition alert is the best money saver - ample planning time for maintenance, no production stop, no damage. The analog outputs can send on-line condition information to your PLC. As an alternative the MG-4 can be equipped with a RS-485 port for sending complete data on LAN (Modbus network using RTU).

For better economy

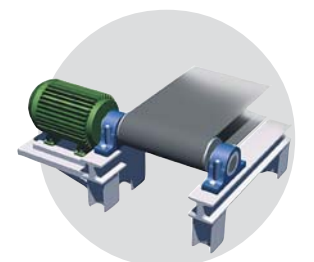
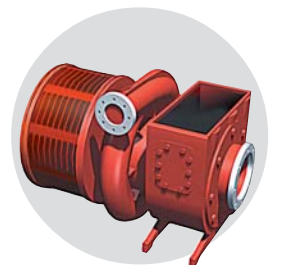
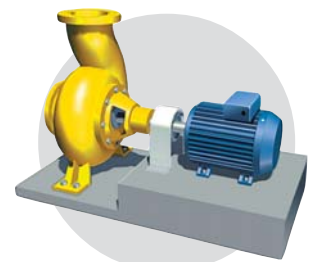
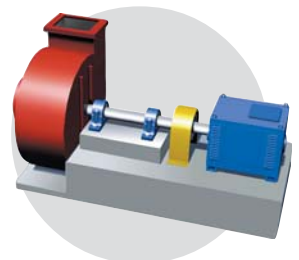
Breakdowns happen, but the big bang can be avoided. A shut down circuit, triggered by a sudden heavy increase of the vibration level, prevents

- danger to personnel and other hazards
- secondary damage to machines and surroundings
- unnecessary production stops and quality losses.

Good condition monitoring equipment has a very short payback time. Consider the downtime cost for your last machine failure, then make a sound investment.

Sound technique, fit for anything

MG-4 is easy to install on all types of rotating machinery. A wide range of transducers and installation accessories has proved reliable in many harsh industrial environments.



SPM Machine Guard MG-4.

Specs and options – pick your own monitoring kit!

Technical specifications

General

Channels:	max. 2 VIB + 2 SPM
Outputs:	4 - 20 mA analog signals, programmable ranges alt. RS-485 port for complete data via LAN network, Modbus RTU
Relays:	250 V (1) 125 V (max. 4)
Power supply:	230 V AC, 115 V AC, 15 – 30 V AC / V DC
Temperature range:	0° to 50° C
Casing:	polycarbonate/PVC, IP65
Display screen:	LCD 4 x 16 characters, back-lighted
Status display:	green, yellow, red LED
Dimensions:	200 x 144 x 77 mm
Weight:	1150 grams

Vibration channel (VIB)

Measuring range:	0.5 to 49.9 mm/s RMS 0.00 to 1.90 inch/s RMS
Resolution:	0.1 mm/s 0.01 inch/s
Frequency, lower limit:	3, 10, or 100 Hz
Frequency, upper limit:	1000 or 2000 Hz
Alarm limits:	2, programmable
Alarm delay:	0 to 600 seconds

Bearing channel (SPM)

SPM monitoring methods:	dBm/dBc or LR/HR with SPM evaluation
Measuring range:	0 to 99 dBsv
Resolution:	1 dBsv
Alarm limits:	2, programmable
Alarm delay:	0 to 600 seconds
System security:	transducer line test



Ex proof accessories available.



Sensitive instruments in their natural environment. Tough, but they are made to last.

Ordering numbers

Standard configurations

MG4-1	1 channel VIB
MG4-2	2 channels VIB
MG4-12	1 channel VIB, 2 channels SPM
MG4-22	2 channels VIB, 2 channels SPM

Transducers and measuring cables

TRV-18	Vibration transducer, 3-1000 Hz, M8
TRV-19	Vibration transducer, 3-1000 Hz, UNF 1/4"-28
TRV-20	Vibration transducer, 2-5000 Hz, M8
TRV-21	Vibration transducer, 2-5000 Hz, UNF 1/4"-28
TRX-18	Isolated installation foot for TRV-18, TRV-20
TRX-19	Isolated installation foot for TRV-19, TRV-21
40000	SPM transducer for cable length below 4 m
42000	SPM transducer for cable length 4–100 m
45011-L	Cable for transducers (L = length in meters)

Always within reach

Reliable equipment backed up by world wide service: SPM has experience from most branches of industry and is represented in more than 50 countries.



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