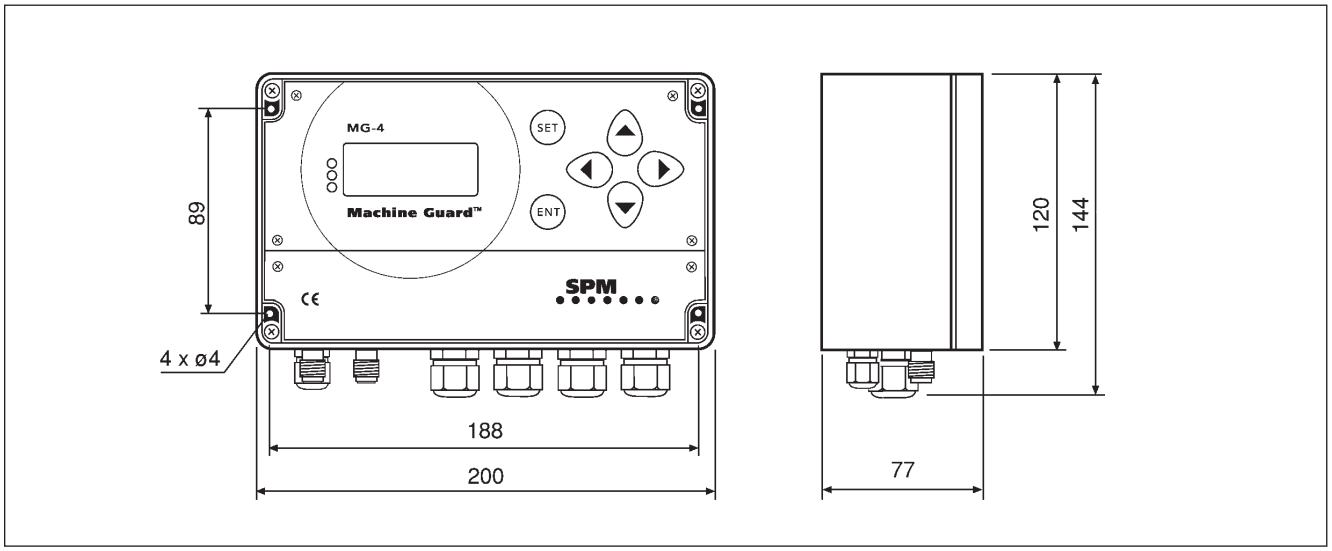
Machine Guard MG4-12A



Machine Guard MG4-12A is a stand-alone measuring unit for continuous monitoring of machine vibration (one channel) and bearing condition (two channels). It measures vibration severity (true RMS value of vibration velocity) according to ISO 10816 and shock pulses according to the true SPM method.

Machine Guard MG4-12A provides:

- Two programmable alarm levels per channel and status display (green - yellow - red light)
- Display of measured value with continuous updates
- Analog output current 4 - 20 mA with programmable range or complete data on LAN (Modbus network using RTU)
- Relays 250 V (1) and 125 V (4) with programmable alarm levels.

MG4 has a casing for wall mounting, IP65. It can be supplied with mains power or be connected to a PLC. Measuring time, alarm levels, alarm delay and the channel/relay combinations are programmed, using the push buttons on the front panel. It has a cable inlet of type M12 for vibration transducer connected with twisted pair cable but can be equipped with TNC connector (option) for coaxial cable.

The following options are selected on ordering the unit:

Power supply:

- 230 Vac, 115 Vac or 15 to 30 Vac/Vdc

Vibration channel:

- Frequency range 3-1000, 3-2000, 10-1000, 10-2000 or 100-1000 Hz

Bearing channel:

- dBm/dBc or LR/HR technique

As an option the MG4 can be equipped with a RS-485 port for sending data via a LAN network. MG4 units equipped for network have no analog outputs.

Technical specifications

Vibration channels:	1
SPM channels:	2, multiplexing
Analog outputs (3):	4-20 mA, selective range, no galvanic separation
Main relay (1):	250 Vac, 5 A, 1250 VA
Secondary relays (4):	125 Vac, 1 A, 60 VA, 150 Vdc, 1 A, 30 W
Power supply:	230 Vac, 115 Vac or 15-30 Vac/Vdc
Power consumption:	max. 6 VA
Temperature range:	0° to 50° C (32° to 122° F)
Casing:	Polycarbonate/PVC, IP65
TNC connectors:	Silver plated brass, 10–15 µ
Display screen:	LCD, 4 x16 characters, backlighted
Status display:	Green, yellow, red LED
Dimensions:	200 x 144 x 77 mm
Weight:	1140 grams

Vibration channel (VIB)

Measuring range:	0.5 to 49.9 mm/s RMS (0 to 1.9 inch/s RMS)
Resolution:	0.1 mm/s (0.01 inch/s)
Frequency range:	3-1000, 3-2000, 10-1000, 10-2000 or 100-1000 Hz
Measuring time:	Programmable 1 to 15 s
Alarm limits:	2, programmable
Alarm delay:	0 to 600 seconds, steps of 2 s
Fault indication:	Transducer line test for short and open circuit
Transducer type:	IEPE (ICP®) with bias 2 to 18 V DC and sensitivity 0.9 to 12.0 mV/m/s^2, type SLD or TRV-18/19/20/21 with isolated installation foot TRX-18/19

Bearing channel (SPM)

SPM method:	dBm/dBc or LR/HR, evaluated
Measuring range:	0 to 99 dBsv
Resolution:	1 dBsv
Alarm limits:	2, programmable
Alarm delay:	0 to 600 seconds, steps of 2 s
Fault indication:	Transducer line test of measuring circuit quality
Transducer type:	SPM 40000 or 42000

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