

Seismic vibration sensor

Compact Switch SW5484E



Product description

Reliable machine monitoring (e.g. housing vibrations caused by imbalances) is ensured by a highly sensitive, low-noise and robust sensor technology. The M8, M10, 1/4", 3/8" or 1/2" screw connections of the sensor allow machine-specific and reliable mounting, which is also possible - in contrast to the mechanical vibration switch - in hard-to-reach places.

Continuous machine monitoring is performed via the integrated 4 ... 20 mA current interface and/or via the integrated solid-state relays, whose switching thresholds (pre/main alarm) can be set via the PC-SW.

The raw signal output ('Dynamic') is available for 'Real-Time' evaluations or monitoring of the vibration signals.

Applications

- Fans
- Cooling towers
- Drives
- Large pumps

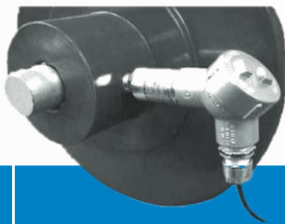
Advantages

- Compact, configurable vibration switch with integrated transmitter
- Allows decentralized machine monitoring

Features

- Highly accurate velocity transmitter (seismic, all axes of motion)
- Based on proven ST5484E technology
- 4 ... 20 mA output signal (IPT, loop powered)
- Raw signal output (dynamic)
- Configurable switching thresholds and time delays (pre/main alarm)
- Adjustable alarm storage
- 2 solid state relays (isolated)
- Approvals for hazardous areas CSA, ATEX, IECEx
- 8-pin connector (submersible)
- Corrosion resistant housing (316SS)
- Leakage free
- Replacement for mechanical vibration switches
- High EMC resistance (shielded cables)

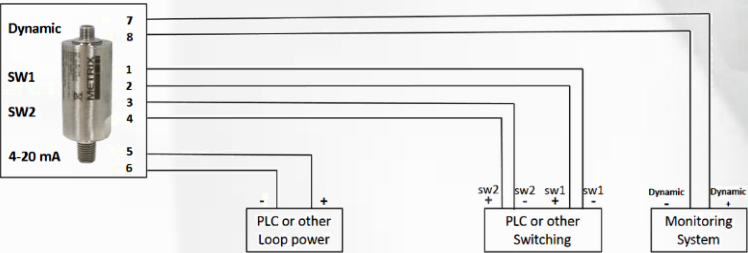
Technical data



Characteristic	Technical values
Vibration transducer	Piezo-electric, with signal integrator
Frequency range (-3dB)	2 Hz ... 1,5 kHz (individual band filters possible)
Measuring range	max. 127 mm/s (5.0 in/s) (individual measuring ranges possible)
Housing material	Stainless steel 316L
Operating temperature range	-25°C ... +100°C
Humidity rel. (max.)	100% (condensation)
Protection class	IP66 (IP68 with MIL connector)
Signal output	Connector (8-PIN MIL-style C-5015) or cable (length 4m / 10m)
Raw signal output	100mV/g (10.2mV/m/s ²) (bandpass filter taken into account)
Relay output	max. 100 mA (isolated)
Accuracy	±3,5% (in the filter area)
Weight and dimensions	ca. 0,36kg / ca. ø38mm, l = 89mm

Individual configuration of the 2 solid state relays:

- Trigger Level
- Trigger Delay
- Relais (n.c. vs n.o.)
- Hold mode (latching)



SW5484E SWITCH CONFIGURATION

Product Information

Model: SW5484E-01 (1000 Hz)

Serial Number: 00000001

Version: 1.00.08

Manufacturer: Bahrman GmbH

Location: Gärtringen, Germany

IP Address: 192.168.1.100

Port: 8080

Communication: RS-485 (Modbus RTU)

Power Supply: 24V DC

Power Consumption: 1.5W

Operating Temperature: -25°C ... +100°C

Storage Temperature: -40°C ... +125°C

Humidity: 100% (condensation)

Shock: 10g

Vibration: 100mm/s

Switching Capacity: 100mA

Switching Voltage: 24V DC

Switching Delay: 1ms

Switching Mode: Latching

Switching Relays: 2

Simulation Mode: On

Free software

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