



The device combines high-precision MEMS sensor technology with on-board signal processing technologies and remote digital transmission of measured values. This increases the immunity to electromagnetic disturbances and simplifies the transmission of measurements over long distances.

It can be mounted directly on the monitored structures being protected in an IP65 housing and operating in an extended range of temperatures (-40°C ... +50°C).

The device is multifunctional and measures simultaneously: 3-way acceleration, 2-way tilt and temperature.

Both static and dynamic measurements can be made.

The connection to the monitoring center is done with a single cable that performs data transfers, synchronization and powering of the device.

It can be used in monitoring systems that include from 1 to 32 devices that work simultaneously.

ADVANTAGES

- Multifunctional
- Static and dynamic measurement
- Robust housing, IP67 protection
- Immunity to electromagnetic disturbances
- PoE Ethernet interface for communication and power supply

APPLICATIONS

- Seismic instrumentation
- Long-term monitoring of bridges
- Dams monitoring
- Buildings, stadiums, monuments, industrial structures monitoring

TECHNICAL SPECIFICATIONS

MON 3AX1

Accelerometer	3 axes, X, Y and Z
Low noise	25 μ Grms/ $\sqrt{\text{Hz}}$ (average)
Accelerometer measurement range	$\pm 2\text{G} \dots \pm 8\text{G}$
Accelerometer measurement resolution	3.9 $\mu\text{G}/\text{LSB}$
Frequency band	400Hz (selectable)
Inclinometer	2 axes, X and Y
Inclinometer measurement range	$\pm 45^\circ$
Inclinometer measurement resolution	0.25 mrad
Work frequency (sampling)	up to 4000 Hz
Termometer	included
Temperature measurement range	-40 °C ... 65 °C
Temperature measurement resolution	0.1 °C
Working temperature range	-40 °C ... +55°C
Protection	IP67
Low power consumption / PoE power supply	12Vcc / PoE
Communication	Ethernet interface
Connections	M12 connector, 8 pins
Dimensions	145 x 100 x 55 mm

MON 3AX2

Accelerometer	3 axes, X, Y and Z
Low noise	0.2 μ Grms/ $\sqrt{\text{Hz}}$ (average)
Accelerometer measurement range	$\pm 12\text{G}$
Accelerometer measurement resolution	0.06 $\mu\text{G}/\text{LSB}$
Frequency band	100Hz (selectable)
Inclinometer	2 axes, X and Y
Inclinometer measurement range	$\pm 45^\circ$
Inclinometer measurement resolution	0.002 $\mu\text{rad}/\text{LSB}$
Work frequency (sampling)	up to 1000 Hz
Working temperature range	-40 °C ... +55°C
Protection	IP67
Low power consumption / PoE power supply	12Vcc / PoE
Communication	Ethernet interface
Connections	M12 connector, 8 pins
Dimensions	145 x 100 x 55 mm

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