

MS2003+ Velocity Sensor



The MS2003+ velocity sensor is best suited for vibration monitoring according to DIN 4150. The excellent dynamic range and the broad frequency range fully cover the needs of the engineer in charge with structural dynamics.

Sensor

MS2003+ to be linked to motion recorders such as

- MR3003C (internal or external)
- MR3003TR (internal or external)
- MR3000C (internal or external)
- MR3000TR (internal or external)

MS2003+ Velocity sensor (conforms to DIN 45669)

The MS2003+ velocity sensor is best suited for vibration monitoring according to DIN 4150. The excellent dynamic range and the broad frequency range fully cover the needs of the engineer in charge with structural dynamics.

The rugged construction of the MS2003+ is designed to withstand the rough outdoor use. Each axis of the MS2003+ is calibrated individually. The sensor is shipped with a calibration certificate.

Technical Specifications

Type	Velocity sensor with linearized frequency response and built-in amplification A3HV 315/1 (triaxial) (according to DIN 45669) A1H 315/1 and A1V 315/1 (single axis) Deep Red Option (DRO) corresponds to short period geophone.
Principle	Active, electronically equalized geophone
Measuring range full scale	$\pm 11.4 \text{ cm/s}$ ($f > 9 \text{ Hz}$), down to 1.2 cm/s ($f = 1 \text{ Hz}$) DRO : $\pm 2.28 \text{ mm/s}$
Sensitivity	0.39 V/cm/s (calibrated at 16 Hz) DRO : 19.5 V/cm/s
Case-to-coil motion	4 mm p-p
Frequency range	$1 - 350 \text{ Hz}$ (linear $\pm 10\%$ frequency response), see chart
Dynamic range	$> 130 \text{ dB}$ DRO : 110 dB
Linearity / Phase	According to DIN 45669 (class 1)
Cross axis sensitivity	According to DIN 45669 ($< 5\%$)
Supply voltage	$\pm 5.0 \text{ V}$
Power consumption	$< 10 \text{ mA}$ (per axis) DRO : $< 20 \text{ mA}$
Output voltage	$0 \text{ V} \pm 4.5 \text{ V}$
Temperature range	-30°C to $+60^\circ \text{C}$
Housing	Aluminium
Protection	IP 65 (splash-proof)
Self-Test	Integrated, active self-test (Mechanical and electronic tests)

MS2003+ triaxial

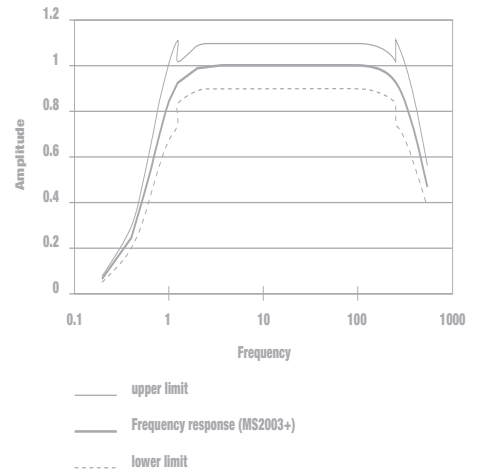
Dimensions	$122 \times 120 \times 80 \text{ mm}$
Weight	1.55 kg
Connector	Metallic self-latching push - pull connector with positioning key
Accessories	Mounting platform with levelling screws - weight: 1.9 kg
Option	Connector for external z-axis

MS2003+ single axis (horizontal or vertical)

Dimensions	$80 \times 75 \times 57 \text{ mm}$
Weight	0.45 kg
Connection	0.5 m interconnection cable with metallic, self-latching push-pull connector with positioning key
Accessories	Interconnection box (input for 3 single axis sensors, output like triaxial sensor) and extension lead

Ordering Information

Example: MS2003-H-TRIA	
Horizontal mounting	H
Vertical mounting	V
Vertical borehole with MS2003+ integrated, Y = TRIA mandatory, stainless steel IP68 enclosure	B
Triaxial sensor	TRIA
Uniaxial sensor, longitudinal measurement	UNIX
Uniaxial sensor, vertical measurement	UNIZ
Uniaxial sensor IP 68, vertical measurement, with 30 m cables pigtail (Only if B = V)	FORZ



MS2003+ with mounting and levelling platform

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