



## MS2007+ Force Balance Servo Accelerometer

The MS2007+ series triaxial force-balance accelerometer uses the latest technology of force-balance feedback to compensate the drawbacks in the mechanical characteristics of traditional sensors, such as non-linear distortion and limited sensitivity due to elastic behavior of the mechanical components.

The MS2007+ features high sensitivity, broad linear range and high resolution. The design integrates mechanical parts and electronics, resulting in consistent technical parameters, a rugged design, reliable performance, light weight and small volume.

The MS2007+ comprises a calibration circuit to facilitate self-testing and automatic calibration in the field.

The MS2007+ is available as single axis and as a triaxial sensor.

## Technical Specification MS2007+

### Performance

<b>Acceleration Sensing Element</b>		<b>Optional</b>
Principle	The sensing element is an analog mechanical force-balance accelerometer	
Hysteresis	negligable	
Noise (RMS) 1-100 Hz	typ. 50 ng/√Hz	
Natural frequency	80 Hz	100, 150 Hz
Damping	0,7 (critical)	

<b>MS2007+ triaxial sensor</b>		<b>Optional</b>
Measuring range	2 g standard	user selectable 1 g, 0.5 g, 0.25 g
Orientation	horizontal (floor) mounting	
Non-Linearity	<0.1% of full scale	
Frequency response	DC to 80 Hz (-3 dB)	DC to 100, 150 Hz
Dynamic range (RMS)	> 135 dB (DC to 80 Hz)	
Supply voltage	+ 12 V (+/- 30%)	
Current consumption	quiescent (2 g FS)	DC/DC converter 4mA more to match the recorder
Output voltage	+/- 2.5 V	
Self-test	test-pulse, damping Control	
Cross axis rejection	> 60 dB	

### Physical Characteristics

Housing	Metal, 120 x 120 x 75 mm (W x L x H)
Connector	MIL-type connector
Weight	2 kg
Protection degree	IP 65 (splash-proof)

### Environmental

Operating temperature	-25 (matched to other equipment) to 70° C
Humidity	up to 100% RH non condensing, 90% RH continuous
Vibrations	up to 5 g (operating)