



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

Acceleration Sensing Element

Principle	The sensing element is an analog mechanical force-balance accelerometer
Hysteresis	negligable
Noise (RMS) 1-80 Hz	typ. 50 ng/ $\sqrt{\text{Hz}}$
Natural frequency	80 Hz
Damping	0,7 (critical)

MS2007+ triaxial sensor

Measuring range	2 g standard
Orientation	horizontal (floor) mounting
Non-Linearity	< 1% of full scale
Frequency response	DC to 80 Hz (-3 dB)
Dynamic range (RMS)	> 135 dB (0.1 to 80 Hz)
Supply voltage	± 12 V (+/- 30%)
Current consumption	quiescent: < 10 mA
Output voltage	+/- 2.5 V differential
Self-test	test-pulse, damping Control
Cross axis rejection	> 40 dB

Physical Characteristics

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

Environmental

Operating temperature	-25° to 65° C
Humidity	up to 100% RH non condensing, 90% RH continuous
Shock	30g max.