



MS2010+
High dynamic digital accelerometer
Built-in MR3003 recorders

The MS2010+ is a digital acceleration sensor with high dynamic and extended measuring range, dedicated to structural monitoring and high-sensitive measurements applications. This ultra low noise sensor can be built-in MR3003C and MR3003DMS motion recorders.

Applications

- **High-sensitive measurements**
Modal analysis - Sensitive laboratories - SHM Structural health monitoring
- **Earthquake engineering**
Building monitoring - Monitoring of structures (dams, bridges..)
- **Ambient vibration**
Geophysical investigations - Soil analysis

MS2010+ Digital accelerometer

The MS2010+ is a triaxial high dynamic accelerometer with a digitization of the acquired signals directly inside the sensor. The MS2010+ is a dedicated sensor for acquiring ultra low noise levels of accelerations in harsh environmental conditions. In addition to that, an outstanding linearity of the sensor ensure reliable measurements over the whole measuring range.

Major features

- Ultra low noise < 0.2 μg RMS/ $\sqrt{\text{Hz}}$
(refer to PSD plot)
- High dynamic SNR > 139dB
- Extended measuring range $\pm 14\text{g}$
- Low power
- Built-in MR3003C or MR3003DMS

Technical specifications

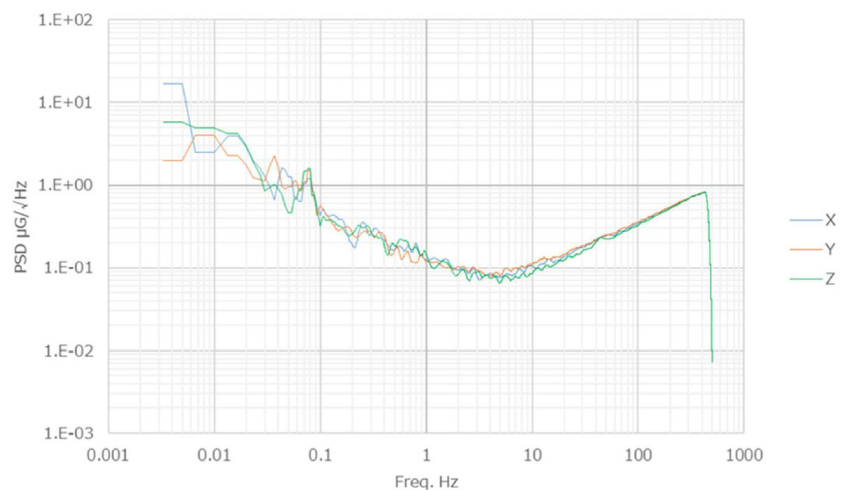
| | |
|------------------------------|---|
| Principle | High dynamic accelerometer with highly accurate and stable three axis detection elements made from quartz crystal micro machined technology with built-in temperature compensation. |
| Sampling rate | 250, 500, 1000 sps |
| Hysteresis | None |
| Number of channels | 3 orthogonal (x, y, z) |
| Noise | Typ. < 0.2 μg RMS/ $\sqrt{\text{Hz}}$ (refer to PSD plot) |
| Dynamic range | Typ. > 139dB @200sps |
| Operating temperature | -30°C to +85°C |
| Non-Linearity | 0.03% between $\pm 1\text{g}$ |
| Frequency response | DC to 460Hz |
| Orientation | Horizontal, vertical or ceiling, self-adapting |

MS2010+ triaxial accelerometer

| | |
|--------------------------|-------------------|
| Measuring range | $\pm 14\text{g}$ |
| Power consumption | Typ. 44mW @200sps |
| Supply voltage | 3.3V |
| Self-testing | Auto diagnostic |

Physical characteristics

| | |
|-----------------|--|
| Optional | Mounted inside: MR3003C or MR3003DMS dataloggers |
| PSD | Refer to below Power Spectrum Density plot |



Ordering information

Contact Please contact Syscom or your local sales representatives for ordering this accelerometer.

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