

# AMD MEMS SEISMIC ACCELEROMETER

**AMD MEMS strong motion seismic accelerometer suitable for any environmental condition and designed for vibration measurement of bridges and viaducts.**

Solgeo has developed this triaxial mems accelerometer with performances suitable for monitoring structures such as bridges, viaducts, tunnels in road and rail environment, both for direct measurement of accelerations and displacements but also suitable for modal analysis of structures.

It is characterised by high response accuracy, good dynamics especially at low frequencies (those of interest), high robustness to atmospheric agents and shocks, all at a very competitive price for widespread installation. It connects directly to the Dymas24 series acquirers that manage the internal test. It is also be used in single axle or biaxial configuration.

## APPLICATIONS

- Vibration measurements on bridges and viaducts
- Suitable for all environmental conditions



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## TECHNICAL CHARACTERISTICS

Number of channels	3, orthogonally oriented
Full scale acceleration	$\pm 2 G$ , $\pm 4 G$ ; $\pm 8 G$ (optional)
Output voltage	$\pm 4$ Volt differential
Sensitivity	2000 mV/g - 1000 mV/g (tipo $\pm 4g$ ); 500 mV/g ( $\pm 8g$ type)
Frequency response	0 - 500 Hz (nominal, -3dB); 0 - 1500 Hz (optional)
Operating voltage	Da +5 a +18 Vdc 8 mA
Output impedance	90 Ohm
Dynamic range	> 90 dB
Noise density	< 22,5 $\mu g/\sqrt{Hz}$
Non Linearity	< 0,1% ( $\pm 2g$ model)
Cross axis sensitivity	1%
Offset drift	0,1mg/°C
Full scale drift	100 ppm/C°
Sensor test	External test input
Phase error	< 10° (from 0 to 50Hz)

## ENVIRONMENTAL CHARACTERISTICS

Temperature operating	-20 °C to +80 °C
Temperature storage	-40 °C to +90 °C
Shock Survival	2000 G, 0,1 mSec
Ambient Pressure	0 to 5 Bar
Humidity	100%

## PHYSICAL CHARACTERISTICS

Weight	600 g
Dimension (LxWxH)	50 x 50 x 50 mm (without connectors)
Case material	Anodized Aluminum
Electrical Interface	10 terminal pins CONNECTOR / cable gland 3m
Protection rating	IP65 with connector or IP68 with cable gland



Contact now your  
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