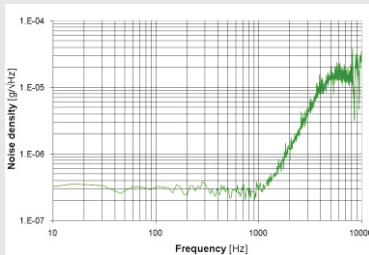


Monitoring the earth

- 3 axis accelerometers
- Low power consumption
- Surface/wall mount installation
- MEMS -ASIC technology
- Force Balance Sensor Technology
- Wide Input Voltage Range
- Wide Bandwidth DC-1500 Hz
- Range +/-2, +/-3, +/-5g linear
- Wide Dynamic Range 114dB
- Noise Level  $0.6\mu\text{g}_{\text{rms}}/\text{sqrt}(\text{Hz})$
- Operation Range: -20 +70°C



The SM1500 and SM550 are MEMS type, three-component acceleration sensors. They have wide frequency response. SM1500 model's response is DC to 550Hz and SM550 model's response is DC to 750Hz. Default Sensitivity is 2.4V/g for the SM1500 and 1.2V/g for the SM550 and can be adapted according to user's requirements.

The SM1500 accelerometer is based on a variable capacitor transducer and a feedback circuit that operates in a closed-loop configuration. The feedback force is controlled by an application-specific integrated circuit (ASIC) which provides high reliability and low output noise.

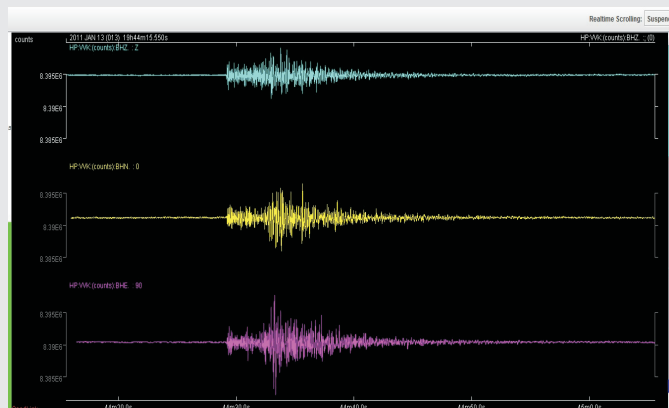


The SM1500 and SM550 sensors operate getting powered from a single +9 to +18Vdc with and the typical power consumption is 28mA@12Vdc Other power capabilities are available under request.

The acceleration output of SM1500 and SM550 sensors can be analog bipolar or differential, 4-20mA current loop output is also available for both sensors.

## APPLICATIONS:

- Structural Monitoring Applications
- Earthquake monitoring
- Geophysics
- Homeland and Border Security
- Vibrations Monitoring
- Tilt and Inclination monitoring
- Shock measurements





## Instrument Specifications

<b>GENERAL</b>	<b>SM1500S</b>	<b>SM550</b>
Number of channels:	3	3
Orientation	Vertical, North-South, East-West	Vertical, North-South, East-West
Power	MEMS - Variable capacitor transducer and feedback circuit with close-loop configuration.	MEMS - Variable capacitor transducer and feedback circuit with close-loop configuration.
Bias Level	0V +/-100mV	0V +/-100mV
<b>FEATURES</b>		
Range	+/- 3g +/- 5g	+/- 2g +/- 6g +/- 12g
Sensitivity	2.7 V/g	0.8 V/g
Noise	0.6µg rms/sqrt(Hz)	20µg rms/sqrt(Hz)
Bandwidth	DC – 550Hz	DC – 750Hz
Dynamic Range	>114dB	>85dB
<b>PHYSICAL</b>		
Size	160 X 100 mm	160 X 100 mm
Weight	0.8kg	0.8kg
Mounting	Floor or wall mounting	Floor or wall mounting
<b>ENVIRONMENT</b>		
Temperature range	-20 to +70 °C	-20 to +70 °C
Humidity	100% IP67	100% IP67



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