

SHORT-PERIOD SEISMOMETERS

Short-period seismometers measure seismic signals in the bandwidth of 1 Hz and higher. These are reliable and easy-to-install instruments based on the molecular-electronic technology. R-sensors' short-period seismometers have a frequency range of 1 to 50 Hz. More technical parameters are presented in datasheets or on Geoarmatech' website www.Geoarmatech.com.

R-sensors' short-period seismometers are designed for field geophysical research, seismic exploration, engineering geophysics and vibrational control. They are a perfect combination of high technical parameters, a compact size and a light weight.

R-sensors' short-period seismometers include the following models:

CME-3211 is a short-period seismometer. It is designed for portable applications as well as for permanent installations in locations with the background noise being higher than the Low Noise Model. It is also well-suited for scientific research and educational centers. The seismometer is very rugged, does not require any maintenance or mass locking or centering. Its dynamic range is **108 dB** at 1 Hz, maximum installation tilt is $\pm 15^\circ$.

3-component and 1-component versions (vertical, horizontal) are available.

CME-3311 is a compact-size short-period seismometer. It is featured with a low self-noise, high gain, low power consumption. It is reliable and has no moving parts to be broken or wear out. Like other molecular-electronic seismometers, this model does not require mass centering for installation or mass locking for transportation. The seismometer is well-suited for portable and permanent installations in locations with the background noise close to the Low Noise Model. It can be used in seismology, seismic exploration, engineering geophysics and vibrational monitoring. Its dynamic range is **118 dB** at 1 Hz, maximum installation tilt is $\pm 15^\circ$.

3-component and 1-component versions (vertical, horizontal) are available.

SHORT-PERIOD SEISMOMETER CME-3211



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Configuration	Vertical or horizontal for 1-comp version Vertical, North, East for 3-comp version
Sensitivity	2000 V / (m/sec)
Maximum input signal	5 mm/sec
Frequency range	1 – 50 Hz
Maximum output swing	± 10 ohm
Output impedance	1000 ohm
Dynamic range at 1 Hz	108 dB
Integral noise in the band of 1-50 Hz	15.8 nm/sec (31.5 μ V)
Cross-axis sensitivity	-60 dB for 3-comp. version
Non-linearity at 10 Hz	1%
Temperature range	-12°C - +55°C – standard -40°C - +55°C – extended
Maximum installation tilt	$\pm 15^\circ$
Supply voltage* (all possible options)	12 V nominal 10.5 – 16 V permissible
Power consumption	25 mA for 3-comp. version 12 mA for 1-comp. version
Cold-start time	10 – 30 min.
Mass locking, mass centering	non required
Connector type, cable	10-pin RS-10 Russian type connector (for 1-component version); 1.5 m open-ended cable (for 3-comp)
Case material	Waterproof, aluminum
Weight	3 kg (3-component) 1.6 kg (1-component)
Dimensions	150 x 150 x 110 mm (3-comp.) 120 x 120 x 110 mm (1-comp.)
Case accessories	3 feet

Некоторые из представленных параметров относятся к конкретным исполнениям сейсмометра. Полные технические данные прибора представлены в «Технических данных сейсмометра CME-3211». Спецификации могут быть изменены производителем без дополнительного уведомления.