



# Broadband Seismometer CME-6211

## Features:

High Performance Broadband Seismometer

Wide dynamic range

Easy Installation

No Mass lock or Mass centering needed

Built-in calibration coil

0.008 (120 sec) – 50 Hz bandwidth

2000 V/(m/s) sensitivity

20V peak-to-peak differential output

Self-noise below NLNM in 10 sec – 5 Hz

Low power consumption

Installation tilts up to 15 degrees



## The CME-6211 specifications

The CME-6211 seismometers combine the low-noise molecular-electronic sensing element (transducer) and the electrodynamic feedback which results in a very flat response over a wide frequency range, high dynamic range and greatly improved time and temperature stability of the instrument parameters.

Like other molecular-electronic instruments, the 6211 seismometer is very rugged and does not require any special means or procedures for transportation and installation. The only procedure to start the operation is to place the seismometer on the rigid horizontal surface, turn the power on and wait for several minutes. The seismometer can be used in various areas including permanent stations and field experiments.

The sensing element of a MET transducer consists of two hermetically sealed filled with electrolyte housings connected by a channel with electrodes across. The electrodes are separated by perforated dielectric spacers. The electrolyte plays the role of the inertial mass, while hydrodynamic impedance of the sensing element acts as the damping mechanism providing a feedback for stabilization of the transfer function.

Find more on Molecular-Electronic Technology (MET) at [www.r-sensors.ru](http://www.r-sensors.ru)

<b>Configuration</b>	<b>Triaxial, orthogonal - Vertical, North, East</b>
<b>Sensitivity</b>	<b>2000 V/(m/s) or customized</b>
<b>Maximum input signal</b>	<b>10 mm/sec</b>
<b>Bandwidth*</b>	
<b>standard 1</b>	<b>0.008 (120 sec) - 50 Hz</b>
<b>standard 2</b>	<b>0.0167 (60 sec) - 50 Hz</b>
<b>Maximum output swing</b>	<b>±20 V, differential mode</b>
<b>Output impedance</b>	<b>1000 Ohm</b>
<b>Dynamic range at 1 Hz</b>	<b>140 dB</b>
<b>Integral noise in the band</b>	
<b>0,1 – 20 Hz</b>	<b>2.8 nm/sec (5.6 µV)</b>
<b>0,008 (120 sec) – 20 Hz</b>	<b>9.8 nm/sec (19.6 µV)</b>
<b>Cross-axis sensitivity</b>	<b>-50 dB</b>
<b>Non-linearity at 1 Hz</b>	<b>0.2%</b>
<b>Temperature range*</b>	<b>Standard range -12°C - +55°C (10.4°F - 131°F) Low-temperature range -40°C - +55°C (-40°F - 131°F)</b>
<b>Supply voltage*</b> <b>(all possible options)</b>	<b>+9 - +36 V single supply, isolated / +12 V single supply / ±12 V dual supply / ± 5 V dual supply / +5 V single supply</b>
<b>Power consumption</b>	<b>700 mW (58 mA @ +12 V dc) from isolated source / 400 mW from non-isolated source at +12 V dc</b>
<b>Settling time till correct readings after power on</b>	<b>5 - 15 minutes</b>
<b>Mass Lock , Mass Centering</b>	<b>None required</b>
<b>Self-calibration</b>	<b>Built-in</b>
<b>Connector type, cable</b>	<b>Hermetical MS-3102E type, 10 pin / 14 pin. 1.5 meter (4.92 ft) UTP cable or customized length</b>
<b>Case type, material</b>	<b>Double-shielded waterproof, stainless steel/aluminum</b>
<b>Case accessories</b>	<b>Bubble level, handle, three leveling feet, protective cap for connector</b>
<b>Weight</b>	<b>12.2 kg (26.9 lbs)</b>
<b>Dimensions including handle, diameter x height</b>	<b>254 x 260 mm (10.0" x 8.27")</b>

\* - One option per sensor