



CME-6011

Force-balance broadband seismometer

Features:

High Performance Broadband Seismometer

Wide dynamic range

Optimized for field survey

Low power consumption

Easy installation

No mass lock or mass centering needed

Resistant to frequent repositioning

Built-in calibration coil

0.033 (30 sec) – 50 Hz bandwidth

2000 V/(m/s) sensitivity

15V peak-to-peak differential output

Installation tilts up to 15 degrees

Cost-effective solution



The CME-6011 seismometers combine the low-noise molecular-electronic sensing element (transducer) and the electrodynamic feedback, which results in very flat response over wide frequency range, high dynamic range and greatly improved time and temperature stability of the instrument parameters.

This seismometer contains 3 identical high-sensitive molecular-electronic sensors – transducers arranged along the three orthogonal axes (Z, X, Y). The feedback coil of each transducer may act as a calibration coil and let form and control the standard sensor's responses.

Like other molecular-electronic instruments, the 6011 seismometer is very rugged and does not require any special means or procedures for transportation and installation. The only procedure needed prior to start the operation is to place the seismometer on a 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.

Sensor specifications*

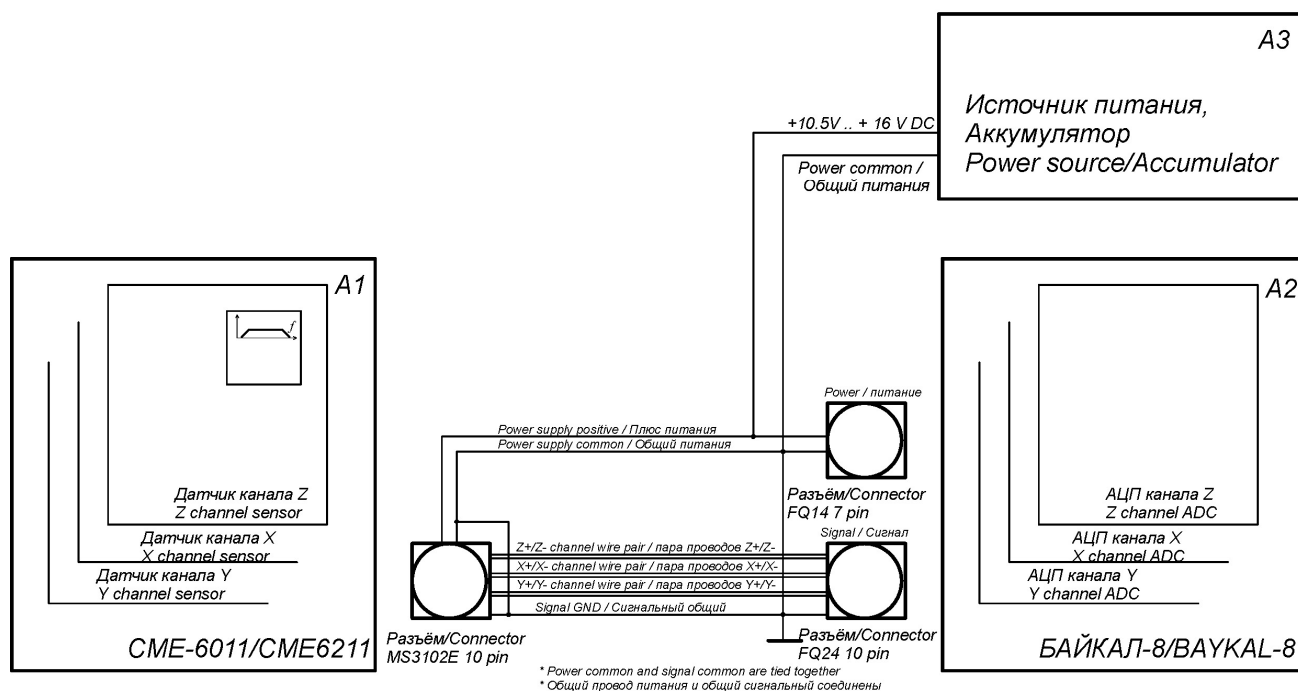
Sensor type	Molecular-electronic seismic sensor
Axes	Triaxial, orthogonal - Up, North, East
Sensitivity	2000 $\frac{V}{m/sec}$
Clip level	7.5 mm/sec
Bandwidth	0.033 (30 sec) – 50 Hz (standard) 0.016 (60 sec) – 50 Hz (optional) 0.033 (30 sec) – 100 Hz (optional)
Dynamic range at 1 Hz	127 dB
Cross-axis coupling	-60 dB
Nonlinearity at 1 Hz	0.2%
Temperature range	-40°C - +55°C (-40°F - 131°F) (standard) -12°C - +55°C (10.4°F - 131°F) (optional)
Cold-start time	5 - 15 min
Maximum installation tilt	±15°
Leveling, mass locking	Not required
Integral noise in the band	
0,033 (30 sec) – 50 Hz	35.6 nm/sec (71.2 μV)
0,1 (10 sec) – 20 Hz	9 nm/sec (18 μV)

Electrical specifications*

Supply voltage	12 V Nominal 10.5-16 V permissible
Supply current	30mA (standard) 10mA (low power option)

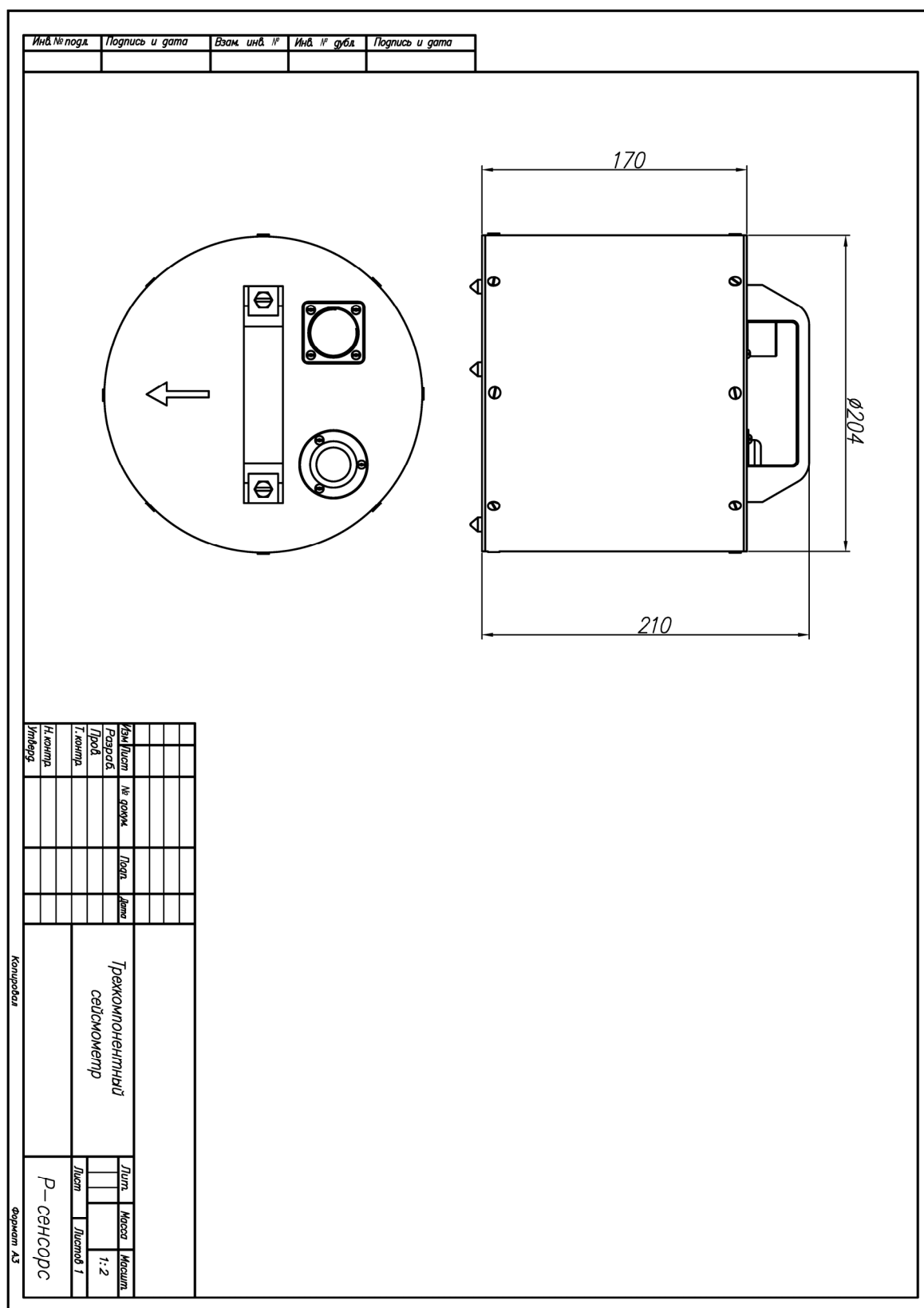
Mechanical specifications*

Connector type	Amphenol MS-3102E type, 10 pin
Dimensions	Diameter 204 mm (8") Height with handle 210 mm (8.27")
Weight	6.5 kg (14,33 lbs)
Case	Aluminum/stainless steel
Case accessories	Bubble level, handle, 3 feet sets, 2 pointers



CME-6011 seismometer typical wiring diagram

* - Some of presented features and parameters apply to specific versions of the seismometer. Specifications are subject to change without notice.



CME-6011 seismometer outline drawing