



Broadband Seismometer CME-6011

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 specifications

The CME-6011 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 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 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 housings filled with electrolyte connected by a channel with electrodes across it. 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

Configuration	Triaxial, orthogonal - Vertical, North, East
Sensitivity	2000 V/(m/s) or customized
Maximum input signal	7.5 mm/sec
Bandwidth: standard extended	0,033 (30 sec) – 50 Hz 0.0167 (60 sec) - 100 Hz
Maximum output swing	±15 V, differential mode
Output impedance	1000 Ohm
Dynamic range at 1 Hz	127 dB
Integral noise in the band 0,033 (30 sec) – 50 Hz 0,1 (10 sec) – 20 Hz	35.6 nm/sec (71.2 μV) 9 nm/sec (18 μV)
Cross-axis sensitivity	-60 dB
Non-linearity at 1 Hz	0.2%
Temperature range	Standard range -12°C - +55°C (10.4°F - 131°F) Low-temperature range -40°C - +55°C (-40°F - 131°F)
Nominal supply voltage	10.5 - 16 V dc (12 V nominal) single supply, non isolated
Nominal supply current	26mA - standard, 10mA - low power
Settling time till correct readings after power on	5 - 15 minutes
Mass Lock , Mass Centering	None required
Self-calibration	Direct, 3 channels
Connector type, cable	Hermetical MS-3102E type, 10 pin. 1.5 meter (4.92 ft) UTP cable or customized length
Case accessories	Bubble level, handle, three feet
Weight	6.5 kg (14.33 lbs)
Dimensions including handle, diameter x height	204 x 210 mm (8" x 8.27")

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

R·sensors

R-sensors LLC

8A Zhukovskogo Street, Dolgoprudny, Moscow Region, 141700, Russia

Tel.: +7 (498) 744-69-95

www.r-sensors.ru | r-sensors@mail.ru

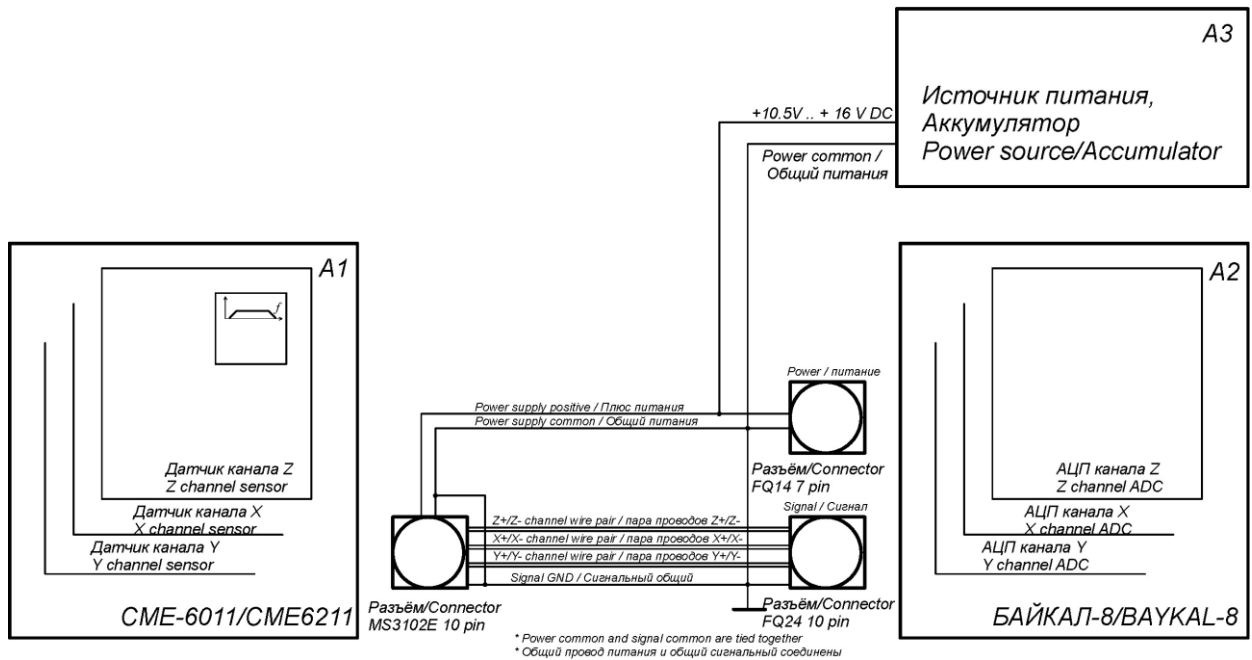


Fig. 1. Typical wiring diagram for CME-6011 seismometer in CME-BAYKAL seismic station

Field cable for Baykal-8

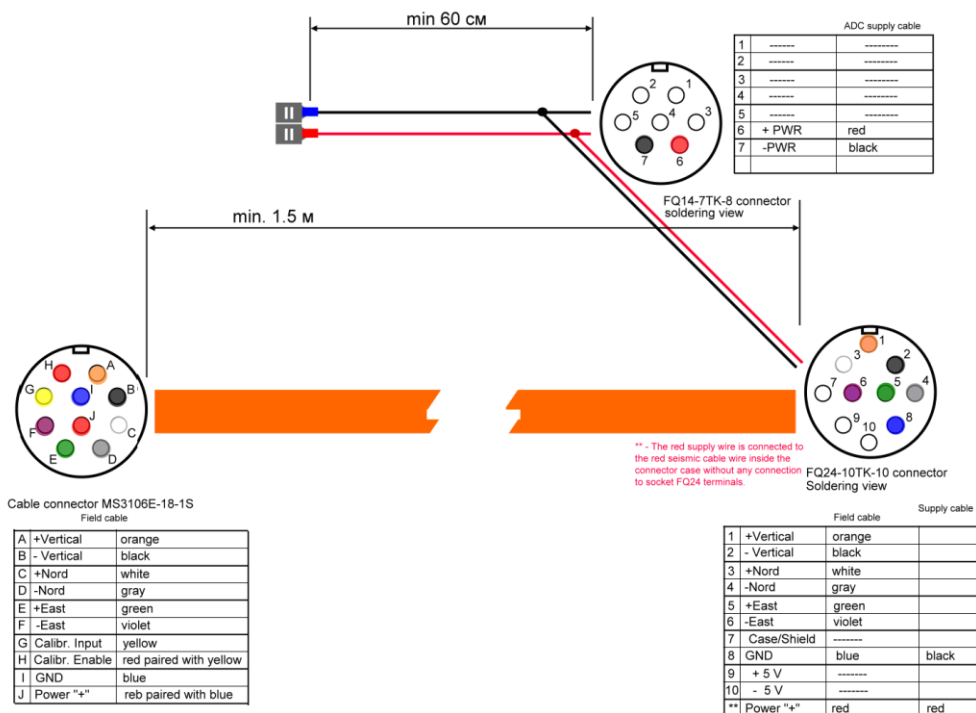


Fig. 2. Field cable pin and cable colour assignments for CME-BAYKAL seismic station

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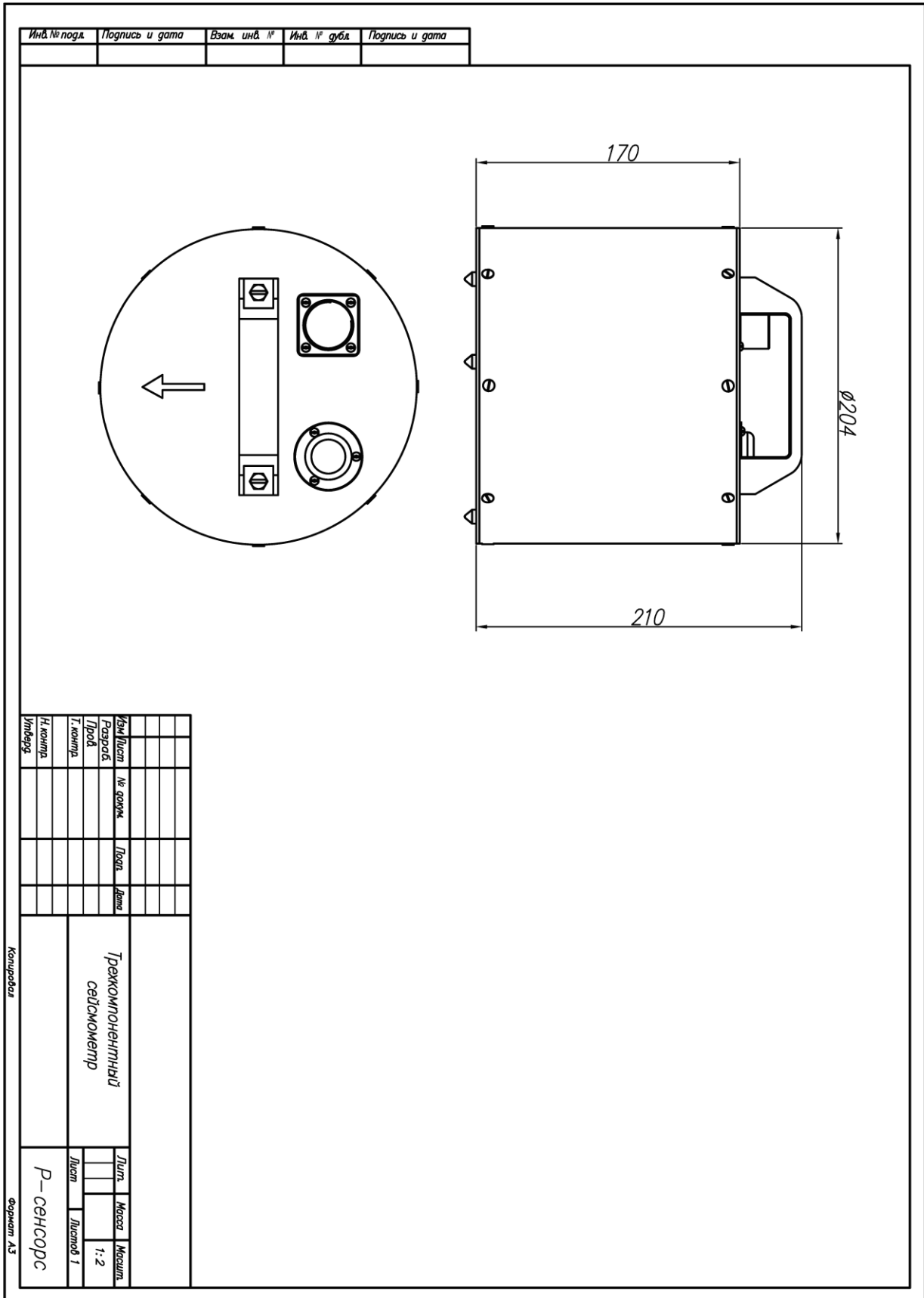


Fig. 3. CME-6011 seismometer outline drawing.

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