



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 very flat response over 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.

More on Molecular-Electron Technology (MET) on www.r-sensors.ru !

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| 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 | ±15V, differential mode |
| Output impedance | 1000 Ohms |
| 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 Vdc (12V 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.



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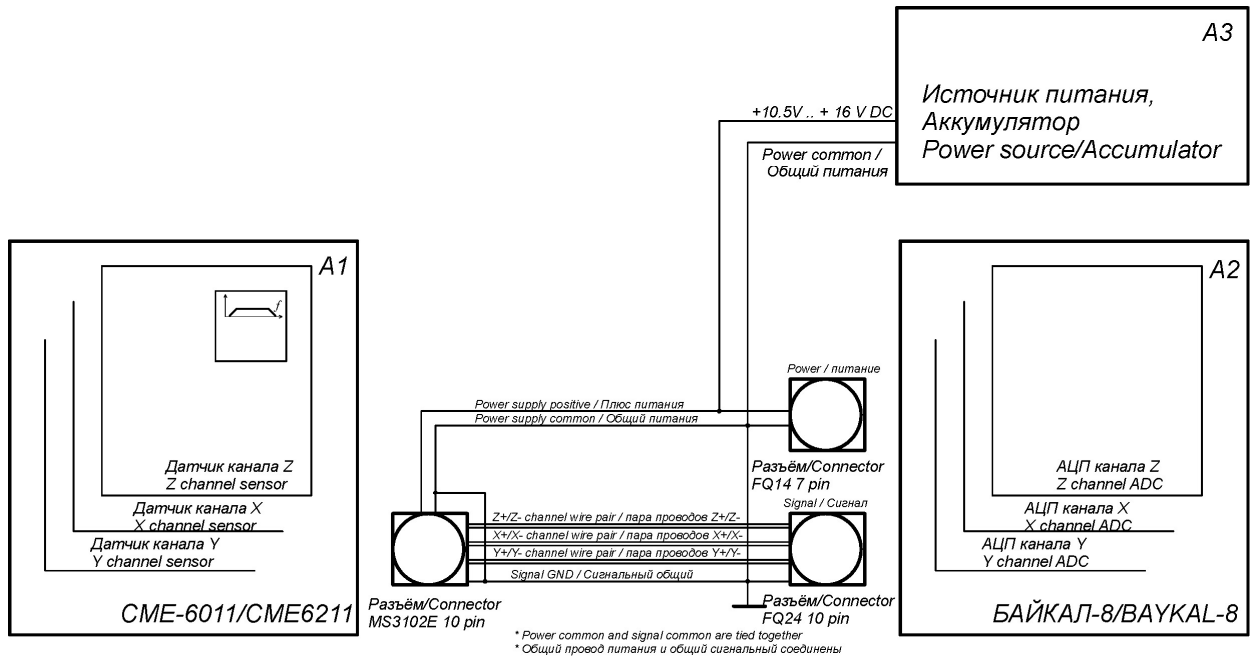


Fig. 1. Typical wiring diagram for CME-6011 seismometer in CME-BAYKAL seismic station

Field cable for Baykal-8

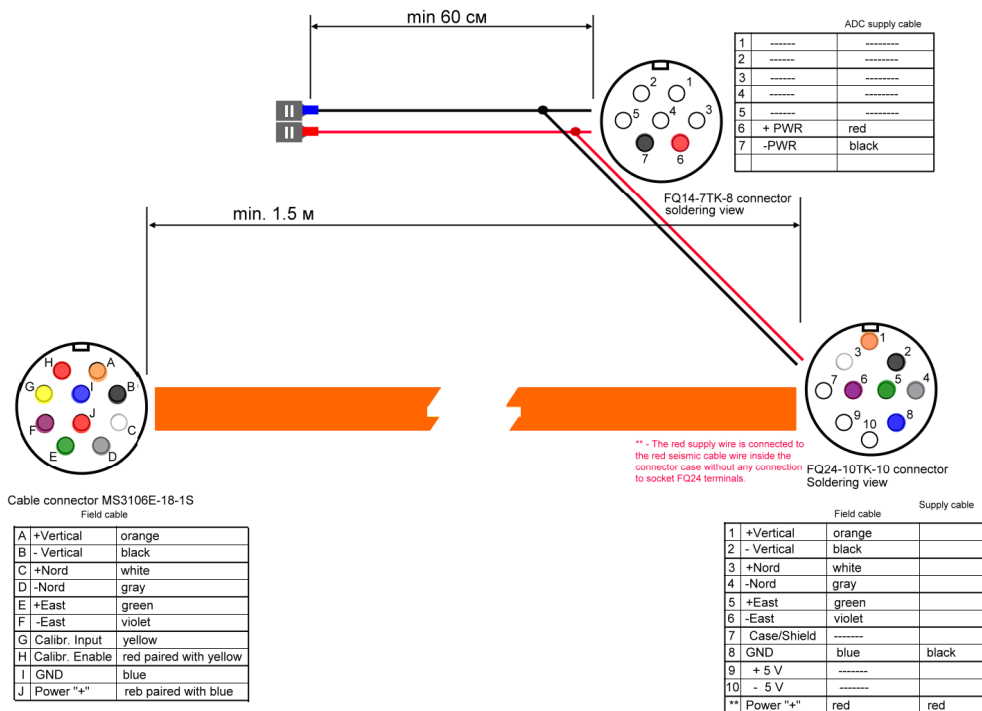


Fig. 2. Field cable pin and cable colour assignments for CME-BAYKAL seismic station

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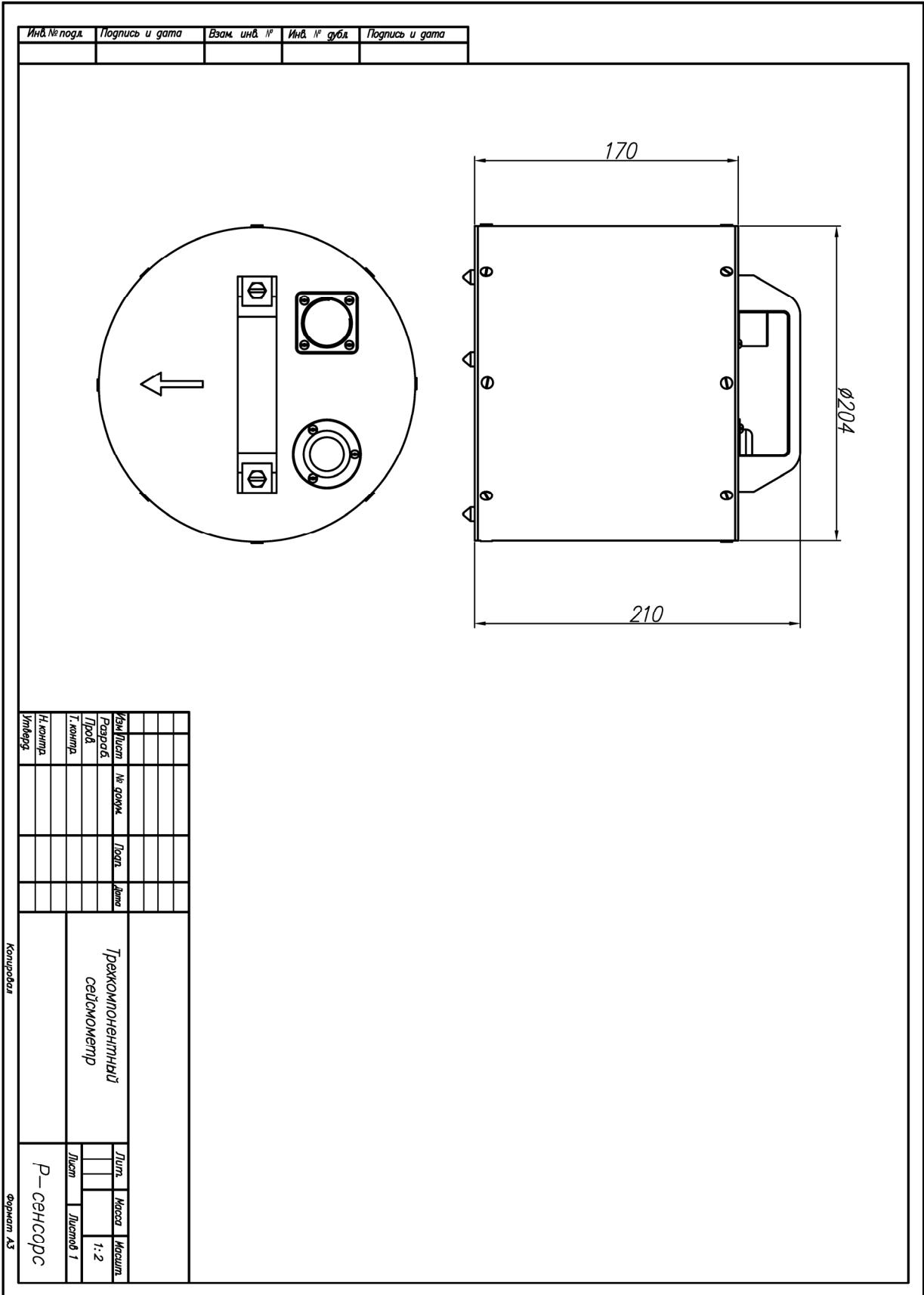


Fig. 3. CME-6011 seismometer outline drawing.

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