



High Performance compact triaxial broad- band seismometer.

Tellus-C is a high quality compact broad-band triaxial seismometer designed for easy deployment and safe transport. Tellus-C is based on Galperin configuration which allows to more easily distinguish external noise sources from internal ones and achieve higher performance. Tellus-C can be ordered with a flat band-pass between 120s-20s and 100Hz. The lower frequency corner can be customized at the order. The transduction factor is 2000V/m/s, the output differential 40Vpp. Tellus-C is manufactured in painted aluminum housing offering a high level of IP68K protection making it ideal for harsh environment and for field use. Tellus-c is robust magnetic shielded and exhibits a low temperature sensitivity.

TELLUS-C

COMPACT BROAD BAND SEISMOMETER

KEY FEATURES

DYNAMIC RANGE > 135dB in RANGE 0.1-10Hz

FREQUENCY RANGE 120s-20s ÷ 100 Hz

TRANSDUCTION FACTOR 2000V/m/s (S)

HIGH ACCURACY

LOW SELF-NOISE

GOOD THERMAL STABILITY

LOW POWER

ROBUST, COMPACT AND LOW WEIGHT

PRECISION FACTORY CALIBRATION

National Seismic Networks / Site Response
 Regional and Tele-seismic Events / Magnitude Estimation
 Restitution of ground displacement / Event Detection and Location
 Volcano eruption / Early Warning

APPLICATIONS

TIPOLOGY Galperin arrangement, Force feedback capacitive transducer
VELOCITY OUTPUT XYZ XYZ (H and V motion) or UVW (masses motion)
BANDWIDTH 120-20s to 100 Hz (customizable)
DYNAMIC RANGE > 135dB between 0.1 Hz and 10 Hz
TRANSDUCTION FACTOR 2000V/m/s (customizable)
SELF NOISE < USGS NLNM between 0.03 to 10Hz
OUTPUT Velocity differential 40Vpp XYZ Mass position Single 10Vpp
CLIP LEVEL 13mm/s
TILT TOLERANCE +/- 3°
OUTPUT IMPEDANCE 2x100 Ohm
CALIBRATION Via dedicated calibration coils (analog test signals)
MASS LOCKING AND CENTERING Not necessary

PERFORMANCE

CONNECTORS MIL-STD 26 pin male mounted on top
DIGITAL INTERFACE RS232 commands and diagnosis
CONTROL LINES GPIOs and Analog Outputs

INTERFACE

SUPPLY VOLTAGE 9 to 36 V DC isolated input
POWER CONSUMPTION 40mA@12V
PROTECTION Reverse-voltage, overvoltage and surge-protected Isolation
GROUNDING Predrilled hole
REGULATION CE compliance

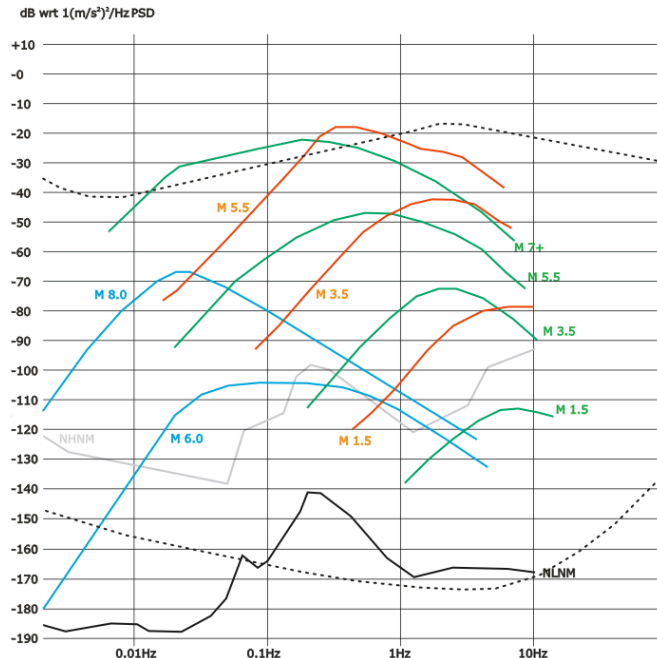
POWER SUPPLY

OPERATING TEMPERATURE -20°C to +50°C
STORAGE TEMPERATURE -40°C to +80°C
HUMIDITY 0 to 100%
WEATHER RESISTANCE IP68K

OP. CONDITIONS

HOUSING aluminum treated against corrosion
LEVELING integrated leveling bubble and adjustable locking leveling screws for spikes available for different surfaces
OD 100 mm
HEIGHT 125 mm
WEIGHT 1,5 Kg
CABLE 3m or custom
 Shock MIL STD 810G

PHYSICAL



Noise level are evaluated using the three channel correlation analysis according to the method explained by R.Sleeman, A.Van Wetteum and J.Trampert (Bulletin of Seismological Society of America Vol.96 N1, Febr 2006).

- LOCAL EVENTS 5 - 50 km
- LOCAL EVENTS 80 - 120 km
- LOCAL EVENTS 1800 - 3200 km
- Clip limit and Noise floor