



TELLUS-BH

BOREHOLE SEISMOMETER

Specifically designed for borehole installation down to 300m.

Tellus-BH can be equipped with one of Lunitek's velocity sensor: short band (1 second - 5 seconds) or broadband (30-60-120 second). All sensors are manufactured using high thermal stability and low noise components. The transduction factor of every single unit is individually calibrated on the shake table with an accuracy within $\pm 1\%$. Tellus-BH short band is equipped with a self-supporting cable so that an additional rope is not needed. Broadband version of Tellus-BH, which are heavier, are equipped with a fixing point for a rope along with the signal cable. Tellus-BH is manufactured in stainless steel (AISI316) and does not require mass locking or centering. A passive clamping system is provided on request.

Tellus-BH provides excellent long term stability, reliable measurements and is ideally suited to challenging sites where measurements can be improved by using borehole installation.

KEY FEATURES

DYNAMIC RANGE > 140dB FOR SHORT BAND, >150dB FOR BROADBAND

FREQUENCY RANGE 1, 5, 30, 60 AND 120 SECONDS UP TO 50HZ (100HZ OPT)

TRANSDUCTION FACTOR 400 V/m/s (SB) and 2000 V/m/s (BB)

HIGH ACCURACY

LOW SELF-NOISE

GOOD THERMAL STABILITY

LOW POWER

ROBUST

NO NEED FOR MASS CENTERING OR MASS LOCKING



Local Seismicity
 Induced Seismicity
 Regional seismicity
 Teleseismic
 Oil and gas exploration

APPLICATIONS

SUPPLY VOLTAGE 10 ÷ 18 VDC (5÷40VDC)
POWER CONSUMPTION < 300mW
PROTECTION Reverse-voltage, overvoltage and surge protected

POWER SUPPLY

TIPOLOGY Triaxial
BANDWIDTH

TELLUS 1S 1Hz up to 100Hz
TELLUS 5S 0.2Hz up to 50Hz
TELLUS 30S 0.033Hz up to 50Hz (100 Hz opt) -3 dB point
TELLUS 60S 0.016Hz up to 50Hz (100 Hz opt) -3 dB point
TELLUS 120S 0.0083Hz up to 50Hz (100 Hz opt) -3 dB point
DYNAMIC RANGE >140dB (shortband) > 150dB (broadband)
TRANSDUCTION FACTOR 400 V/m/s (shortband) 2000V/m/s (broadband)
MAXIMUM INSTALLATION TILT ±15°

PERFORMANCE

OPERATING TEMPERATURE -20°C to +70°C
STORAGE TEMPERATURE -40°C to +80°C
HUMIDITY 0 to 100%
WEATHER RESISTANCE Rated to IP68, immersible

OP. CONDITIONS

TELLUS-1S-BH

OD 70mm
HEIGHT 510mm
WEIGHT 8000 g (Al)

TELLUS 5S, 30S, 60S, 120S-BH

OD 130mm
HEIGHT 220mm
WEIGHT 10000 g (Al)

PHYSICAL

CONNECTOR Teledyne AG, 10-pin,
VELOCITY OUTPUT Differential 15 or 40Vpp
OUTPUT IMPEDANCE 2 x 100 Ω

INTERFACE

