

VSSS – Vibrator Similarity Scale System



For use with any seismic recorder

VSSS is used with Vibrator Control Electronics (VCE) for vibrator quality control. VSSS transforms VCE Reference Signal, output signals of accelerometers, calculated Ground Force signal into low-level differential signals suitable for a seismic data acquisition system.

- Allows Wireline Similarity for any Vibrator Electronics
- Wireline Similarities use True Reference (Pilot) signal for Analysis. Prevents confusion of switching Seismic Recorder to "Wireline Reference".
- VSR - Vibrator Signature Recording - Allows Seismic Recorders to Record Vibrator Signature.



Three main channels: True Reference, Reaction Mass Sim Accelerometer, and Baseplate Sim Accelerometer

Two additional channels: external Reaction Mass Sim Accelerometer and external Baseplate Sim Accelerometer

Four differential outputs: True Reference, Reaction Mass Sim Accelerometer, Baseplate Sim Accelerometer, and Ground Force

- Input impedance of main channels: 1M Ω
- Output impedance of each channel: 430 Ω
- Frequency range: 0.1...10000 Hz
- Phase tolerance of channels: $\pm 0.2^\circ$
- Maximum values for reaction mass and baseplate weights: 9900lbs
- Reaction mass and baseplate setting weights step resolution: 100 lb (1%)

Calibration:

- True Reference differential output: 25mV (Assuming True Reference input is 5V pk, single ended)
- Ground Force differential output: 25microVolts per 100 pound force (Assuming 25mV/g vibrator accelerometers or 10mV/g external accelerometers)
- Reaction Mass and Baseplate Accelerometers differential outputs: 1mV/g (Assuming 25mV/g vibrator accelerometers or 10mV/g external accelerometers)

Power Supply:

- Power Supply Voltage: 10-18V or 10-36 V
- Power Supply Current (Power Supply Voltage: 12V):
 - Using vibrator's accelerometers: 130mA
 - Using external accelerometers: 240mA

Dimensions:

- Size: 206 x 127 x 57 mm (8.1 x 5 x 2.25 in)
- Weight: 2.2 lbs (1.0 kg)

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