

Rotational Seismometer R-2



DESIGN SYSTEMS

The R-2 is rotational triaxial seismometer with magnetohydrodynamic calibration. The R-2 is suitable for measurements of rotational velocity vibrations. The R-2 is high sensitivity instrument with broadband frequency response. The main feature of the seismometer is low self-noise at ultra-low-power consumption of 30 mA. The R-2 has calibration input for calibration without demounting, also seismometer can be used for 6DOF (Six degrees of freedom) systems. The R-2 doesn't require centering of masses and operates under any angle of installation.



Applications:

- Field seismic exploration
- Structural Health Monitoring (e.g. dams, industry, buildings)
- Local seismic monitoring

Channels:	<i>Triaxial orthogonal (XYZ)</i>
Angular velocity output:	<i>0.033 – 50 Hz (option 0.01 – 100 Hz)</i>
Sensor dynamic range:	<i>134 dB @ 1 Hz</i>
Output sensitivity:	<i>50 V/rad/s</i>
Resolution:	<i>$8 \cdot 10^{-8}$ rad/s @ 1 Hz</i>
Self-noise:	<i>-125dB @ $1 \text{ rad/s}^2/\sqrt{\text{Hz}}$</i>
Output Signal Single Ended:	<i>± 20 V differential, 0.4 rad/s</i>
Calibration input:	<i>1:1</i>
Power voltage range:	<i>10-18 V DC</i>
Power consumption:	<i>30 mA</i>
Centering of masses:	<i>Don't require</i>
Connector:	<i>14-pin MS3102</i>
Operating tilt range:	<i>$\pm 180^\circ$</i>
Operating temperature range:	<i>-15 to + 55 °C (option -40 to + 55 °C)</i>
Enclosure/Materials:	<i>aluminium case</i>
Dimensions:	<i>120×120×100 mm</i>
Weight:	<i>1.5 kg</i>

Specifications subject to change without notice