COMPACT ECONOMICAL UNIAXIAL BROADBAND SEISMOMETERS

EP-105-U

The **EP-105-U** is an uniaxial that is designed as a versatile, very compact, lightweight, and very rugged broadband seismic sensor. Unlike traditional seismometers, they are based on proprietary electrochemical transducer technology that provides many advantages over the conventional electromechanical (mass) seismometers. In particular unlike other sensors, the **EP-105-U** noise curve is essential flat starting from about 5Hz toward the longest periods. Each sensor element in **EP-105-U** is equipped with an efficient electrodynamic force-balancing feedback.

The instrument is offered in two application-dependent versions. The standard **EP105-(LN)** is the reduced noise version. An optional model, **EP105-SM** has a higher clip level and is used for strong motion applications. Both versions have the same dynamic range, which is shifted up by approximately 10db in the '***SM***' relatively to the standard '***LN***' version.

The **EP105-U** has an exceptionally rugged design and easily deployed in the field. It **DOES NOT** require mass lock for transportation, mass centering, special installation equipment, or technical installation procedures. The units are operational over a wide range of installation tilts. An optional inclinometer may be installed. The **EP105-U** seismometer provides low cost of ownership, REQUIRING no maintenance over the life of the instrument. Three and five-year extended warranties are available.

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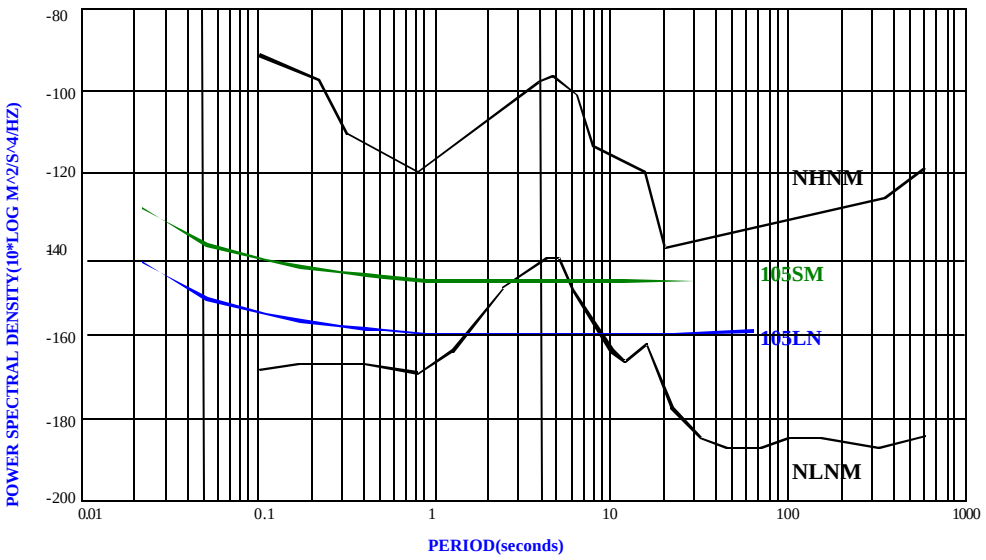
EP-105-U Specifications

PARAMETER	EP105-U
Operating principle	Force-balanced Proprietary Electrochemical Sensor
Output signals	Horizontal or Vertical specify at order; broad band, velocity flat response
Standard output swing:	?10 V single-ended; (?20 V p-p) See Low Power Version below
Dynamic Range	142 dB
Bandwidth	0.033 – 50 Hz
Generator constant	Standard: 2000 V/m/s; Optional: 350 – 20,000 V/m/s
Self noises	Below the USGS NLNM at 0.06Hz to 5Hz
Mass Lock	NONE REQUIRED
Mass centering	NONE REQUIRED
Maximum installation tilt	?12 ?
Mechanical resonances	None
Environmental	Waterproof, submersible (1m)
Temperature range	-12 to + 55 ?C
Housing material	Aluminum
Case diameter	120 mm
Case height	160 mm
Weight	3kg
Installation	Level bubble, NO MASS CENTERING
Power – Regular	10 – 15 Vdc; (Nominal 12Vdc); 10mA
Connectors	8-pin circular

NOISE CURVES



Specifications subject to change without notice ***US patent No.6,576,103*** 0606

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