

## COMPACT RUGGED MEDIUM PERIOD UNIAXIAL SEISMOMETER

**SP400-U** 



The SP-400-U instrument is designed as a versatile, very rugged medium period seismic sensor. Unlike traditional seismometers, they are based on proprietary electrochemical transducer technology. These instruments have many advantages over conventional electromechanical sensors.

This single-channel vertical (or horizontal) seismometer, SP-400-U, can be easily installed without requiring any adjustments other than leveling. The efficient electrodynamic force-balancing feedback provides for excellent parameter stability and linearity. These instruments have been redesigned recently and are now much more compact and weigh less than their predecessors while maintaining the same high performance characteristics.

SP-400-U seismometer is offered in two application-dependent versions: a higher clip level SP-400-U-SM, and the standard reduced noise SP-400-U-RN. Both versions have the same dynamic range, which is shifted up by approximately 10db toward stronger ground motions in the SM version.

The SP-400-U has an exceptionally rugged design, does not require mass lock or special installation equipment or procedures and stays operational over a wide range of installation tilts. These seismometers provide a low cost of ownership, *requiring no maintenance* over the life of the instrument.

Three and five-year extended warranties are available.

Specifications subject to change without notice

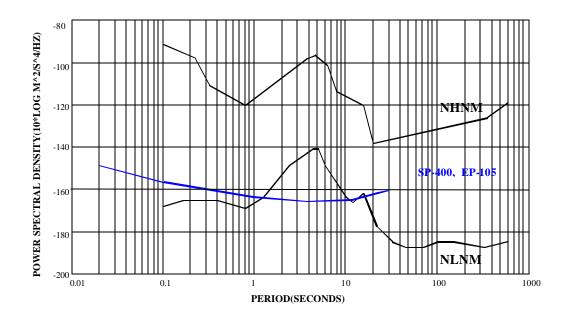
US patent No.6,576,103

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## **SP-400-U Specifications**

PARAMETER	SP-400-U
Operating principle	Proprietary Electrochemical Sensors; force-balanced
Output signals	1 vertical; velocity flat response
Output swing:	+/-20 V differential; (40 V p-p)
Dynamic Range	142 dB
Passband	0.06 – 50 Hz
Generator constant	Standard: 2000 V/m/s; Optional: 350 – 20,000 V/m/s
Maximum installation tilt	+/-12 deg
Mechanical resonances	none
Environmental	Waterproof, submersible (1m)
Temperature range	-12 to + 55 °C
Housing material	Aluminum
Case diameter	65 mm
Case height	245 mm
Weight	Appx. 1.5 kg (3 lbs)
Power Std. SP400c/400cU	9 – 14 Vdc; (Nominal 12Vdc); 12mA
Power – Low power version	5 – 15 Vdc; 8.A @ 12 Vdc
Connectors	14-pin circular

## **SP400 NOISE FLOORS AND CLIP LEVELS**



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