

The **SP-400** Series instruments are designed as versatile, very rugged medium period seismic sensors. Unlike traditional seismometers, they are based on proprietary electrochemical transducer technology¹.



These instruments have many advantages over conventional electromechanical sensors.

This seismometer is available as a three-channel instrument with three identical sensors for its vertical and horizontal components, or a single-channel seismometer (**SP-400U**), which is readily convertible from vertical to horizontal sensor. Force-balancing feedback provides for excellent response stability and linearity.

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

The **SP-400** has an exceptionally rugged design, does not require mass lock or special installation equipment or procedures and stays operational in a wide range of installation tilts.

These seismometers provide a low cost of ownership, **requiring no maintenance** over the life of the instrument. Borehole configurations including inclinometers are optional. Three and five-year extended warranties are available.

¹ US patent No.6,576,103

Specifications subject to change without notice

Sales and Marketing

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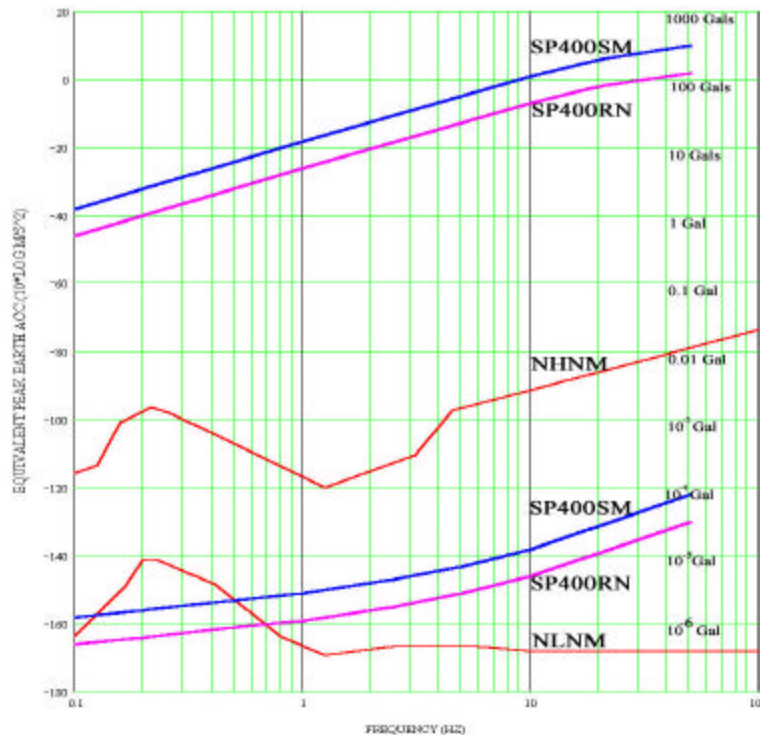
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SP-400 Specifications

PARAMETER	SP-400
Operating principle	Proprietary Electrochemical Sensors ² ; force-balanced
Output signals	2 horizontal, 1 vertical; velocity flat response
Output swing:	+/-10 V single-ended; (+/-20 V p-p)
Dynamic Range	142 dB
Passband	0.1 – 50 Hz
Generator constant	Standard: 2000 V/m/s; Optional: 350 – 20,000 V/m/s
Maximum installation tilt	+/-10 deg
Mechanical resonances	none
Environmental	Waterproof, submersible (1m)
Temperature range	-12 to + 55 °C
Housing material	Aluminum
Case diameter	200mm
Case height	220mm
Weight	~6kg
Power	9 – 13 Vdc; (Nominal 12Vdc); 28mA
Connectors	14-pin circular

SP-400 NOISE FLOORS AND CLIP LEVELS



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