

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 re-designed 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.

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

