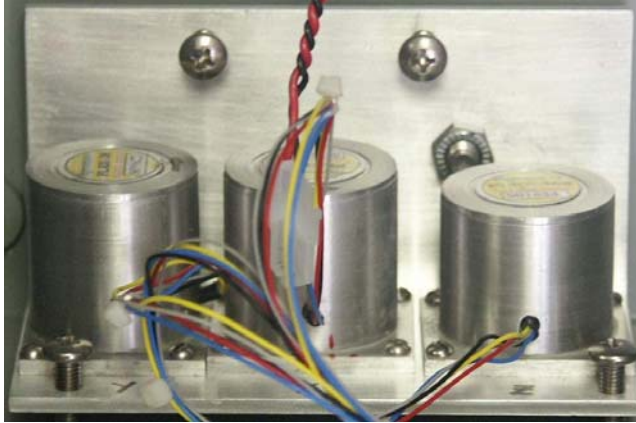




## **Rugged Very Low-Noise Low Power Triaxial Force- Balanced Accelerometers CLA400**



The **CLA400** occupies the high-end position in the Servo Force Balance Accelerometer line. It offers very low noise, high dynamic range in the frequency band of DC to 50 Hz. It is suited for specialized strong motion monitoring applications. The **CLA400** standard packaging is an open-ended ball-bearing mounted metal plate that can be mounted internally in the PMD **SMLA6501** or **SMLA6102** recorders. Optional freestanding field or bore-hole packages are available. The sensor elements are housed in an epoxy sealed aluminum case. They are extremely rugged, and designed for long-term deployment in field environments. Unlike solid-state type accelerometers, the **CLA400** does not exhibit significant drifting with temperature changes. Options include a variety of full-scale "g" levels, user selectable full-scale "g" ranges, and extended frequency bands.

## CLA400 Specifications

Parameter	Specification
Full Scale Standard Optional	$\pm 2g$ ( $\pm 2000g$ ) $\pm 0.5g$ to $\pm 5g$ user selectable
Dynamic Range	142 dB @ $\pm 10V$ differential 148 dB @ $\pm 20V$ differential
Passband: standard Passband: optional	DC – 50Hz; +1, -3dB (damping 0.7 critical) DC – 100Hz, 200Hz (damping 0.7 critical)
Output Signal Swing	$\pm 5V$ ; $\pm 10V$ ; $\pm 20V$ differential; 0 to 5V; $\pm 2.5$ ; $\pm 5V$ ; $\pm 10V$ Single-ended;
Resolution @ $\pm 20V$ differential	0.1 $\mu g$ @ 1g; 0.2 $\mu g$ @ 2g
Zero g Bias	$\pm 0.01g$ electronic adjustment
Linearity	$\pm 0.025\%$ FS over temperature range;
Cross Axis Sensitivity	0.003g/g;
Operating Temperature Range	-20 to +75C Optional to +85C
Power Supply	12V nominal
Supply Current (max. triaxial)	30mA
Vibration (max.)	10g p-p in 2 – 2000Hz band
Shock (max.)	1000g, 1ms; 100g, 11ms
Humidity	95% R.H. Optional 100% R.H.
Housing (stand alone units only): Std: Optional:	Aluminum NEMA6; Stainless Steel; Borehole; Customized.
Built-in units (into SMLA recorders):	Tilt-adjustable (ball-bearing) plate