1000SI Series- Uniaxial Capacitive Accelerometer

Features:

- Accurate DC measurement
- Voltage Output
- Wide frequency response
- High shock protection
- Ultra-low noise, low power
- High resolution
- Gas damping

Applications:

- Seismic measurements
- Structural monitoring and testing
- Safety systems measurements
- Noise measurements

Capacitive accelerometers are based on proven micro-electro-mechanical systems (MEMS) technology. These capacitive accelerometers are reliable and long-term stable. They have a DC response. The advantage of these sensors is their outstanding temperature stability, their high-frequency response and they are low noise-high resolution features. These sensors have a reliable aluminum housing with IP68 protection class.

Dynalabs 1000SI series uniaxial accelerometers provide an ultra-low noise performance from 0.7 to 1.2 µg/√Hz. These accelerometers provide excellent bias and scale factor stability and a wide frequency range (±3dB) from 550 Hz to 700 Hz.

Specifications:

		1003SI	1005SI
Full-scale acceleration	**(g)**	**± 3**	**± 5**
White Noise	(µg/√Hz)	0.7	1.2
Noise (Integrated over 0.1Hz to 100Hz)	(µg)	8	13
Dynamic range (0.1Hz to 100Hz)	(dB)	108.5	108.5
Scale Factor Sensitivity	(mV/g)	900	540
Bandwidth (±3dB)	(Hz)	550	700
Operating power consumption	(mW)	90	90

Physical and Environmental:

Protection Level	IP 68
Operating Voltage	6 V – 40 V
Operating Temperature	-40 °C to +100 °C
Weight (without cable)	15 g (aluminum) 30 g (steel)
Housing Material	Aluminum or Steel
Connector (Optional)	D-Sub 9 or 15 pin, Lemo, Binder
Mounting	Adhesive or screw mount
Base plate (Optional)	Aluminum or Steel

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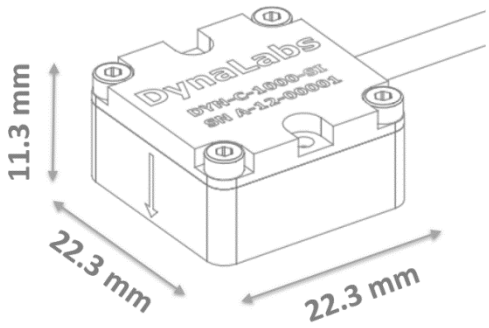
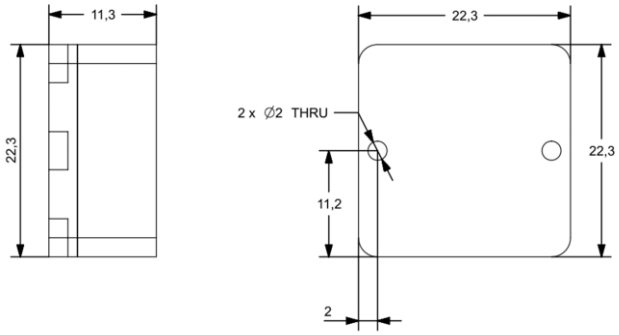
Technical Drawings:





Options:

- Custom Cable Length (5m standard cable)
- Custom Housing Material
- Custom Connector
- Base plate

Standard length of the integrated cable is 5 meters. But, based on request customized cable lengths are possible.

Standard version has no connector at the cable end. However, it is possible to assemble connector during production.

Cable Code/Pin Configuration:

- Red : V + Power Supply voltage +6 to +40 VDC
- Black : Ground Power GND
- X-Axis: Yellow : Signal(+) Positive, analog output voltage signal for differential mode
  Blue : Signal(-) Negative, analog output voltage signal for differential mode

Cable: 4x #28 AWG Conductors PFA Insulated, Braided Shield, TPE Jacket

Quality:

All Dynalabs products are **CE** compliant.