ANALOG CAPACITIVE ACCELEROMETER

DynaLabs

DYN-C-3000-SI

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 3000SI series triaxial 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.

Features

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

Application Areas

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

		3003SI	3005SI
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

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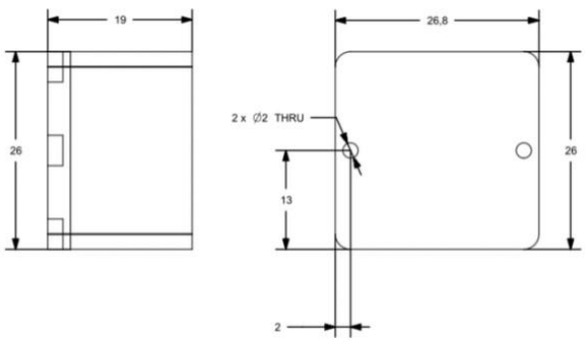

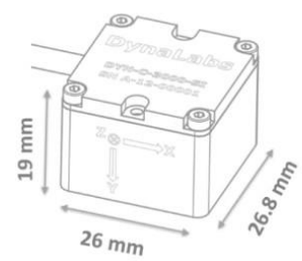

OPTIONS:

- 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 a connector during production.

CABLE CODE/PIN CONFIGURATION:

• Red	: V +	Supply voltage
• Black	: Ground	GND
• X-Axis : Yellow	: Signal(+)	Positive, analog output voltage signal for differential mode
: Purple	: Signal(-)	Negative, analog output voltage signal for differential mode
• Y-Axis : Blue	: Signal(+)	Positive, analog output voltage signal for differential mode
: Green	: Signal(-)	Negative, analog output voltage signal for differential mode
• Z-Axis : White	: Signal(+)	Positive, analog output voltage signal for differential mode
: Orange	: Signal(-)	Negative, analog output voltage signal for differential mode

Cable: 8x #28 AWG Conductors PFA Insulated, Braided Shield, TPE Jacket

Protection Level	Operating Voltage	Operating Temperature	Weight (without cable)
IP 68	6 V – 40 V	-40 °C to +100 °C	28 g (aluminum) 55 g (steel)

Housing Material	Connector (Optional)	Mounting	Base plate (Optional)
Aluminum or Steel	D-Sub 9 or 15 pin, Lemo, Binder	Adhesive or screw mount	Aluminum or Steel

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