

Features:

- Accurate DC measurement
- Voltage Output
- High shock protection
- Light weight, compact
- Wheatstone bridge
- Gas damping



Applications:

- Automotive Crash testing
- Drop testing
- Shock testing

The piezoresistive accelerometers are based on micro-electro-mechanical systems (MEMS) technology. Piezoresistive accelerometers are used for high impact applications in automotive industry such as crash testing. 4000 Series Dynalabs uniaxial accelerometers feature a wide frequency range up to 5,000 Hz and excellent shock resistance up to 10,000 g.

4000 series accelerometers are lightweight. They have reliable aluminum housing with IP68 protection class. These sensors have integrated cable with configurable length and connection options.

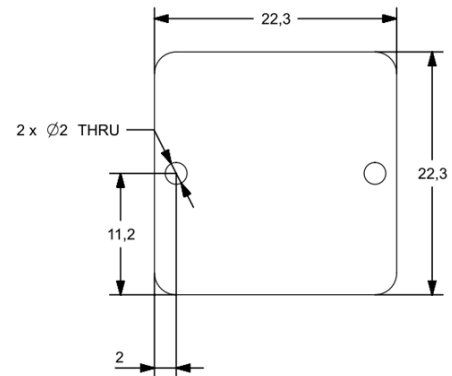
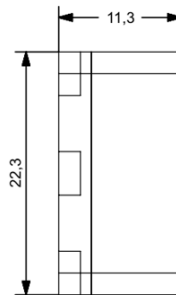
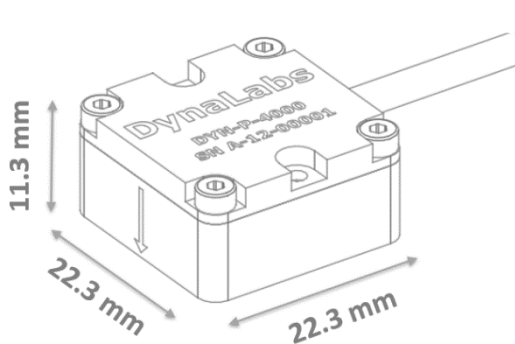
Specifications:

		4010	4020	4050	4200	4600
Full-scale acceleration	(g)	± 100	± 200	± 500	± 2000	± 6000
Sensitivity (@10V excitation)	(mV/g)	1.2	1.2	0.6	0.3	0.3
Frequency range (±5%)	(Hz)	1,200	1,400	2,000	4,500	5,000
Non-linearity (full scale)	(%)	1	1	1	1	2
Shock survivability	(g)	5,000	5,000	5,000	5,000	10,000
Transverse Sensitivity	%	<3	<3	<3	<3	<3
Damping Ratio		0.9	0.6	0.6	0.3	0.3
Zero Acceleration Output	(mV)	±25	±25	±25	±25	±25

Physical and Environmental:

Protection Level	IP 68
Operating Voltage	10 V – 40 V
Operating Temperature	-40 °C to +100 °C
Weight (without cable)	13 g (aluminum)
Housing Material	Aluminum/Steel
Connector (Optional)	D-Sub 9 or 15 pin, Lemo, Binder
Mounting	Adhesive or screw mount
Base plate (Optional)	Aluminum/Steel

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+ | Supply voltage +10 to +40V |
| • Black | : Ground | 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.