

Features:

- Accurate DC measurement
- Output Voltage
- High shock protection
- Light weight
- 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. 5000 Series Dynalabs triaxial accelerometers feature a wide range up to 5,000 Hz and excellent shock resistance up to 10,000 g.

5000 series accelerometers are lightweight. They have reliable aluminum housing with IP68 protection class. These sensors have integrated cable with configurable length and connection options.

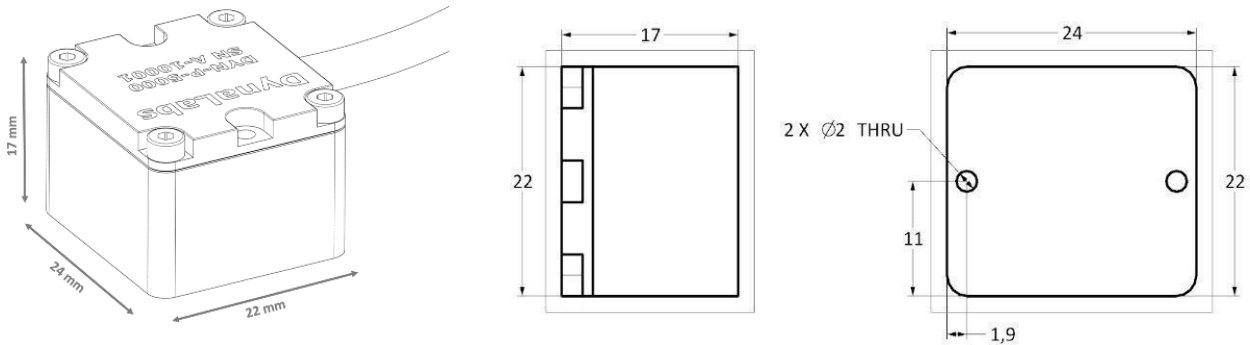
Specifications:

		5010	5020	5050	5200	5600
Full-scale acceleration	(g)	± 100	± 200	± 500	± 2000	± 6000
Sensitivity	(mV/g)	0.6	0.6	0.3	0.15	0.15
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 – 20 V
Operating Temperature	-40 °C to +100 °C
Weight (without cable)	17 g (aluminum)
Housing Material	Aluminum
Connector (Optional)	D-Sub 9 or 15 pin, Lemo, Binder
Mounting	Adhesive or screw mount
Base plate (Optional)	Aluminum

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 V to +20 VDC. |
| • Black | : Ground | GND |
| • X-Axis: Yellow: | Signal(+) | Positive, analog output voltage signal. |
| | Purple : Signal(-) | Negative, analog output voltage signal. |
| • Y-Axis: Blue: | Signal(+) | Positive, analog output voltage signal. |
| | Green: Signal(-) | Negative, analog output voltage signal. |
| • Z-Axis: White: | Signal(+) | Positive, analog output voltage signal. |
| | Orange: Signal(-) | Negative, analog output voltage signal. |

Quality:

All Dynalabs products are **CE** compliant.