

Features:

- Accurate DC measurement
- Voltage Output
- High frequency response
- High shock protection
- Low noise – high resolution
- Differential-ended output signal
- Gas damping



Applications:

- Structural monitoring and testing
- Aerospace vibration testing
- Automotive ride quality & comfort
- Railway engineering
- GVT and flutter testing

Capacitive accelerometers are based on proven micro-electro-mechanical systems (MEMS) technology. These capacitive accelerometers are reliable and long-term stable. They have 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 reliable aluminum housing with IP68 protection class.

Dynalabs 3000DE series triaxial accelerometers provide an outstanding noise performance from 25 to 170 $\mu\text{g}/\text{VHz}$. These accelerometers provide a wide frequency range ($\pm 3\text{dB}$) from 1,500 Hz to 3,000 Hz.

Specifications:

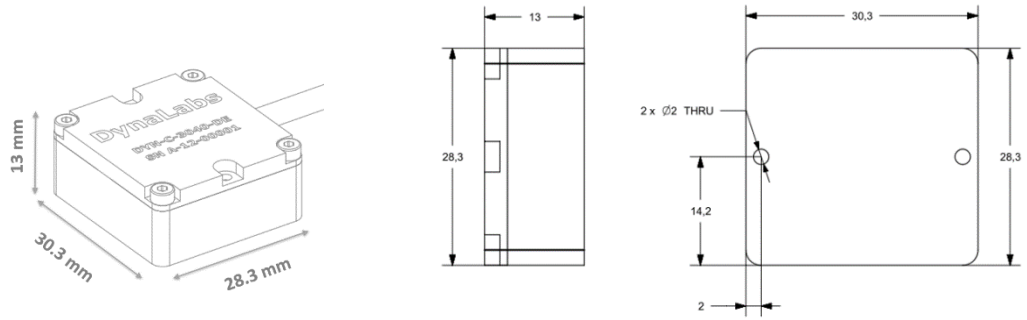
		3002DE	3004DE	3008DE	3010DE	3020DE	3040DE	3050DE	3100DE	3200DE	3500DE
Full-scale acceleration	(g)	± 2	± 4	± 8	± 10	± 20	± 40	± 50	± 100	± 200	± 500
Frequency range ($\pm 3\text{dB}$)	(Hz)	1,500	1,500	1,500	1,500	1,500	1,500	3,000	3,000	3,000	3,000
Non-linearity (full scale)	(%)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Noise (in band)	($\mu\text{g}/\text{VHz}$)	25	25	25	80	75	110	35	50	80	170
Scale factor (nominal)	(mV/g)	1,600	800	400	320	160	80	80	40	20	8
Shock survivability	(g)	5,000	5,000	5,000	5,000	5,000	5,000	6,000	6,000	6,000	6,000

Physical and Environmental:

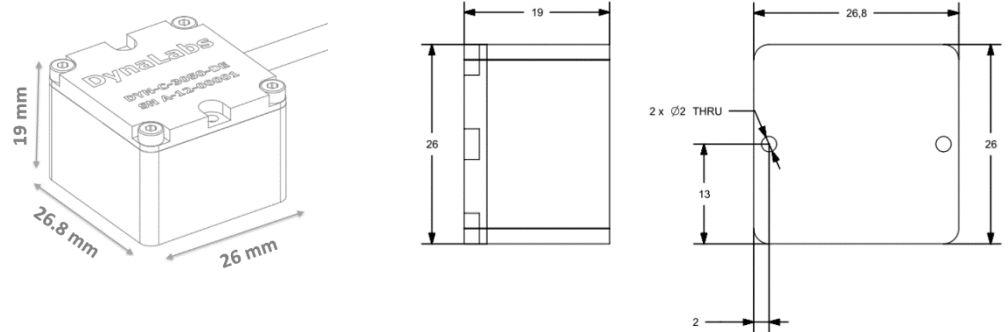
Protection Level	IP 68
Operating Voltage	6 V – 40 V
Operating Temperature	-40 °C to +100 °C
Weight (without cable)	25 g (aluminum) 55 g (steel)
Housing Material	Aluminum or Steel
Connector (Optional)	D-Sub 9 or 15 pin, Lemo, Binder
Mounting	Adhesive or screw mount
Base plate (Optional)	Aluminum or Steel

Technical Drawings:

$\pm 2g$ to $\pm 40g$:



$\pm 50g$ to $\pm 500g$:



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
- 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

Quality:

All Dynalabs products are **CE** compliant.