

Features:

- Accurate DC measurement
- Voltage Output
- High shock protection
- Low noise – high resolution
- Single-ended output signal
- Gas damping
- Low cost sensors



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, low noise- high resolution features and their low cost. These sensors have reliable aluminum housing with IP68 protection class.

Dynalabs 1000SE series uniaxial accelerometers provide an outstanding noise performance from 25 to 1,200 $\mu\text{g}/\sqrt{\text{Hz}}$. These accelerometers provide a wide frequency range ($\pm 3\text{dB}$) from 1,500 Hz to 3,000 Hz.

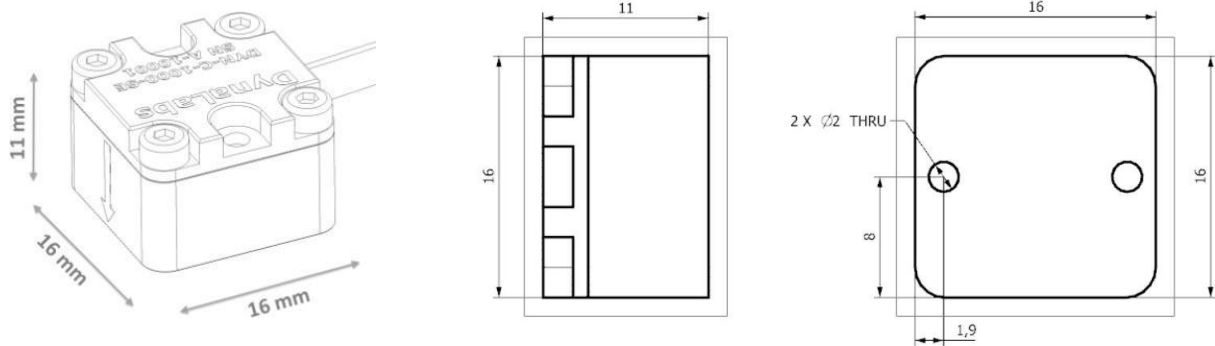
Specifications:

| | | 1002SE | 1004SE | 1008SE | 1010SE | 1020SE | 1040SE | 1050SE | 1100SE | 1200SE | 1500SE |
|--------------------------------------|------------------------------------|---------|---------|---------|----------|----------|----------|----------|-----------|-----------|-----------|
| 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) | ($\mu\text{g}/\sqrt{\text{Hz}}$) | 25 | 25 | 25 | 80 | 80 | 110 | 130 | 220 | 550 | 1,200 |
| Scale factor (nominal) | (mV/g) | 400 | 200 | 100 | 80 | 40 | 20 | 40 | 20 | 10 | 4 |
| 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 – 20 V |
| Operating Temperature | -40 °C to +100 °C |
| Weight (without cable) | 9 g (aluminum) 19 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:



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 +20VDC.
- Black : Ground Power GND
- Yellow : Signal Out
- Blue : nc Not Connect

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

Quality:

All Dynalabs products are **CE** compliant.