

## 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  $\mu\text{g}/\sqrt{\text{Hz}}$ . These accelerometers provide a wide frequency range ( $\pm 3\text{dB}$ ) from 1,500 Hz to 3,000 Hz.

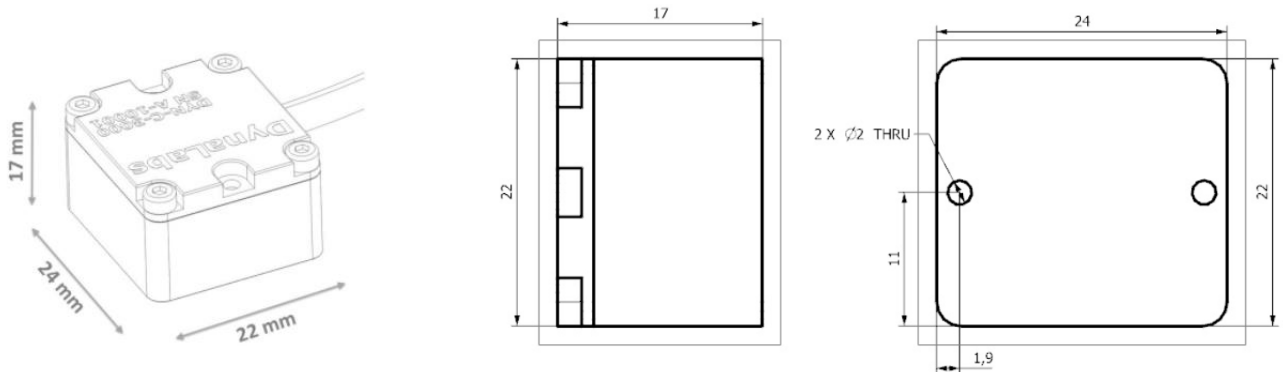
## Specifications:

		3002DE	3004DE	3008DE	3010DE	3020DE	3040DE	3050DE	3100DE	3200DE	3500DE
Full-scale acceleration	(g)	$\pm 2$	$\pm 4$	$\pm 8$	$\pm 10$	$\pm 20$	$\pm 40$	$\pm 50$	$\pm 100$	$\pm 200$	$\pm 500$
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	75	110	35	50	80	170
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)	19 g (aluminum) 44 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 + 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.

## Quality:

All Dynalabs products are **CE** compliant.