

# **3000SE Series - Triaxial Capacitive Accelerometer**

#### Features:

- Accurate DC measurement
- Voltage Output
- High frequency response
- 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 3000SE series triaxial accelerometers provide an outstanding noise performance from 25 to  $1,200 \mu g/VHz$ . These accelerometers provide a wide frequency range (±3dB) from 1,500 to 3,000 Hz.

# **Specifications:**

		3002SE	3004SE	3008SE	3010SE	3020SE	3040SE	3050SE	3100SE	3200SE	3500SE
Full-scale acceleration	(g)	± 2	± 4	± 8	± 10	± 20	± 40	± 50	± 100	± 200	± 500
Frequency range (±3dB)	(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)	(μg/√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

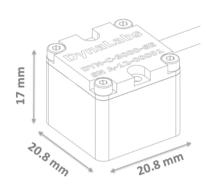
# **Physical and Environmental:**

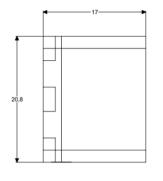
Protection Level	IP 68				
Operating Voltage	6 V – 40 V (±2g to ±40g)				
	6 V – 35 V (±50g to ±500g)				
Operating Temperature	-40 °C to +100 °C				
Matala ( the control )	20 g (aluminum)				
Weight (without cable)	40 g (steel)				
Housing Material	Aluminum or Steel				
Connector (Optional)	D-Sub 9 or 15 pin, Lemo, Binder				
Mounting	Adhesive or screw mount				
Base plate (Optional)	Aluminum or Steel				

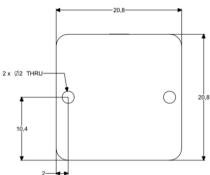


# **3000SE Series - Triaxial Capacitive Accelerometer**

# **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 voltageBlack : Ground Power GND

X-Axis: Yellow : Signal Analog output voltage signal for single ended
Y-Axis: Blue : Signal Analog output voltage signal for single ended
Z-Axis: White : Signal Analog output voltage signal for single ended

Cable: 5x #28 AWG Conductors PFA Insulated, Braided Shield, TPE Jacket

# Quality:

All Dynalabs products are **CE** compliant.