

Measurement Specialties brings more than twenty years experience in the design and manufacture of accelerometers and vibration sensors based on our proprietary Micro-ElectroMechanical System (MEMS), bonded gauge and piezoelectric ceramic/film technologies.







Voltage mode piezoelectric is the most popular accelerometer design due to its high level output and its wide bandwidth. We offer voltage mode accelerometers in the traditional 3-wire or 2-wire (IEPE) configurations. Charge mode piezoelectric accelerometers are designed for measuring shock and vibration in high temperature environments. In addition to its high temperature operating capability when used with a high quality charge amplifier, a charge mode accelerometer offers its users unmatched dynamic range scalability. To measure motion (velocity, displacement) accurately, an accelerometer with DC response is required. Incorporating state-of-the-art MEMS technologies and the latest analog and digital ASIC's, Measurement Specialties' DC accelerometers offer the best-in-class performance and exceptional value.



DC Accelerometers

Plug and Play, Unamplified

Uses piezoresistive MEMS technology with high over-range protection and application-specific packaging.

						
Package	Plastic	Anodized Aluminum	Anodized Aluminum	Anodized Aluminum	Anodized Aluminum	Anodized Aluminum
Type	Adhesive Mount	Screw Mount	Adhesive Mount	Screw Mount	Screw Mount	Adhesive/Screw Mount
F.S.Range (g)	±50, 200, 500, 2000	±50, 200, 500, 2000	±50, 200, 500, 2000	±50, 100, 200, 500, 2000, 6000	±500, 1000	±50, 100, 200, 500, 1000
Unique Features	<ul style="list-style-type: none"> - Low cost - Gas damping - Over-range stops 	<ul style="list-style-type: none"> - Low cost - Gas damping - Over-range stops 	<ul style="list-style-type: none"> - Low cost - Gas damping - Over-range stops 	<ul style="list-style-type: none"> - SAE J211 / 2570 compliant - Flexible, rugged cable - Over-range stops 	<ul style="list-style-type: none"> - SAE J211/2570 Compliant - Rugged Cable - Critically Damped 	<ul style="list-style-type: none"> - Small size - Flexible, rugged cable - Over-range stops
Accuracy	±1.0% Non-linearity	±1.0% Non-linearity	±1.0% Non-linearity	±1.0 % Non-linearity	±1.0% Non-linearity	±1.0 % Non-linearity
Operating Temp	-40°C to 90°C	-40°C to 90°C	-40°C to 90°C	-40°C to 121°C	-40°C to 121°C	-20°C to 85°C
Dimensions (mm)	9.65 x 4.83 x 3.3	44 x 40 x 15	9.65 x 4.83 x 3.3	12.19 x 4.83 x 4.83	10.14 x 10.14 x 5.08	8.89 x 8.89 x 9.4
Typical Apps	Vibration/shock monitoring, shock testing, safety impact testing, side-impact testing	Vibration/shock monitoring, shock testing, safety impact testing, side-impact testing	Vibration/shock monitoring, shock testing, safety impact testing, side-impact testing	In-dummy crash and impact testing.	In-dummy crash and impact testing.	On-vehicle crash and impact testing, vibration and shock monitoring.

DC Accelerometers

Plug and Play, Unamplified

Uses piezoresistive MEMS technology with high over-range protection and application-specific packaging.

						
Package	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Anodized Aluminum
Type	Stud Mount	Screw Mount	Adhesive/Screw Mount	Screw Mount	Stud Mount	Screw Mount
F.S.Range (g)	±2, 10, 20, 50, 100, 200, 500, 2000	±50, 200, 500, 2000, 6000	±5 through 2500	±5 through 5000	±5 through 5000	±50, 100, 250, 500, 1000, 2000
Unique Features	<ul style="list-style-type: none"> - Hermetically sealed sensor - Gas damping - 10,000g over-range protection 	<ul style="list-style-type: none"> - No zero shift - mV output - 20,000g over-range protection 	<ul style="list-style-type: none"> - Sub-Miniature - Lightweight - 10,000 g over-range protection 	<ul style="list-style-type: none"> - Rugged housing - Critically damped - 10,000 g over-range protection 	<ul style="list-style-type: none"> - Rugged housing - Critically damped - 10,000 g over-range protection 	<ul style="list-style-type: none"> - Critically damped - Compact - Mechanical stops
Accuracy	±0.5% Non-linearity	±2.0% Non-linearity	±1.0 % Non-linearity	±1.0 % Non-linearity	±1.0 % Non-linearity	±1.0 % Non-linearity
Operating Temp	-54°C to 121°C	-54°C to 121°C	-40°C to 120°C	-40°C to 120°C	-40°C to 120°C	-20°C to 80°C
Dimensions (mm)	15.88 x 15.24	14.22 x 8.13 x 3.81	6.86 x 3.56 x 3.56	19.05 x 19.05 x 7.62	12.7 x 12.7 x 15.24	14.73 x 9.9 x 4.83
Typical Apps	Impact testing, structural testing, test and instrumentation, environmental testing	Impact and shock testing, structural testing, drop testing, aerospace testing	Flight test & control, launch, crash, impact testing, robotics	General purpose, machine control, destructive testing, engine testing	General purpose, machine control, destructive testing, engine testing	Auto safety testing for side impact, on-vehicle, sled and in-dummy

MEMS DC Accelerometers

Plug and Play, Amplified

Uses piezoresistive MEMS technology with digital temperature compensation.



201

Package Anodized Aluminum
Type Screw Mount

F.S.Range (g) ±2, 5, 10, 20, 30, 50

Unique Features

- Low noise
- Low current consumption
- 2 Pole electronic filtering

Accuracy ±1.0% Non-linearity

Excitation Voltage 5-30 Vdc

Operating Temp -40°C to 125°C

Dimensions (mm) 25.4 x 21.59 x 9.65

Typical Apps Motorsports, seismic, wind turbine



4000A/4001A

Package Anodized Aluminum
Type Screw Mount

F.S.Range (g) ±2, 5, 10, 20, 50, 100, 200

Unique Features

- Integral connector
- Gas damping
- Low power

Accuracy ±0.5% Non-linearity

Excitation Voltage 8-32 Vdc

Operating Temp -20°C to 85°C

Dimensions (mm) 18.54 x 18.54 x 8.64

Typical Apps Low frequency monitoring, transportation, vibration monitoring, motion control



4600/4602

Package Anodized Aluminum
Type Screw Mount

F.S.Range (g) ±2, 10, 30, 50, 100, 200, 500

Unique Features

- Exceptional temperature compensation
- High over-range protection
- Hermetically sealed sensor

Accuracy ±0.5% Non-linearity

Excitation Voltage 8-36 Vdc

Operating Temp -55°C to 125°C

Dimensions (mm) 21.08 x 21.59 x 7.62

Typical Apps Flight testing, flutter testing, road test, transportation, structural testing, weapons development



4610

Package Anodized Aluminum
Type Screw Mount

F.S.Range (g) ±2, 5, 10, 20, 50, 100, 200, 500

Unique Features

- Advanced temperature compensation
- Signal conditioned
- 10,000 g over-range protection

Accuracy ±0.5% Non-linearity

Excitation Voltage 8-36 Vdc

Operating Temp -40°C to 115°C

Dimensions (mm) 21.59 x 25.4 x 7.62

Typical Apps Tilt, transportation, motion control, modal analysis, flight testing, flutter testing, road test, structural testing



4801A

Package Stainless Steel
Type Stud Mount

F.S.Range (g) ±2, 10, 20, 50, 100, 200, 500, 2000

Unique Features

- Hermetically sealed sensor
- Integral connector
- Signal conditioned

Accuracy ±0.5% Non-linearity

Excitation Voltage 8-36 Vdc

Operating Temp -55°C to 125°C

Dimensions (mm) 13.33 x 20.83

Typical Apps Impact testing, structural testing, test and instrumentation, environmental testing



4810A

Package Stainless Steel
Type Screw Mount

F.S.Range (g) ±2, 5, 10, 20, 30, 50, 100, 200, 500

Unique Features

- Low noise
- Hermetically sealed
- Detachable cable

Accuracy ±0.5% Non-linearity

Excitation Voltage 8-36 Vdc

Operating Temp -55°C to 125°C

Dimensions (mm) 29.21 x 25.4 x 21.08

Typical Apps Flight testing, trains, machine control

DC Accelerometers

Plug and Play, Triaxial

Uses piezoresistive technology.



EGAXT3

Package Stainless Steel
Type Stud Mount

F.S.Range (g) ±5 through 2500

Unique Features

- Sub-miniature
- Lightweight
- 10,000 g over-range protection

Accuracy ±1% Non-linearity

Operating Temp -40°C to 120°C

Dimensions (mm) 12.7 x 12.7 x 12.7

Typical Apps Flight test, crash, shock monitoring



53/53A

Package Anodized Aluminum
Type Adhesive Mount

F.S.Range (g) ±50, 200, 500, 2000

Unique Features

- Low cost
- Gas damping
- Low power

Accuracy ±1.0% Non-linearity

Operating Temp -20°C to 85°C

Dimensions (mm) 18.29 x 13.21 x 7.11

Typical Apps Auto safety, passenger comfort, transportation, NVH analysis



63/68CM1

Package Stainless Steel
Type Screw Mount

F.S.Range (g) ±500, 1000, 2000

Unique Features

- World SID (68CM1)
- Gas damping
- Low power

Accuracy ±1.0% Non-linearity

Operating Temp -20°C to 85°C

Dimensions (mm) 12.7 x 12.7 x 12.7

Typical Apps Auto safety, in-dummy crash, on-vehicle crash



4630

Package Anodized Aluminum
Type Screw Mount

F.S.Range (g) ±2, 5, 10, 20, 50, 100, 200, 500

Unique Features

- Advanced temperature compensation
- Amplified output
- 8-36Vdc excitation

Accuracy ±0.5% Non-linearity

Operating Temp -40°C to 115°C

Dimensions (mm) 26.16 x 26.16 x 23.37

Typical Apps Road test, motion control, transportation, modal analysis, structural testing



4203

Package Anodized Aluminum
Type Screw Mount

F.S.Range (g) ±6, 7.5, 10, 20, 30

Unique Features

- EMI/RFI Protection
- Custom 8-Pole LP Filters
- Temperature Compensation

Accuracy ±1% Non-linearity

Operating Temp -40°C to 125°C

Dimensions (mm) 33.02 x 35.05 x 16

Typical Apps Motorsports, seismic, shock monitoring



606M1

Package Nitrile Rubber Pad
Type Removable

F.S.Range (g) ±25

Unique Features

- 0.7 Damping ratio
- Triaxial, hermetic
- Seat pad accelerometer

Accuracy ±1% Non-linearity

Operating Temp -20°C to 85°C

Dimensions (mm) 199 x 4

Typical Apps Off-road equipment, amusement rides, commercial aircraft