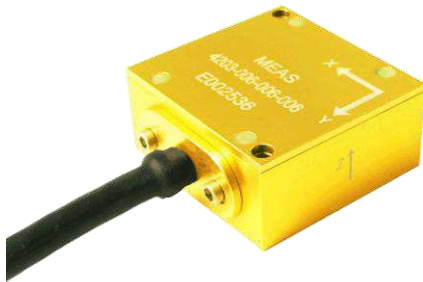
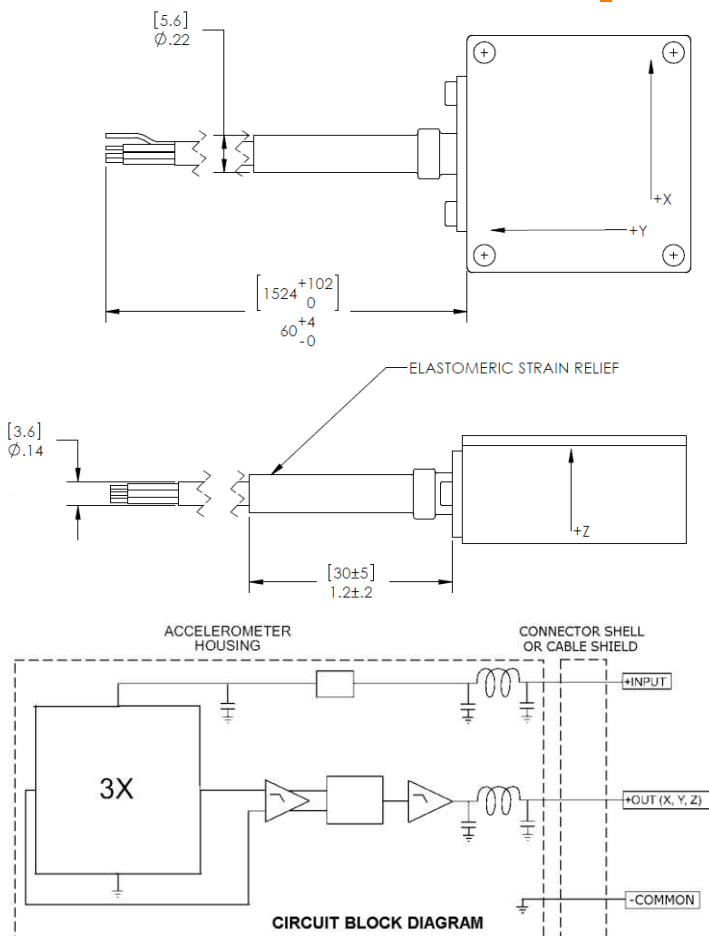


MODEL 4203 ACCELEROMETER



DIMENSIONS



SPECIFICATIONS

- ◆ **Triaxial Motorsport Accelerometer**
- ◆ **Critically Gas Damped**
- ◆ **Temperature Compensation**
- ◆ **EMI/RFI Protection**
- ◆ **Custom 8-Pole LP Filters**

The **Model 4203** is a triaxial motorsport accelerometer designed for harsh installations. The rugged, gas damped accelerometer is ideally tailored for motorsport applications and road vehicle testing. The model 4203 features an 8-pole low-pass filter to ensure no high frequency engine noise will leak into the passband. A heavy-duty shielded cable and an EMI/RFI module protects the accelerometer from the harsh operating environment. Available in ranges from $\pm 6g$ to $\pm 50g$, the model 4203 will provide reliable measurements from -40°C to $+125^{\circ}\text{C}$.

FEATURES

- ◆ 8-16 Vdc Excitation
- ◆ Ranges up to ± 50 g's full scale
- ◆ Measures static & dynamic acceleration
- ◆ Over shock protection to $\pm 5,000$ g's
- ◆ Operating range from -40 to $+125^{\circ}\text{C}$
- ◆ Built-in 8-pole low-pass filter
- ◆ EMI/RFI protection

APPLICATIONS

- ◆ Motorsport Racing
- ◆ Engine Testing
- ◆ Road Vehicle Testing
- ◆ Formula One
- ◆ Indy Racing League

PERFORMANCE SPECIFICATIONS

All values are typical at +24°C, 80Hz and 12Vdc excitation unless otherwise stated. Measurement Specialties reserves the right to update and change these specifications without notice.

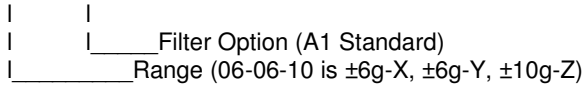
Parameters								Notes	
DYNAMIC									
Range (g)	±6	±7.5	±10	±20	±30	±50			
Sensitivity (mV/g)	333	267	200	100	67	40		±10%	
-3dB Cutoff Frequency (Hz)	100 ±15	100 ±15	100 ±15	100 ±15	100 ±15	100 ±15		See alternate options below	
Rolloff Above Cutoff Frequency (dB/dec)	-160	-160	-160	-160	-160	-160			
Non-Linearity (%FSO)	±1.0	±1.0	±1.0	±1.0	±1.0	±1.0			
Transverse Sensitivity (%)	<3	<3	<3	<3	<3	<3		<1.5% Option	
Damping Ratio	0.7	0.7	0.7	0.7	0.7	0.7			
Shock Limit (g)	5000	5000	5000	5000	5000	5000			
Resolution (mg RMS)	0.5	0.5	0.5	1.0	1.0	3.0		Passband	
ELECTRICAL									
Zero Acceleration Output (V)	2.50 ±0.10							Single-ended	
Excitation Voltage (Vdc)	8 to 16								
Excitation Current (mA)	<30								
Full Scale Output Voltage Swing (Vdc)	0.5 to 4.5								
Output Resistance (Ω)	<100								
Insulation Resistance (MΩ)	>100							@100Vdc	
Turn On Time (msec)	<100								
Ground Isolation	Isolated from Mounting Surface								
ENVIRONMENTAL									
Thermal Zero Shift (%FSO/°C)	±0.012								
Thermal Sensitivity Shift (%/°C)	±0.020								
Operating Temperature (°C)	-40 to +125								
Storage Temperature (°C)	-40 to +125								
Humidity	Epoxy Encapsulated, IP65								
PHYSICAL									
Case Material	Anodized Aluminum								
Cable	5x #24 AWG Conductors, ETFE Insulated, Braided Shield, Crosslinked ETFE Jacket								
Weight (grams)	60 (cable not included)								
Mounting	4x #4 or M3 Screws								
Mounting Torque	6 lb-in (0.7 N-m)								
Calibration supplied:	CS-LFREQ-0010		NIST Traceable Amplitude Calibration from 1Hz to 100Hz						
Optional accessories:	121		3-Channel Precision Low Noise DC Amplifier						

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ORDERING INFORMATION

PART NUMBERING Model Number+Range+Filter Option

4203-XX-YY-ZZ-WW-C



Dash Number	Filter Cutoff Frequency
-A1	60 Hz
-A2	40 Hz
-A4	47 Hz
-A5	80 Hz
-A6	50 Hz
-A7	100 Hz

Example: 4203-06-06-10-A1-C
Model 4203, 6g X-axis, 6g Y-axis, 10g Z-axis, 60Hz Low-pass Filter

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