

Model EGCS-S425 Accelerometer

Range ± 50 to $\pm 2000g$
 Fluid Damped
 Internally Compensated
 ISO 6487 Compliant

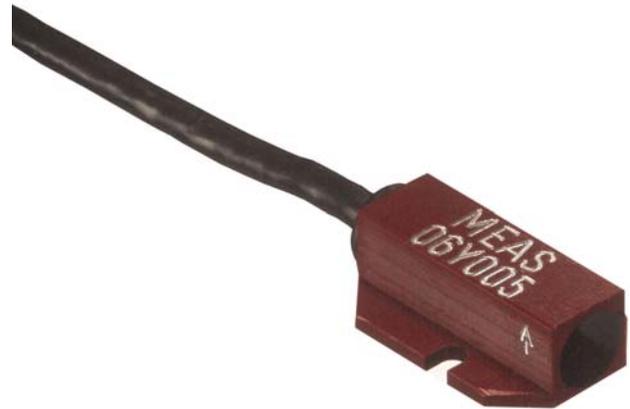
The **Model EGCS-S425** is a small, ISO 6487 and SAE J211 compliant piezoresistive accelerometer. This unit features internal temperature compensation, anodized aluminum alloy housing and flexible cable output. This sensing element is damped with fluid to extend useful frequency range and reduce the effect of high frequencies.

FEATURES

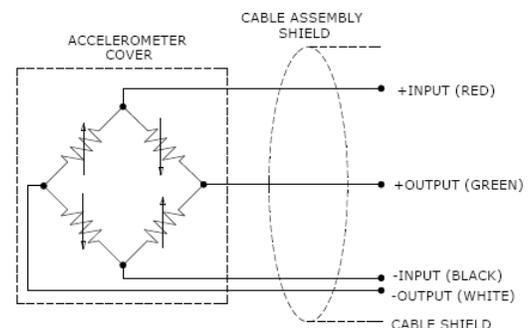
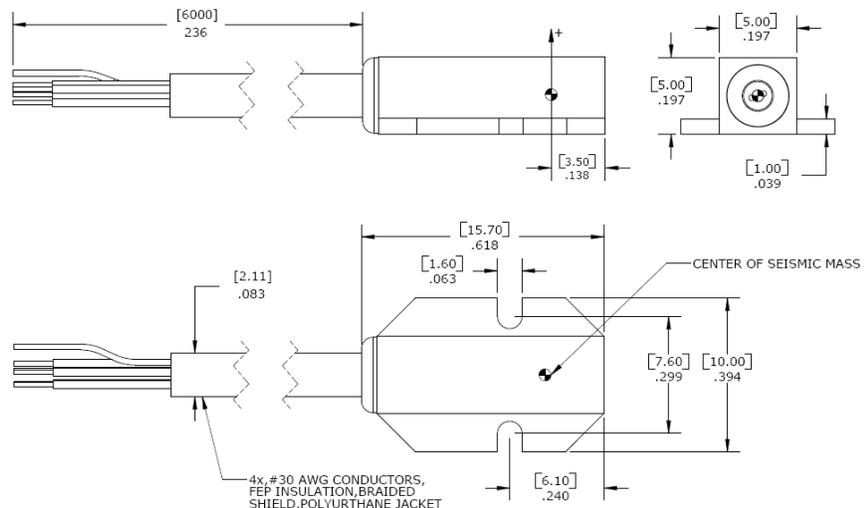
- Fluid Damping
- Ranges from $\pm 50g$ to $\pm 2000g$
- Flexible Cable
- -20°C to $+80^{\circ}\text{C}$ Temperature Range
- Built-in mechanical stops
- Low zero offset $< \pm 10$ mV
- Internal Temperature Compensation
- 10Vdc Excitation with $\pm 150\text{mV}$ Output

APPLICATIONS

- Auto Safety Testing
 - Crash
 - Sled
 - Dummy



dimensions



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performance specifications

All values are typical at $\pm 24^{\circ}\text{C}$, 100 Hz and 10Vdc excitation unless otherwise stated. Measurement Specialties reserves the right to update and change these specifications without notice. Standard product parameters are described in PSC-1004 for Plug & Play DC Accelerometers.

RANGES AND OUTPUTS:

g range "FS"	g overrange limit	Attenuation Fh	Attenuation Fn	Attenuation 2Fh	Full Scale Output (mV / FSO)			Natural Frequency Min.
		At 180 Hz	At 300 Hz	At 360 Hz	Nom.	Min.	Max.	Min.
± 50	± 5000	$\pm 0.5\text{dB}$	$+0.5\text{dB} / -2\text{dB}$	$+0.5\text{dB} / -4\text{dB}$	± 150	± 100	± 225	1 kHz
± 100	± 5000	At 600 Hz	At 1000 Hz	At 1200 Hz	± 150	± 100	± 225	1.5 kHz
		$\pm 0.5\text{dB}$	$+0.5\text{dB} / -2\text{dB}$	$+0.5\text{dB} / -4\text{dB}$				
± 250	± 10000	$\pm 0.5\text{dB}$	$+0.5\text{dB} / -2\text{dB}$	$+0.5\text{dB} / -4\text{dB}$	± 150	± 100	± 225	2.5 kHz
± 500	± 10000	$\pm 0.5\text{dB}$	$+0.5\text{dB} / -2\text{dB}$	$+0.5\text{dB} / -4\text{dB}$	± 150	± 100	± 225	4.5 kHz
± 1000	± 10000	$\pm 0.5\text{dB}$	$+0.5\text{dB} / -1\text{dB}$	$+0.5\text{dB} / -2\text{dB}$	± 150	± 100	± 225	6 kHz
± 2000	± 10000	$\pm 0.5\text{dB}$	$+0.5\text{dB} / -0.5\text{dB}$	$+0.5\text{dB} / -1\text{dB}$	± 150	± 100	± 225	10 kHz

Parameter	Value	Unit	Notes
DYNAMIC			
Full Scale Output	± 150	mV	
Non-Linearity and Hysteresis	$< \pm 1$	%FSO	
Transverse Sensitivity	1	%	Nominal
Zero Acceleration Output	± 10	mV	
Thermal Zero Shift (TZS)	± 3	mV	
Thermal Sensitivity Shift (TSS)	$< \pm 0.1$	% / $^{\circ}\text{C}$	
Damping Ratio	0.7		Nominal
ELECTRICAL			
Voltage Excitation	10	Vdc	Alternate excitations available
Input Resistance	2000	Ω	Nominal
Output Resistance	1000	Ω	Nominal
PHYSICAL			
Weight Without Cable	< 5	Grams	Standard cable length = 6 meters
Case Material			Anodized aluminum
Cable	4x #30 AWG, Teflon Insulated, Braided Shield, TPU Jacket		
ENVIRONMENTAL			
Operating Temperature	-20 to +80	$^{\circ}\text{C}$	
Compensated Temperature Range	-10 to +50	$^{\circ}\text{C}$	
Humidity			Epoxy sealed

