

# Model EGCS-S425 Accelerometer

Range 50 to 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.

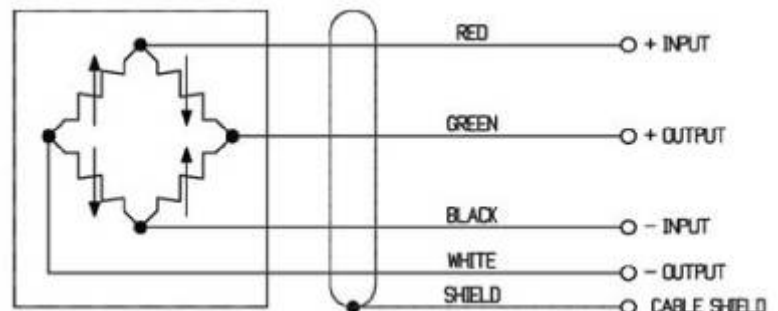
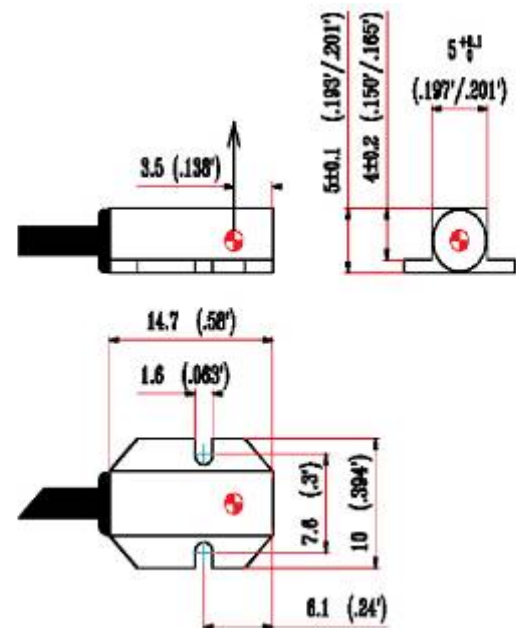
## FEATURES

- Fluid damping
- Ranges from 50 g to 2000 g
- Flexible Cable
- 20°C to +80°C operating temperature range
- Built-in mechanical stops
- 10 Vdc excitation with nominal  $\pm 150$  mV output
- Low zero offset  $< \pm 10$  mV
- Internal temperature compensation

## APPLICATIONS

- Auto Safety Testing
  - Crash
  - Sled
  - Dummy

## dimensions



# Model EGCS-S425 Accelerometer

## performance specifications

### 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	±0.5dB	+0.5dB / -2dB	+0.5dB / -4dB	±150	±100	±225	1 kHz
±100	±5000	At 600 Hz	At 1000 Hz	At 1200 Hz	±150	±100	±225	1.5 kHz
		±0.5dB	+0.5dB / -2dB	+0.5dB / -4dB				
±250	±10000	At 1000 Hz	At 1650 Hz	At 2000 Hz	±150	±100	±225	2.5 kHz
		±0.5dB	+0.5dB / -2dB	+0.5dB / -4dB				
±500	±10000	±0.5dB	+0.5dB / -2dB	+0.5dB / -4dB	±150	±100	±225	4.5 kHz
±1000	±10000	±0.5dB	+0.5dB / -1dB	+0.5dB / -2dB	±150	±100	±225	6 kHz
±2000	±10000	±0.5dB	+0.5dB / -0.5dB	+0.5dB / -1dB	±150	±100	±225	10 kHz

All values are typical at +21 °C and 10 Vdc excitation. Measurement Specialties, Inc. reserves the right to update and change these specifications without notice. Standard product parameters are described in PSC-1004 for Plug & Play DC Accelerometers.

Parameter	Value	Unit	Notes
<b>DYNAMIC</b>			
Full Scale Output	±150	mV	
Non-Linearity and Hysteresis	< ±1	%FSO	
Transverse Sensitivity	1	%	Nominal
Zero Acceleration Output	±10	mV	
Compensated Temperature Range	-10 to +50	°C	
Thermal Zero Shift (TZS)	±3	mV	
Thermal Sensitivity Shift (TSS)	< ±0.1	% / °C	
Damping Ratio	0.7		Nominal
<b>ELECTRICAL</b>			
Voltage Excitation	10	Vdc	Alternate excitations available
Input Resistance	2000	Ω	Nominal
Output Resistance	1000	Ω	Nominal
<b>PHYSICAL</b>			
Weight Without Cable	< 5	Grams	Standard cable length = 6 meters
Case Material			Anodized aluminum
<b>ENVIRONMENTAL</b>			
Operating Temperature	-20 to +80	°C	

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## performance specifications

### Options and Accessories

EXCITATION VOLTAGE:	V*	= Non-standard Excitation contract Entran
CABLE LENGTH:	STANDARD	= 6m
	L00M	= Replace "00" with total length in meters
CALIBRATION SHUNT:	RCALX00	= Replace "00" with value of % Range (ex RCAL50 → 50% FS)
CONNECTOR ASSEMBLY ON CABLE:		consult factory
IDENTIFICATION MODULE:		consult factory

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### ordering info

**EGCS** - **S425** - **500** - **/L2M/V5**  
 Series      Specification number      Range      Options  
 L00M, V5, CD7A