



DIMENSIONS





MODEL EGCS-S425 ACCELEROMETER

SPECIFICATIONS

- Range ±50 to ±2000g
- Critically 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 ±50g to ±2000g
- Flexible Cable
- -20°C to +80°C Temperature Range
- Built-in mechanical stops
- Low zero offset <±10 mV
- Internal Temperature Compensation
- 10Vdc Excitation with ±150mV Output

APPLICATIONS

- Auto Safety Testing
 - Crash
 - Sled
 - Dummy
- Pedestrian Impact
- Dummy Head Impact

PERFORMANCE SPECIFICATIONS

All values are typical at ± 24 °C, 100Hz 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 over- range limit	Attenuation Fh	Attenuation Fn	Attenuation 2Fh	Natural Frequency Minimum
		At 180 Hz	At 300 Hz	At 360 Hz	Min.
±50	±5000	±0.5dB	+0.5dB / -2dB	+0.5dB / -4dB	1 kHz
		At 600 Hz	At 1000 Hz	At 1200 Hz	
±100	±5000	±0.5dB	+0.5dB / -2dB	+0.5dB / -4dB	1.5 kHz
		At 1000 Hz	At 1650 Hz	At 2000 Hz	
±250	±10000	±0.5dB	+0.5dB / -2dB	+0.5dB / -4dB	2.5 kHz
		At 1200 Hz	At 2000 Hz	At 4000 Hz	
±500	±10000	±0.2dB	+0.2dB / -1dB	<+0.35dB	4.5 kHz
±1000	±10000	±0.2dB	+0.2dB / -1dB	<+0.35dB	6 kHz
±2000	±10000	±0.2dB	+0.2dB / -1dB	<+0.35dB	10 kHz

DYNAMIC	Value	Unit	Notes	
Full Scale Output	±150	mV	Nominal (Min ±100, Max ±225)	
Non-Linearity and Hysteresis	< ±1	%FSO		
Transverse Sensitivity	1	%	Nominal	
Zero Acceleration Output	±10	mV		
Thermal Zero Shift (TZS)	±3	mV		
Thermal Sensitivity Shift (TSS)	< ±0.1	% / ºC		
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,	4x #30 AWG, FEP Insulated, Braided Shield, TPU Jacket		
ENVIRONMENTAL				
Operating Temperature	-20 to +80	°C		

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MODEL EGCS-S425 ACCELEROMETER

Compensated Temperature Ran Humidity OPTIONS AND ACCESSORIE	0		-10 to +50	δC	Epoxy sealed, IP61
Calibration supplied:	CS-FREC	Q-0100	NIST Traceable	Amplitude C	Calibration
Optional accessories: AC-A04208		Triaxial Mounting Block			
121		3-Channel Precision Low Noise DC Amplifier			
140		Auto-zero Inline Amplifier			

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ORDERING INFORMATION

EGCS – S425 – 100 – /Z1/L2M/C I IOptions, otherwise leave blank	Excitation Voltage:	Standard = 10Vdc V* = Non standard,
contact factory I Range (100 is 100g) with length in meter	Special Cable Length:	L00M = Replace "00"
5	Connector Wired to Cable: Dallas ID Module: Shunt Calibration:	Contact Factory Contact Factory RCAL00 = Replace "00"
with value of % Range 50% FS)		(ex. RCAL50;

Example: EGCS-S425-2000-/L2M Model EGCS-S425, 2000g Range, 2 Meter Cable Length