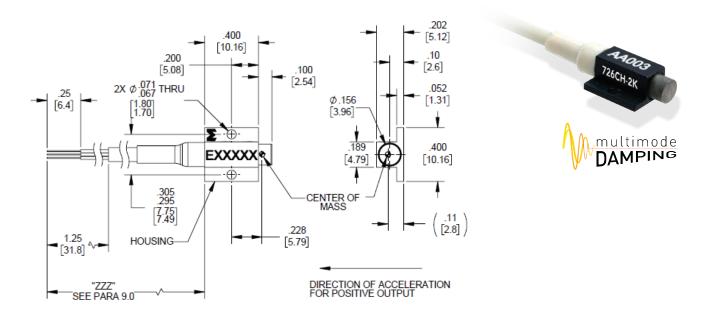


# Piezoresistive accelerometer

## Model 726CH



### **Key features**

- High sensitivity 600mV FSO
- Multi-mode damping
- DC response and wide bandwidth
- Mechanical stops
- In-dummy application
- SAE J211/J2570 compliant

#### **Description**

Model 726CH is a very low mass accelerometer weighing only 1.4 grams. This accelerometer is designed for automotive safety testing applications that require, broad frequency response, and minimum zero shift following the event. Model 726CH utilizes a unique and advanced micro-machined piezoresistive sensor, which includes multi-mode damping for exceptional bandwidth with no significant resonance response in the usable range. This monolithic sensor incorporates the latest MEMS technology for ruggedness, stability and reliability over previous designs. With a frequency response extending down to dc (steady state acceleration), this accelerometer is ideal for measuring long duration transient shocks.

726CH has a full scale range of 2000 g and gas damping. It is available with less than 1% transverse sensitivity and less than  $\pm$  25 mV Zero Measurand Output as the "TZ" option. 726CH comes standard with calibration data for 2V, 5V and 10V excitation. US patent 6,988,412 applies.



### Piezoresistive accelerometer | Model 726CH

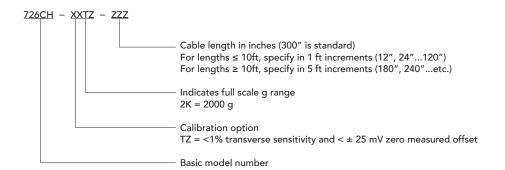
All specifications are referenced at  $+75^{\circ}F$  ( $+24^{\circ}C$ ) and 10 Vdc, unless otherwise noted. Sensitivity and zero measureand offset are provided at 2V, 5V and 10V excitation. Calibration data, traceable to National Institute of Standards and Technology (NIST), is supplied.

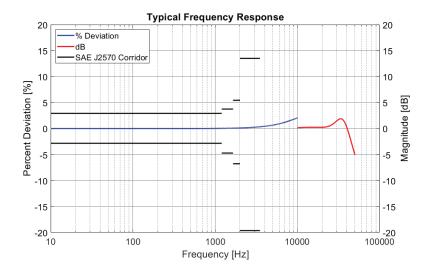
Dynamic characteristics	Units	-2K
Range	g	± 2000
Sensitivity (at 100Hz and 10g)	-	
Minimum/Nominal/Maximum	mV/V/g	.015 / .030 / .060
Frequency response (Referenced to 100 Hz)	· ·	
± 5% maximum	Hz	0 to 5000
Non-linearity	%	±1
Zero measurand output	mV	±50 maximum, ±25 optional
Transverse sensitivity	% max	3 (1 optional)
Resonance Frequency	Hz	25,000
Thermal zero shift		
0° to 50°C	%FSO/°C	0.04
32° to122°F	%FSO/°C	0.02
Thermal sensitivity shift		
10° to 30°C	%/°C	0.2
50° to 86°F	%/°F	0.1
Electrical characteristics		
Warm-up time	min	2
Excitation	Vdc	2.0, 5.0, 10.0
Resistance	ohms	6,500 +/- 2,000
Insulation resistance	Mohms	100 min @ 50 Vdc
Residual Noise [1]	uV RMS	<10
Physical characteristics		
Case material		Hard anodized aluminum alloy, color black
Electrical connections		Integral 4 conductor, # 32 AWG Teflon insulated leads, shielded with
		white polyurethane jacket.
Mounting torque		2.6 in-lbf (0.29 N.m) recommended/3.0 in-lbf
		(0.34 N.m) maximum
Weight		0.05 oz (1.4 gm); cable 0.1 oz/ft (9 gm/m), typical
Environmental		
Acceleration limits		
Shock (half-sine pulse duration)		10000 g, 80 μsec or longer
Temperature		
Operating		- 40 to +100°C (-40 to +212°F)
Storage		Room temperature
Humidity		IP65

Accessories		
Options	Description	726CH
EHM35	Allen wrench	Included
EHW196	Size-0 flat washers (x2)	Included
EH828	0-8 x3/16 inch socket head cap screw (x2)	Included
7953A	Triaxial mounting block	Optional

#### **Notes**

- 1. Theoretical noise floor measured using a low-noise Op-amp. In practice, noise performance is dominated by the characteristics of the interfacing bridge amplifier.
- 2. Maintain high levels of precision and accuracy using Endevco's factory calibration services. Call Endevco's inside sales force at 866-ENDEVCO for recommended intervals, pricing and turn-around time for these services as well as for quotations on our standard products.
- 3. Model number definition:







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