ORIGINATED	JKN	01-25-19	PERFORMANCE SPECIFICATION ACCELEROMETER (MODEL 726CH-XXTZ-ZZZ) RoHS COMPLIANT	PS726CH	
CHECKED	JKN	02-07-19		PAGE	1 OF 4
APPROVED	JKN	02-07-19		REVISION	A1
				ECN NUMBER	33239
CUSTOMER APPROVAL				DATE	01-17-19

1.0 DESCRIPTION

The ENDEVCO® Model 726CH is a very low mass accelerometer weighing less than 2 grams. This accelerometer is designed for crash testing and similar applications that require minimal mass loading and broad frequency response.

The Model 726CH uses a unique micro-machined, piezoresistive sensor with gas damping. This monolithic sensor incorporates the latest MEMS technology for ruggedness, stability and reliability. The accelerometer has a four active arm, full bridge circuit. Full-scale output is 600 mV nominal with 10 Vdc excitation. With a frequency response extending down to dc (steady state acceleration), this accelerometer is ideal for measuring long duration transient shocks.

The 726CH is a midrange accelerometer with full scale range of 2000 g. Calibrations are provided at 2V, 5V, and 10V excitation.

U.S. Patent 6,988,412 applies.

2.0 CERTIFIED PERFORMANCE

All specifications assume +75°F (+24°C) and 10 Vdc excitation, unless otherwise specified. The following parameters are 100% tested. Calibration data, traceable to the National Institute of Standards and Technology (NIST), are supplied. Sensitivity and zero measurand offset are provided at 2V, 5V and 10V excitation voltages.

		Units	Range Dash Number -2K
2.1	SENSITIVITY (measured at 10g, 100Hz at 2V, 5V and 10V)		
	Minimum/Nominal/Maximum at 10 Vdc	mV/g mv/V/g	.15/.30/.60 .015/.030/.060
2.2	FREQUENCY RESPONSE (Referenced to 100 Hz)		+2.92%/-2.84% 0-1200 Hz +3.75%/-4.72% 1200-1650 Hz ±5% 1650-5000 Hz
	A frequency response plot is supplied with each unit, with linear (percent) scale from 20 Hz to 5000 Hz.		
2.3	ZERO MEASURAND OUTPUT at any excitation voltage Available as TZ option (measured at 2V, 5V and 10V excitation voltages)	mV mV	± 50 maximum ± 25 maximum
2.4	TRANSVERSE SENSITIVITY		
	Maximum	%	3
	Available as TZ option	%	1

		Units	Range Dash Number -2K
3.0	TYPICAL PERFORMANCE CHARACTERISTICS		
	The following parameters are established from testing of sample units, data is not supplied:		
3.1	RANGE	g	± 2000
3.2	NON-LINEARITY	%	1
3.3	THERMAL ZERO SHIFT		
	0° to 50°C	%FSO/°C	0.04
	32° to 122°F	%FSO/°F	0.02
	For short duration tests, autozeroing prior to test is recommended to eliminate this error. For extended duration testing, it is possible to record the temperature and correct the acceleration data in post-processing.		
3.4	THERMAL SENSITIVITY SHIFT		
	0° to 50°C	%/°C	0.2
	32° to 122°F	%/°F	0.1
4.0	ELECTRICAL		
4.1	EXCITATION VOLTAGE	Vdc	2.0, 5.0, 10.0
	MAX. EXCITATION VOLTAGE WITHOUT DAMAGE	Vdc	12.0
	Calibration data is supplied for sensitivity and zero measurand offset at 2V, 5V, and 10V excitation voltages. For maximum accuracy, calibration data for sensitivity should be taken at the same excitation voltage as is used in service, e.g. the sensitivity of the unit at 2.5 Vdc is not exactly ½ of the sensitivity at 5.0 Vdc due to self heating of the gages. Contact factory for alternate calibration options.		
4.2	RESISTANCE		
	Input, minimum	Ω	4500
	Ouput, maximum	Ω	8500
4.3	ISOLATION (leads to case or shield)	MΩ	100 min. at 50 Vdc
5.0	PHYSICAL		
5.1	CASE, MATERIAL	Hard anodized aluminum alloy, color black.	
5.2	CABLE, INTEGRAL	Integral 4 conductor, # 32 AWG Teflon insulated leads, shielded with white polyurethane jacket.	
5.3	MOUNTING/TORQUE	2x #0-80 socket head cap screws 2.6 in-lbf (0.29 N-m) recommended / 3.0 in-lbf (0.34 N-m)	

5.4	WEIGHT (excluding cable)	0.06oz (1.8 gm), cable0.12 oz/ft (11 gm/m), typical

6.0 ENVIRONMENTAL

6.1	TEMPERATURE [2]	
	Operating	- 40°C to + 100°C (- 40°F to + 212°F)
6.2	ACCELERATION LIMITS (sensitive direction)	
	Shock	10000 g
	Minimum haversine shock pulse duration	80 μS

7.0 CALIBRATION DATA

Sensitivity (10 g,100 Hz at 2V, 5V and 10V)
ZMO (at 2V, 5V and 10V)
Frequency Response (20 to 5000 Hz, Ref 100 Hz)
Input and Output Resistance

8.0 ACCESSORIES

8.1	SUPPLIED	
	EH828	Screw, Socket Hd. 0-80 x 3/16, Alloy Steel Blk Oxide, 2X
	EHW196	Size 0Flat Washer, 2X
	EHM35	Allen wrench, 1x
8.2	OPTIONAL	
	136	DC Differential Voltage Amplifier

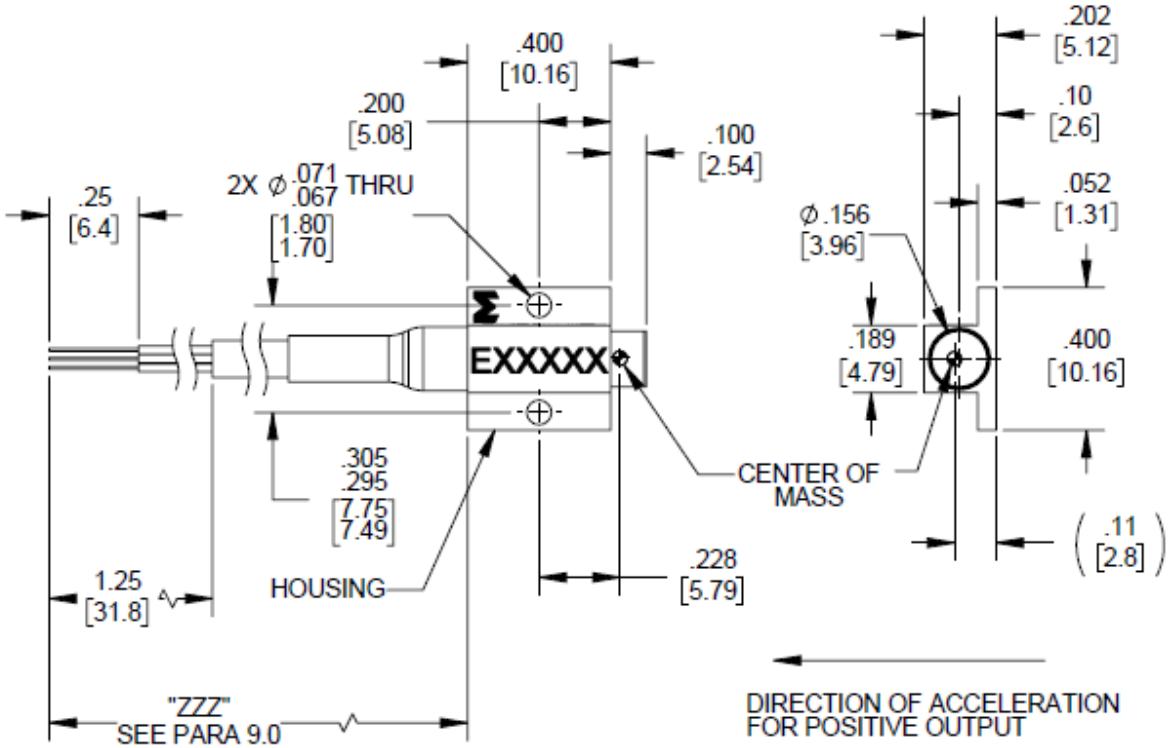
9.0 NOTES

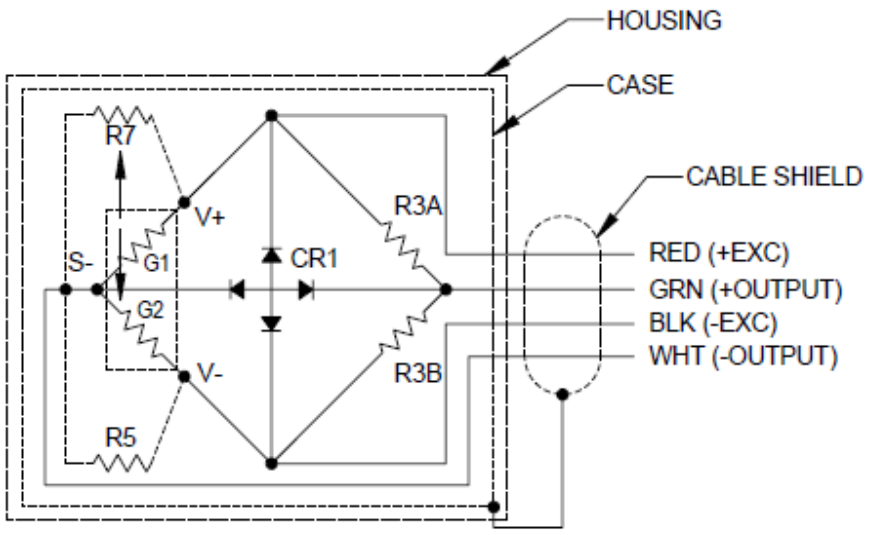
[1] Model Number Definition:

726CH - XX TZ – ZZZ

- ZZZ: Cable length in inches (i.e.726CH-2K-120 has a length of 120 inches)
- TZ: Calibration Option — TZ + <1% transverse Sensitivity and <±25 mV Zero Measurand offset
- XX: Indicates full-scale g range — 2K – 2000 g
- 726CH: Basic Model Number

[2] It is recommended to store Model 726CH at room temperature and atmospheric conditions. Model 726CH can operate during excursions down to -55°C (-67°F) with limited lifetime.





SCHEMATIC

STANDARD TOLERANCE
INCHES [MILLIMETERS]
.XX = ± .02 [.X = ± .5]
.XXX = ± .010 [.XX = ± .25]

SOL