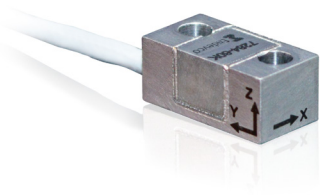
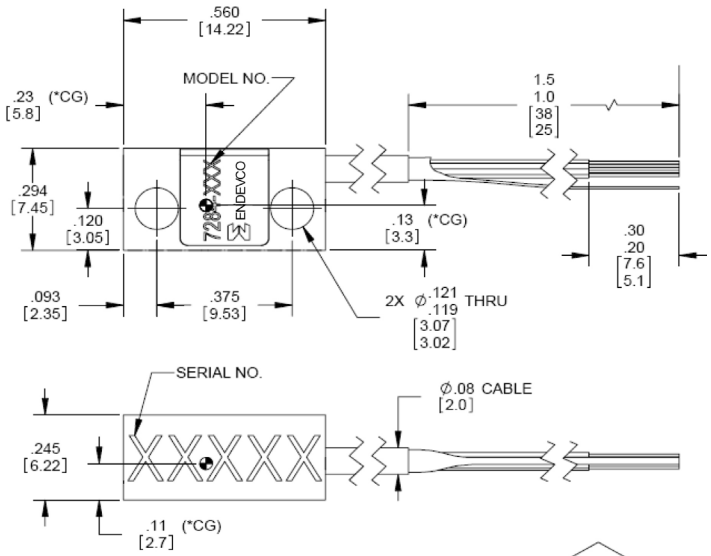
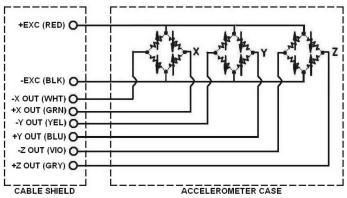
ENDEVCO
AN AMPHENOL COMPANY

Triaxial piezoresistive accelerometer

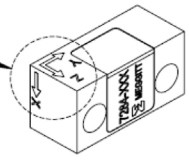
Model 7284







ACCELERATIONS IN THE POSITIVE DIRECTIONS OF THE MARKED COORDINATE SYSTEM WILL GIVE POSITIVE OUTPUTS FOR EACH CORRESPONDING AXIS.



ISOMETRIC VIEW
NOT TO SCALE

*CG = ORIGIN OF MEASUREMENT COORDINATE SYSTEM (i.e. INTERSECTION OF THE 3 AXES)

LENGTH TOLERANCE TABULATION		
LENGTH	ALOWABLE LENGTHS	TOLERANCE
48" < "LLL" <= 120"	1 FT INCREMENTS (48", 60" ... 120")	+4" / -0"
"LLL" > 120"	5 FT INCREMENTS (180", 240", ETC.)	+4" PER 120"

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

The Endevco Model 7284 series is a family of rugged, lightly damped, piezoresistive triaxial accelerometers designed for high-acceleration shock measurements in three mutually perpendicular axes. This family uses three sensors that are packaged in a mutually orthogonal arrangement in a bolt-mount package which shares the same footprint and bolt pattern as Endevco's legacy Model 7270A and 7280A product families. The design boasts a robust eight conductor cable that can repeatedly withstand the high-acceleration shock environment.

The Model 7284 utilizes the same sensing element as the Model 72 & 7280A. Each axis uses a unique micro-machined, piezoresistive sensor with light gas damping to attenuate resonant amplitudes, and mechanical stops to reduce breakage under over load conditions. All three axes have the same range. Selectable ranges per axis are available by special request.

60,000 g ranges are subject to International Traffic in Arms Regulations (ITAR), and as such a license is required for shipments outside the U.S. and other restrictions may apply.

Key features

- 20K and 60K g full scale ranges
- Lightly damped for exceptional survivability
- DC response
- Low power consumption
- Minimal zero shift after shock

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Specifications

All specifications are referenced at +75°F (+24°C) and 5 Vdc, unless otherwise noted. Calibration data, traceable to National Institute of Standards and Technology (NIST), is supplied.

Dynamic characteristics	Units	20K	60K
Linear range	g	20,000	60,000
Sensitivity min/typ [1]	µV/g	4/8	1.25/2.5
Natural frequency (typ)	kHz	100	130
Shock limit (max)	g	60,000	180,000
Zero measureand output (max)	mV/V	+/-20	+/-20
Transverse sensitivity (max)	%	5	5
Thermal zero shift (typ)	% FSO/°C	0.06	0.06
0°F to +150°F (-18°C to +66°C)			
Thermal sensitivity shift (typ)	%/C	-0.2	-0.2
Electrical characteristics			
Excitation	Vdc	5 to 12 (5 standard)	
Resistance			
input	Ω	2200 ± 700	
output	Ω	6500 ± 2000	
Isolation resistance		100 MΩ min at 50 VDC between cable leads and cable shield or case	
Physical characteristics			
Case material		17-4 PH CRES	
Weight (excluding cable)		3.6 grams (0.13 ounces)	
Cable weight		10.2 grams/meter (0.11 ounces/foot)	
Cable		(8) 34 AWG SPC alloy conductors, with SPC braided shield and FEP jacket	
Mounting		4-40 high strength screws (x2)	
Recommended mounting torque		8 ± 2 lbf-in (0.9 N-m)	
Environmental			
Temperature			
Operating	°C (F°)	- 55 to + 121 (- 67 to + 250)	
Storage	°C (F°)	- 55 to + 121 (- 67 to + 250)	
Calibration data		Data for sensitivity, ZMO, input and output resistance are supplied on the calibration certificate. Unless specified by the customer at time of order, the default calibration will be performed at 5 Vdc excitation.	

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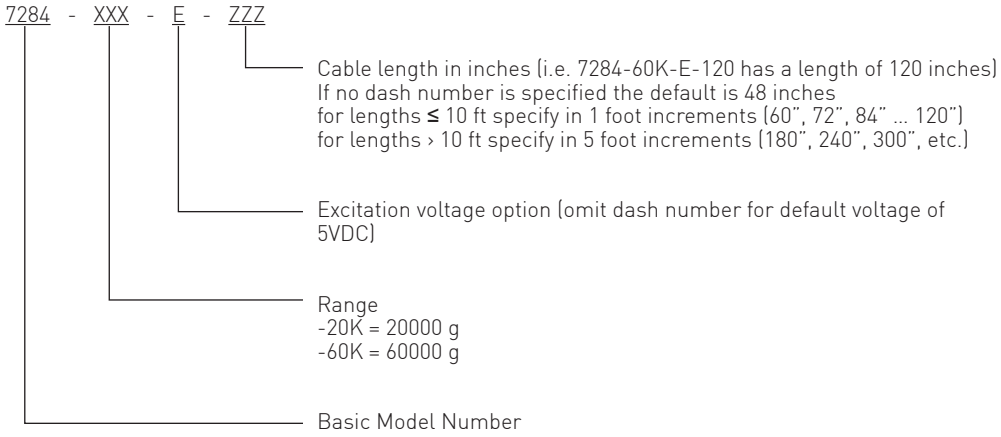
Accessories

Product	Description	7284
EH815	[2] 4-40 high strength screws	Included
EHW265	[2] No. 4 washers	Included

Notes

1. Sensitivity measured at 5,000g.
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 defintion:



Contact

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