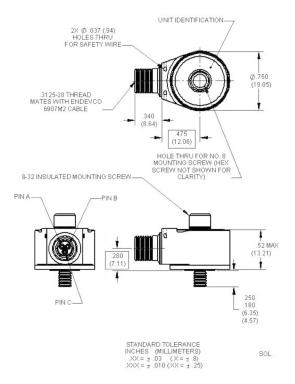


Isotron[®] accelerometer Model 7257AT





Model 7257AT is a small, hermetically sealed piezoelectric accelerometer with integral electronics, designed specifically for measuring vibration on flight test vehicles. This transducer offers the functions of a flight test accelerometer and an airborne charge amplifier in one small package. Its ±2.5V full scale output is biased at +2.5Vdc, which can be interfaced directly with many telemetry systems. There is also a built-in 4-pole Butterworth low-pass filter to provide the necessary out-of-band signal suppression.

The model 7257AT features Endevco's Piezite® type P-8 crystal element, operating in annular shear mode, which exhibits excellent output sensitivitystability over time. The transducer can be powered by any +15 to +32Vdc supply commonly found on most flight vehicles. The unit case is electrically isolated from the mounting surface. Its center through-hole mounting configuration allows 360° cable orientation flexibility. The first suffix after the model number indicates acceleration sensitivity in mV/g, the second suffix indicates the low-pass filter upper corner frequency.

			11	PICAL AMPLITUDE	E RESPONSE	
Six variations are a Model Number 7257AT-010-501	available: mV/g 10	Hz 500				
7257AT-010-202	10	2000	VIATION			\square
7257AT-010-502 7257AT-100-501	10 100	5000 500	% DEV		-202	++
7257AT-100-202 7257AT-100-502	100 100	2000 5000				-502
			1 10	100 FREQUENCY IN	1000 I HERTZ	10

Key features

- Light weight (28 gm)
- Hermetically sealed
- 360° cable orientation
- Ground isolated
- Designed for flight test
- Biased at +2.5Vdc
- Operates from +15 to +32 Vdc
- Built-in 4-pole low pass filter

ENDEVCO www.endevco.com Tel: +1 (866) ENDEVCO [+1 (866) 363-3826]

Piezoelectric accelerometers | Piezoresistive accelerometers | IEPE accelerometers | Variable capacitance accelerometers | Piezoresistive pressure sensors | Piezoelectric pressure sensors | High intensity microphones | Inertial sensors | Signal conditioners and supportive instrumentation | Cable assemblies



Isotron[®] accelerometer Model 7257AT

Specifications

The following performance specifications conform to ISA-RP-37.2 (1964) and are typical values, referenced at +75°F (+24°C) and 100 Hz, unless otherwise noted. Calibration data, traceable to National Institute of Standards and Technology (NIST), is supplied.

Wationat institute of Standards and Technology (WST),	s supplied.			
Dynamic characteristics	Units	-10	-100	
Range	g	±250	±25	
Voltage sensitivity	mV/g	10	100	
Amplitude response				
±1 dB	Hz	0.4 to 10 000	1.5 to 6000	
±3 dB	Hz	0.2 to 10 000	0.7 to 10 000	
Phase response, ±5°	Hz	3 to 1500	10 to 1500	
Frequency response	112	See typical response	10 10 1000	
Resonance Frequency		40		
Amplitude Response	Hz 2 to 500 or 5000			
Temperature response	+5 to - 15 over -55 to +100			
Transverse sensitivity	%			
,	%			
Amplitude linearity	70	1 to full scaleAmplitude non-linea	arity	
Output characteristics				
Output polarity		Acceleration directed into base of unit produce	s positive output	
DC output bias voltage	Vdc	+2.50 ± 0.1	1 1	
Output impedance	Ω	≤ 50		
Full scaleoutput voltage	V	± 2.5		
Residual noise		Typical equiv. g rms .003 (1 Hz to 10 kHz)		
Overload recovery	ms	≤ 10		
Grounding	1113	Signal ground connected to case and		
isolated from mounting surface.	Signal ground connected to case and			
Power requirement				
Supply voltage	Vdc	+15 to +32		
Supply current	mA	<20		
Warm-up time	sec	<10		
To within 10% of final bias				
Environmental characteristics				
Temperature range	°F (°C)	-67 to 212 (-55 to +100)		
Humidity		Hermetic		
Sinusoidal vibration limit	g pk	500		
Shock limit	g pk	1000		
Base strain sensitivity	eq. g pk/µstrain	0.04		
Physical characteristics				
Dimensions		See outline drawing		
Weight	oz (gm)			
Case material	02 (gill)	Stainless steel		
Connector [4]		Mates with model 6907M2 cable		
	lbf-in			
Mounting torque	wi=iii	10 (1.1)		
Calibration				
Supplied				
Sensitivity	mV/g			
Maximum transverse sensitivity	%			
Frequency response	%	20 Hz to 10 kHz		

ENDEVCO www.endevco.com Tel: +1 (866) ENDEVCO [+1 (866) 363-3826]



Isotron[®] accelerometer Model 7257AT

Accessories

Product	Description	7257AT
EHM689	Allen Wrench	Included
29156-3	Isolated Mounting Screw Assy, 8-32	Included
6907M2-XXX	Cable assembly	Optional

Notes

- 1. Model 6907M2 cable is designed specifically for use with Model 7257AT accelerometer. The instrumentation end of the cable is not terminated (pigtail) Specify length when placing order.
- 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.

Contact

ENDEVCO www.endevco.com Tel: +1 (866) ENDEVCO [+1 (866) 363-3826]



Continued product improvement necessitates that Endevco reserve the right to modify these specifications without notice. Endevco maintains a program of constant surveillance over all products to ensure a high level of reliability. This program includes attention to reliability factors during product design, the support of stringent Quality Control requirements, and compulsory corrective action procedures. These measures, together with conservative specifications have made the name Endevco synonymous with reliability. 091819