34206A Accelerometer

±100 g
Superior Zero g Bias Stability
Low Noise – Wide Bandwidth

Triaxial Analog Accelerometers

The Measurement Specialties 34206A triaxial accelerometer offers precision measurements over the entire -40 to +85°C temperature range with superior bias stability and measurement resolution.

A tough, compact housing holds potted electronics and the small size and built-in power regulation allow the 34206A to fit where other accelerometers can't. Choose from various bandwidth options to best suit your application.

The voltage output of the 34206A is directly proportional to the acceleration along the axis. Each DC-coupled output is fully scaled, referenced, and temperature compensated. Users are supplied with a calibration certificate listing sensitivity and offset for each sensor.

The accelerometers have a nominal full scale output swing of ±2.25 volts. The zero g output level is nominally +2.5 volts. Custom versions of the 34206A can be provided.

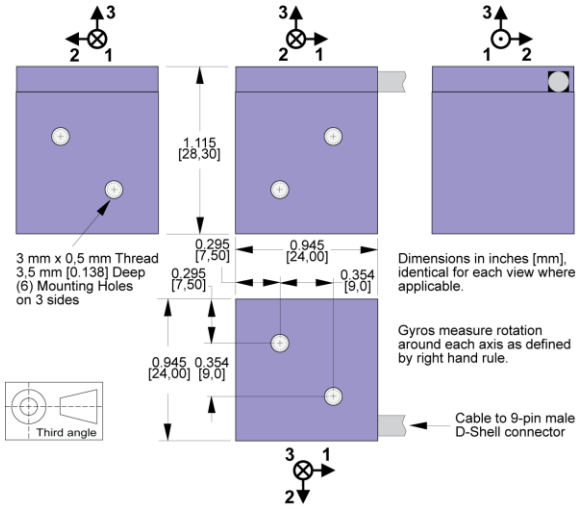
FEATURES

- Superior Zero g Bias Stability
- Low Noise
- Bandwidth to 2.5 kHz
- High Accuracy and Linearity over Wide Temperature Range
- Rugged for Harsh Environments
- NIST Traceable Calibration
- Built-in Power Supply Regulation
- Easy Installation
- Three Year Warranty

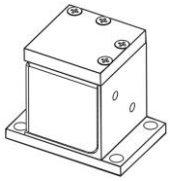
APPLICATIONS

- Vehicle Dynamics
- Construction Equipment
- Research & Development
- Test & Measurement
- Military/Aerospace

dimensions

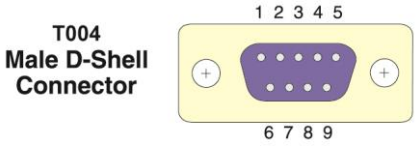


Two 3 mm x 0.5 mm threaded holes are provided on each of three orthogonal faces for mounting



Shown with mounting adapter 34170B (sold separately)

connections



Pin	1	2	3	4	5	6	7	8	9
Signal	A1+	Signal-	A2+	+5 V Out	A3+	T+	N.C.	+Vs	Gnd
Wire	Brown	Red	Orange	Yellow	Green	Blue	Violet	Grey	White

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深圳市亿为测控电子有限公司
Shenzhen Bill-Well Measurement & Control Electronics Co., Ltd.

Performance Specifications

$T_A = T_{min}$ to T_{max} ; $8 \le V_S \le 18$ V; Acceleration = 0 g unless otherwise noted; within one year of calibration. Improved specifications available upon request.

PARAMETERS	Min	Typical	Max	Units	Conditions/Notes
Range: Measurement Full Scale			±100	g	On each axis
Sensitivity					
At 25ºC		20		mV/g	Nom ±100 g. Precise values on cal certificate
Drift Tmin to Tmax			±2.0	%	Percent of sensitivity at 25ºC
Zero g Bias Level					
At 25 ºC		2.5		V	Precise values on cal certificate
Drift to Tmin or Tmax		±80	±200	mg	At 1.25ºC/min. temperature rate of change
Alignment					Precise values on cal certificate
Deviation from Ideal Axes		±0.35	±3.0	degrees	Can be compensated if required
Nonlinearity		±0.25	±1	% FSR	Best fit straight line
Frequency Response	0		2500	Hz	Upper cutoff per Option Bnnn, -3 dB pt ±10%
Noise Density		100		µg/√Hz	T_A = 25ºC
Temperature Sensor					Accuracy ±1 ºC
Sensitivity		6.45		mV/ºC	
0ºC Bias Level		509		mV	
Outputs					
Output Voltage Swing	0.25		4.75	V	I_{OUT} = ±0.5 mA
Capacitive Drive Capability	500			pF	
Power Supply (V_S)					
Input Voltage Operating	+8		+18	V	Will withstand -20 V continuous or 36 V for <1 sec.
Input Current		33	50	mA	No load; quiescent
Rejection Ratio		>120		dB	DC
Temperature Range (T_A)	-40		+85	ºC	
Mass		35		grams	Precise values on cal certificate
Shock Survival	-5000		+5000	g	Any axis for 0.1 ms, powered or unpowered

ordering info

34206A - R100 - B2k5 - T004

Instrument
34206A

Range
R100 : ±100 g

Bandwidth
B2k5 : 0 to 2500 Hz
B2k1 : 0 to 2100 Hz
B1k4 : 0 to 1400 Hz
B944 : 0 to 944 Hz
B380 : 0 to 380 Hz
B208 : 0 to 208 Hz

Termination
T004 : 4 ft. cable with DB9M
T000 : PCB Mount (Not shown, Call SI)
T*nnn* : Custom length, *nnn* ft. (Call SI)