

Preliminary

34206A

SPECIFICATIONS

- ± 100 g Triaxial Accelerometer
- Superior Zero g Bias Stability
- Low Noise - Wide Bandwidth

Precisely Measure Real-World Accelerations

Measurement Specialties' 34206A accelerometer provides the accuracy required by most measurement applications without any compensation. Critical applications requiring higher accuracy can use the alignment data provided on the calibration certificate to compensate for any small residual error.

Choose the bandwidth option best suited for your application to measure ± 100 g accelerations on each of three axes.

Each axial sensor has been tested over the -40 to $+85^{\circ}\text{C}$ temperature range and has a nominal full scale output swing of ± 2.25 volts. The zero g output level is nominally $+2.5$ volts. Precise values for each axis are available on the included calibration certificate

FEATURES AND BENEFITS

High Accuracy and Linearity over Wide Temperature Range

The voltage output for each axis of the 34206A is directly proportional to the acceleration along that axis. Each DC-coupled output is fully scaled, referenced, and temperature compensated over the entire -40 to $+85^{\circ}\text{C}$ temperature range.

Calibration Certificate

Each 34206A is supplied with a calibration certificate listing sensitivity and offset, as well as the on-axis and transverse alignment parameters needed to ensure rapid and efficient system implementation. The alignment data can be used to compensate the measured values to achieve an even higher level of sensor accuracy.

Small Size

Complete conditioned triaxial accelerometer in less than a cubic inch.

-Built-In Power Supply Regulation

Unregulated DC power from $+8$ to $+18$ volts is all that is required to measure accelerations on all axes.



Suitable for Harsh Environments

The 34206A is robust and can be used in harsh environments. The unit will survive 5000 g powered or unpowered.

Warranty

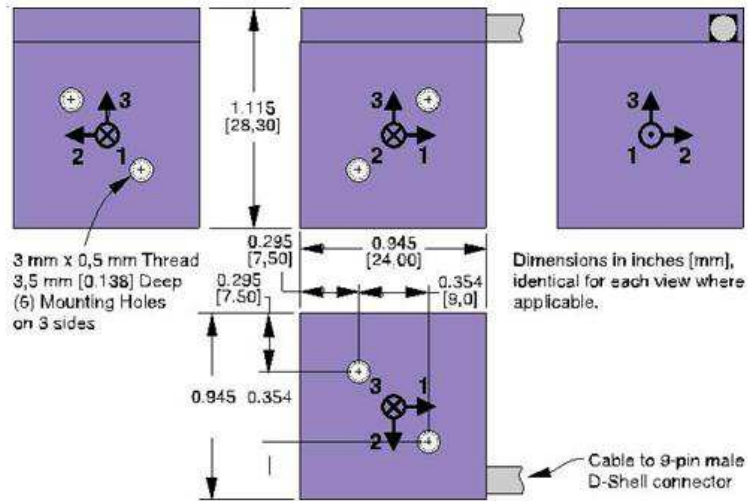
These Measurement Specialties accelerometers come with a three-year factory warranty.

SPECIFICATIONS FOR 34206A - *improved specifications available upon request*

T_a = T_{min} to T_{max}; 8 ≤ V_s ≤ 18 V; Acceleration = 0 g unless otherwise noted; within one year of calibration.

Parameter	Min	Typical	Max	Units	Conditions/Notes
Range Measurement Full Scale			±100	g	On each axis
Sensitivity					
At 25°C		20		mV/g	Nom ±100 g. Precise values on cal certificate
Drift T _{min} to T _{max}			±2.0	%	Percent of sensitivity at 25°C
Zero g Bias Level					
At 25°C		2.5 ±0.010		V	Precise values on cal certificate
Drift T _{min} to T _{max}		±80	±200	mg	At <1.25°C/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 =25°C
Temperature Sensor					Accuracy ±1°C typical
Sensitivity		6.45		mV/°C	
0°C Bias Level		509		mV	
Outputs					
Output Voltage Swing	0.50		4.50	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	°C	
Mass		35		grams	Precise values on cal certificate
Shock Survival	-5000		+5000	g	Any axis for 0.1 ms, powered or unpowered

MECHANICAL

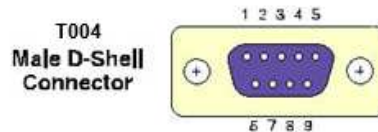


Two 3 mm [24,00] x 0.5 mm threaded holes are provided on each of three orthogonal faces for mounting.



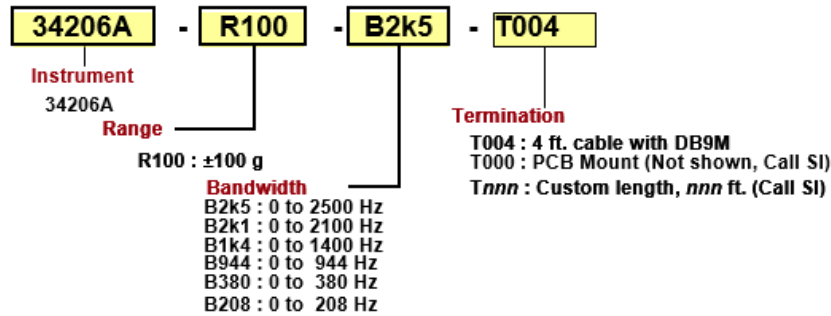
Shown with 34170B mounting adapter (sold separately)

CONNECTIONS



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

ORDERING INFORMATION

**NORTH AMERICA**

Measurement Specialties, Inc.,
a TE Connectivity Company
2236 N. Cleveland-Massillon Road
Akron, OH 44333
USA
Tel: +1-330-659-3312
Sales: pvg.cs.amer@meas-spec.com

EUROPE

MEAS France SAS
a TE Connectivity Company
26 Rue des Dames
F78340 Les Clayes-sous-Bois
France
Tel: +33 (0) 130 79 33 00
Fax: +33(0) 134 81 03 59
Sales: pfg.cs.emea@meas-spec.com

ASIA

Measurement Specialties (China), Ltd.,
a TE Connectivity Company
No. 26 Langshan Road
Shenzhen High-Tech Park (North)
Nanshan District, Shenzhen 518057
China
Tel: +86 755 3330 5088
Fax: +86 755 3330 5099
Sales: pfg.cs.asia@meas-spec.com

TE.com/sensorsolutions

Measurement Specialties, Inc., a TE Connectivity company.

Measurement Specialties, TE Connectivity, TE Connectivity (logo) and EVERY CONNECTION COUNTS are trademarks. All other logos, products and/or company names referred to herein might be trademarks of their respective owners.

The information given herein, including drawings, illustrations and schematics which are intended for illustration purposes only, is believed to be reliable. However, TE Connectivity makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. TE Connectivity's obligations shall only be as set forth in TE Connectivity's Standard Terms and Conditions of Sale for this product and in no case will TE Connectivity be liable for any incidental, indirect or consequential damages arising out of the sale, resale, use or misuse of the product. Users of TE Connectivity products should make their own evaluation to determine the suitability of each such product for the specific application.

© 2015 TE Connectivity Ltd. family of companies All Rights Reserved.