Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

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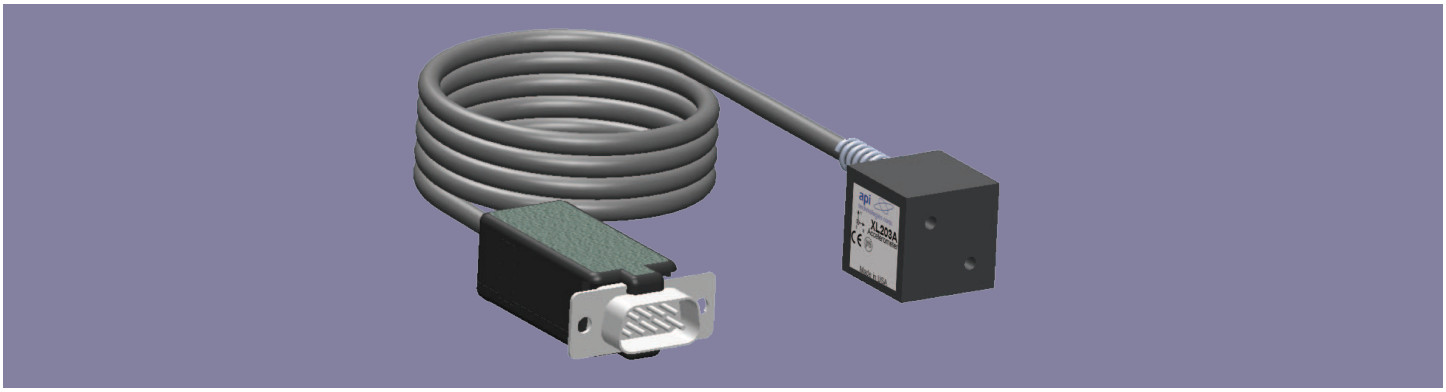
Triaxial Analog Accelerometer

Rugged, Small, ±6 g or ±15 g



- **High Accuracy Acceleration Measurement** - The voltage output of the XL203A is directly proportional to the acceleration along the axes. Each DC-coupled sensor output is fully scaled, referenced, and calibrated.
- **Rugged for Harsh Environments** - The XL203A is robust and can be used in harsh environments. The machined 6061-T6 aluminum case has a black anodized finish per MIL-A-8625, plus the shielded cable has a high-temperature PVC jacket and Teflon-insulated conductors. The unit has resilient power and will survive 5000 g powered and unpowered.
- **Small Size** - Completely conditioned triaxial accelerometer in less than one cubic inch.
- **Built-In Power Supply Regulation** - Unregulated DC power from +8.5 to +36 Volts is all that is required to measure acceleration and temperature.
- **Calibration Certificate -** Each XL203A 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 if needed.
- **Self-Test** - A TTL-compatible self-test input causes a simulated acceleration to be injected into the accelerometer to verify channel integrity and wiring connections.
- **Easy Installation** - Integrated cable with 9-pin connector makes it easy to wire. Four tapped holes simplify mounting, and optional mounting adapters are also available.
- **Earth Friendly Design** - Lead-free design makes the XL203A environmentally safe while API Technologies' assembly process ensures reliable functionality. Fully potted electronics eliminates the possibility of tin whiskers-related failures.
- **Three-Year Warranty** - API Technologies accelerometers come with a three-year factory warranty.

*Technical Data subject to change without notice

The XL203A is ready when you are. In stock and ready to ship, you can be taking measurements in less time than with built-to-order accelerometers.

The small size and built-in power regulation allow the XL203A to fit where other accelerometers can't. Choose bandwidth of 100 Hz or 800 Hz and range options of ±6 g or ±15 g to measure accelerations on three axes.

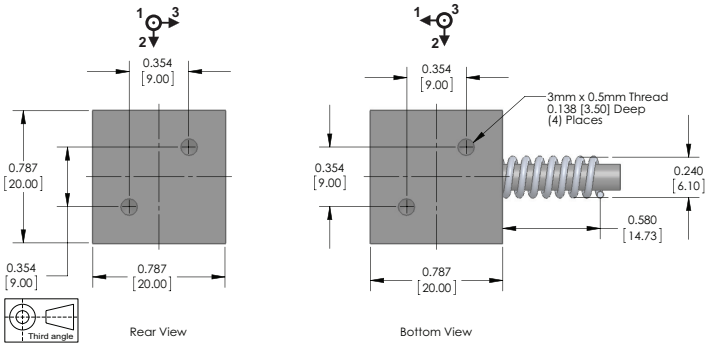
The accelerometers have a nominal full scale output swing of ±2 Volts. The zero g output level is nominally +2.5 Volts. Precise values are available on the included calibration certificate.

Specifications for XL203A - improved specifications available upon request

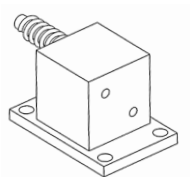
$T_A = T_{MIN}$ to T_{MAX}; $8.5 \le V_S \le 36$ V; Acceleration = 0 g, unless otherwise noted; within one year of calibration.

Parameter	Min	Typical	Max	Units	Conditions/Notes
Range - Measurement Full Scale					
Option R006	-6		+6	g	FSR = 12 g
Option R015	-15		+15	g	FSR = 30 g
Sensitivity					
At 25°C, Option R006		333.3		mV/g	Precise values on calibration certificate
At 25°C, Option R015		133.3		mV/g	Precise values on calibration certificate
Drift T_{MIN} to T_{MAX}		±.01	±.03	%/°C	Percent of sensitivity at 25°C
Zero g Bias Level					
At 25°C		2.500		V	Precise values on calibration certificate
Drift T_{MIN} to T_{MAX}		±1.0	±5.5	mg/°C	At 1.25°C/min. temperature rate of change
Alignment					Precise values on calibration certificate
Deviation from ideal axes		±1.0	±3.0	degrees	Can be compensated if required
Transverse Sensitivity		±2		%	Inherent sensor error, excluding misalignment
Nonlinearity		0.1	0.5	% FSR	Best fit straight line
Frequency Response					Upper cutoff per Option Bnnn, -3 dB pt ±20%
Option B100		100		Hz	
Option B800		800		Hz	
Noise Density		100		µg/√Hz	
Self Test Pull-up Resistor	5			kΩ	Logic "1" ≥ 3.5 V, Logic "0" ≤ 1.5 V, "0" causes self test
Temperature Sensor at 25°C					
Sensitivity		2.5		mV/°C	
25 °C Bias Level		2.5		V	
Outputs					
Output Voltage Swing	0.2		4.8	V	I_{OUT} = ±2.5 mA (exclusive of R_{OUT})
Output Resistance (R_{OUT})		100		Ω	
Capacitive Drive Capability		1000		pF	
Power Supply (V_S)					
Input Voltage Limits	-20		+38	V	
Input Voltage - Operating	+8.5		+36	V	Continuous
Input Current		15	20	mA	
Rejection Ratio		>120		dB	DC
Temperature Range (T_A)	-40		+85	°C	
Mass		20		grams	
Shock Survival	-5000		+5000	g	Any axis for 0.5 ms, powered or unpowered

Mechanical



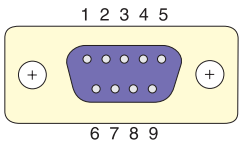
Custom mounting adapters available upon request.



Shown with 34170B Mounting Adapter (sold separately)

Connections

Male D-Shell Connector



Pin	1	2	3	4	5	6	7	8	9
Signal	A1	SigGnd	A2	5 V	A3	T+	ST/Aux	+Vs	Gnd
Wire	Brown	Red	Orange	Yellow	Green	Blue	Violet	Grey	White

Ordering Information

XL203A - R006 - B100 - T004

- **XL203A** — Instrument: XL203A
- **R006** — Range: R006 : ±6 g; R015 : ±15 g
- **B100** — Bandwidth: B100 : 0 to 100 Hz; B800 : 0 to 800 Hz
- **T004** — Termination: T004 : 4 ft. cable with DB9M

Rev. 3/20/2013

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