

# Product Selection Guide



VIP SENSORS offers a broad range of accelerometers, electronic instrumentation, and accessories for the measurement of vibration and shock. The range of accelerometer products include miniature units that weigh one gram, seismic units that resolve less than 50 micro-g's, shock accelerometers that measure up to 50,000 g's, and rugged designs for use in gas turbine engines and rotating machinery. The company strives to provide state-of-the-art, quality products at a very competitive price.

### Accelerometer & Instrumentation Products

The company's product line includes:

- Piezoresistive (PR) Accelerometers – Undamped, voltage output
- Piezoelectric (PE) Accelerometers - high impedance, charge output
- Voltage Mode Accelerometers (IEPE) - low impedance, voltage output
- Signal Conditioners
- Smart Sensors Network Systems
- Portable & Handheld Vibration Calibrators
- Cable Assemblies & Accessories



### Calibration Services

In addition to offering portable calibration products, shock and vibration calibration services are also available for all types of accelerometers. All calibrations performed by Precision Labs.

- Shock & Vibration Calibration Services
- Accelerometers & Accelerometer/Amplifier Systems
- Traceable to NIST (National Institute of Standards & Technology)
- A2LA Accredited to ISO 17025-2005
- Certified to ISO 9001:2000

## Accelerometers

### Piezoresistive Accelerometers










Model		PIEZORESISTIVE ACCELEROMETERS DESCRIPTION
	1500-500	Single Axis, 0.4 to 0.8 mV/g, 500g range, Shock Limit 2,000 g (1 ms), 0 to 3KHz, 0 to + 150 °F, 1 gram
	1500-2000	Single Axis, 0.15 to 0.2 mV/g, 2000g range, Shock Limit 3,500 g (0.2 ms), 0 to 5KHz, 0 to + 150 °F, 1 gram

## Product Selection Guide

# Accelerometers

## Piezoelectric Accelerometers

### High impedance, charge output











Model	PIEZOELECTRIC ACCELEROMETERS DESCRIPTION	
 <b>1006A</b>	Triaxial, 13 pC/g, 17 gm, Shock Limit 2,000 g, 0.5 to 6KHz, - 40 to + 302 F, Grounded, screw mount	
 <b>1010A</b>	Single Axis, 1.2 pC/g, 1.2 gm, Shock Limit 20,000 g, 5 to 20 KHz, -40 to 302 F, Grounded, Adhesive mount	
 <b>1011A</b>	Single Axis, 1.2 pC/g, 1.2 gm, Shock Limit 20,000 g, 5 to 20 KHz, -40 to 302 F, Grounded, Adhesive mount	
 <b>1012A</b>	Single, Axis, 13 pC/g, 5 gm, Shock Limit 2,000 g, 1 – 15 KHz, -40 to 302 F, Grounded, Stud mount	
 <b>1013A</b>	Single Axis, 20 pC/g, 14 gm, Shock Limit 2,000 g, 0.5 to 12 KHz, -4 to 248 F, Grounded, Stud mount	
 <b>1014A</b>	Single Axis, 35 pC/g, 30 gm, Shock Limit 800 g, 0.5 to 8 KHz, -4 to 248 F, Grounded, Stud mount	
 <b>1015A</b>	Single Axis, 25 pC/g 15 gm, Shock Limit 2,000 g, 0.5 to 12 KHz, -4 to 248 F, Grounded, Stud mount	
 <b>1016A</b>	Single Axis, 55 pC/g, 28 gm, Shock Limit 800 g, 0.5 to 6 KHz, -40 to 302 F, Grounded, Stud mount	
 <b>1017A</b>	Single Axis, 2 pC/g, 2.8 gm, Shock Limit 2,000 g, 0.5 to 7 KHz, -40 to 302 F, Grounded, Adhesive mount	
 <b>1018A</b>	Single Axis, 150 pC/g, 38 gm, Shock Limit 600 g, 0.3 to 5 KHz, -40 to 302 F, Grounded, Stud mount	
 <b>1021A</b>	Single Axis, 2 pC/g, 1.4 gm, Shock Limit 5,000 g, 1 to 12 KHz, -40 to 302 F, Grounded, Screw mount	
 <b>1021B</b>	Single Axis, 2 pC/g, 1.4 gm, Shock Limit 5,000 g, 1 to 12 KHz, -40 to 302 F, Grounded, Screw mount	
 <b>1022A</b>	Single Axis, 15 pC/g, 9 gm, Shock Limit 2,000 g, 0.5 to 8 KHz, -40 to 302 F, Grounded, Screw mount	
 <b>1023A</b>	Single Axis, 1.2 pC/g, 35 gm, Shock Limit 1,000 g, 0.5 to 6 KHz, -40 to 302 F, Grounded, Stud mount	
 <b>1100A</b>	Single Axis, 0.3 pC/g, 10 gm, Shock Limit 50,000 g, 2 to 15 KHz, -65 to 482 F, Grounded, Stud mount	
 <b>1300</b>	Single Axis, 50 pC/g, 100 gm, Shock Limit 1,000 g, 5 to 3 KHz, -40 to 482 F, Isolated, Screws (3)	
 <b>1400A</b>	Single Axis, 1,000 pC/g, 100 gm, Shock Limit 200 g, .3 to 2,5 KHz, -40 to 302 F, Grounded, Stud mount	

## Product Selection Guide

### Accelerometers





#### Internal Electronics Piezoelectric (IEPE)

#### Low impedance, voltage output


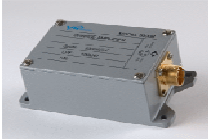


Model		PIEZOELECTRIC ACCELEROMETERS, WITH INTEGRAL ELECTRONICS (IEPE) DESCRIPTION
	<b>2005</b>	Single, 5 mV/g, 14 gm, Range 200 g pk, Shock Limit 1,000 g, 1 to 7 KHz, - 4 to + 248 F, Grounded, Stud mount
	<b>2008A</b>	Single, 1 mV/g, 8 gm, Range 5,000 g pk, Shock Limit 5,000 g, 1 to 6 KHz, - 4 to + 248 F, Grounded, Stud mount
	<b>2009A</b>	Single, 10 mV/g, 14 gm, Range 500 g pk, Shock Limit 1,000 g, 0.5 to 10 KHz, - 4 to + 248 F, Grounded, Stud mount
	<b>2010A</b>	Single, 10 mV/g, 14 gm, Range 500 g pk, Shock Limit 1,000 g, 0.5 to 10 KHz, - 4 to + 248 F, Grounded, Stud mount
	<b>2011A</b>	Single, 20 mV/g, 17 gm, Range 250 g pk, Shock Limit 3,000 g, 0.5 to 8 KHz, - 4 to + 248 F, Grounded, Stud mount
	<b>2012A</b>	Single, 50 mV/g, 26 gm, Range 100 g pk, Shock Limit 1,000 g, 0.3 to 4 KHz, - 4 to + 248 F, Isolated, Stud mount
	<b>2015A</b>	Single, 100 mV/g, 12 gm, Range 50 g pk, Shock Limit 1,000 g, 0.5 to 6 KHz, - 4 to + 248 F, Stud mount
	<b>2016A</b>	Single, 100 mV/g, 10 gm, Range 50 g pk, Shock Limit 1,000 g, 0.5 to 6 KHz, - 4 to + 248 F, Stud mount
	<b>2017AS10</b>	Single, 10 mV/g, 6 gm, Range 500 g pk, Shock Limit 1,000 g, 0.5 to 5 KHz, - 4 to + 248 F, Adhesive mount
	<b>2017AS100</b>	Single, 100 mV/g, 10 gm, Range 50 g pk, Shock Limit 1,000 g, 0.5 to 5 KHz, - 4 to + 248 F, Adhesive mount
	<b>2100A</b>	Triaxial, 10 mV/g, 20 gm, Range 500 g pk, Shock Limit 2,000 g, 0.5 to 3.5 KHz, - 4 to + 248 F, Grounded, Stud mount
	<b>2400A</b>	Single, 1,000 mV/g, 110 gm, Range 5 g pk, Shock Limit 500 g, 0.3 to 1 KHz, - 4 to + 248 F, Grounded, Stud mount
	<b>2401</b>	Single, 100 mV/g, 24 gm, Range 50 g pk, Shock Limit 2,000 g, 1 to 5 KHz, - 4 to + 248 F, Isolated, Stud mount
	<b>2401A</b>	Single, 100 mV/g, 24 gm, Range 50 g pk, Shock Limit 2,000 g, 1 to 5 KHz, - 4 to + 248 F, Grounded, Stud mount
	<b>2402A</b>	Single, 10,000 mV/g, 250 gm, Range 1 g pk, Shock Limit 500 g, 0.2 to 1 KHz, - 4 to + 248 F, Isolated, Stud mount

## Product Selection Guide

### Electronics IEPE Signal Conditioners


Model	
	<p><b>Model 5103</b> <b>IEPE Signal Conditioner</b> 16 Channels, Status LED's Selectable Gain 1 or 10 on Front Panel</p>
	<p><b>Model 5102</b> <b>IEPE Signal Conditioner</b> 12 Channels, Status LED's Selectable Gain 1 or 10</p>
	<p><b>Model 5100</b> <b>IEPE Signal Conditioner</b> Battery Powered Selectable Gain 1 or 10 Wide Frequency Range</p>
	<p><b>Model 5005</b> <b>Signal Conditioner</b> 3-channel, Low Noise 100 KHz Bandwidth Charge, IEPE and Voltage type inputs Acceleration, Velocity &amp; Displacement Outputs</p>

### Charge Signal Conditioner Amplifier



	<p><b>Model 5004</b> <b>Charge Converter</b> 3 Gain Versions IEPE Type Output ID / TEDS Memory Chip</p>
	<p><b>Model 5000</b> <b>Charge Converter</b> High Gain Wide Bandwidth Short-Circuit Protection</p>
	<p><b>Model 5002</b> <b>Signal Conditioners</b> Charge and Voltage type Inputs Low Noise, Selectable Gain Selectable Corner Frequencies</p>
	<p><b>Model 5003</b> <b>Signal Conditioners</b> Charge and Voltage type Inputs Low Noise, Selectable Gain Selectable Corner Frequencies DC Battery Powered Acceleration, Velocity &amp; Displacement Outputs</p>

## Product Selection Guide


### Electronics DC Voltage Amplifier

Model	
	<p><b>Model 5200</b> <b>Signal Conditioner</b> 3-channel DC Voltage Amplifier DC to 200 KHz Bandwidth Front Panel Switch for Shunt Calibration</p>

### Portable Shakers



	<p><b>Model 5902</b> <b>Portable Shaker</b> Built-in Reference Accelerometer Adjustable Amplitude/ Frequency Output Display</p>
	<p><b>Model 5901</b> <b>Handheld Shaker</b> 1 g Vibration Constant Amplitude &amp; Frequency Battery Powered</p>

### TEDS Reader

	<p><b>Model 5701</b> <b>TEDS Reader</b> Reads Transducer Electronic Data Sheets (TEDS) Reads IEEE 1451.4 Versions 0.9, 1.0 and LMS 117/118</p>
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## Smart Sensors Network System




### Intellibus Network Interface Controllers and Control Software

	<p><b>Model 6100-PCI-X</b> <b>Network Interface Controller (NIC)</b> Supports Intellibus Protocol Two Intellibus Serial Ports</p>
	<p><b>Model 6000SW</b> <b>Smart Sensor Network Application Software</b> Configures IBIMs and Smart Sensors Programmable Settings Records and View Collected Data</p>





## Product Selection Guide

# Smart Sensors Network System


## Smart Sensors

Model	
	<p><b>Model 2300</b>  <b>Smart Piezoelectric Accelerometer</b>            Digital Output Accelerometer            Intellibus Compliant            Programmable Full Scale and Digital Filter</p>
	<p><b>Model 2330</b>  <b>Smart Piezoelectric Accelerometer</b>            Digital Output Accelerometer            Intellibus Compliant            Programmable Full Scale and Digital Filter</p>
	<p><b>Model 2600</b>  <b>Smart Piezoresistive Accelerometer</b>            Digital Output Accelerometer            Intellibus Compliant            Programmable Full Scale and Digital Filter</p>

## Intellibus Interface Module (IBIM)

	<p><b>Model 6003</b>  <b>3 Channel Base Interface Module</b>            Resistive Bridge, Differential or Single Ended Voltage Sensor Inputs            Programmable Gain, Offset, Excitation, TEDS and Digital Filter            Intellibus Network Interface</p>
	<p><b>Model 6004</b>  <b>3 Channel Base Add-on Module</b>            Resistive Bridge, Differential or Single Ended Voltage Sensor Inputs            Programmable Gain, Offset, Excitation, TEDS and Digital Filter            Intellibus Network Interface</p>
	<p><b>Model 6005</b>  <b>3 Channel DSP Module</b>            Resistive Bridge, Differential or Single Ended Voltage Sensor Inputs            Programmable Gain, Offset, Excitation, TEDS and Digital Filter            Intellibus Network Interface</p>
	<p><b>Model 6006</b>  <b>3 Channel Base Interface Module</b>            Integral Electronic Piezoelectric Transducer Inputs            Programmable Gain, Offset, Excitation, TEDS and Digital Filter            Intellibus Network Interface</p>

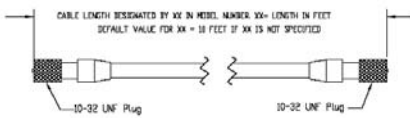
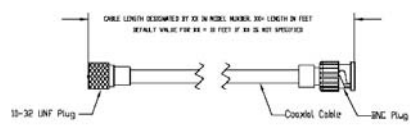
## Intellibus Starter Kit

	<p><b>Model 6000-KIT</b>  <b>Smart Sensors Network System Starter Kit - Includes Models</b>            (1) 6100-PCI-X, (1) 6000SW, (3) 6003, (3) 6005, (1) 2300            and related cables and accessories</p>
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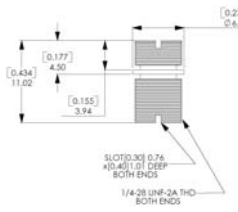
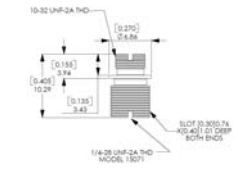
# Product Selection Guide

## Cables and Accessories

### Cables

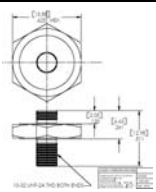
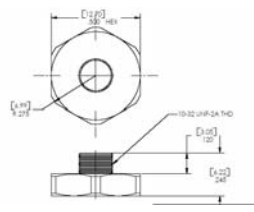
Model	Description
	<b>9001L10</b> Low Noise, Coaxial M5/M5, 10 ft (3.0 m)
	<b>9002L10</b> Low Noise, Coaxial M5/10-32, 10 ft (3.0 m)
	<b>9003L10</b> Low Noise, Coaxial M5/BNC, 10 ft. (3.0 m)
	<b>9005L3</b> Low Noise, Coaxial 10-32/BNC, 3 ft. (0.3 m)
	<b>9005L5</b> Low Noise, Coaxial 10-32/BNC, 5 ft. (0.9 m)
	<b>9005L10</b> Low Noise, Coaxial 10-32/BNC, 10 ft. (3.0 m)
	<b>9005L20</b> Low Noise, Coaxial 10-32/BNC, 20 ft. ( 6.1 m)
	<b>9005LXX</b> Low Noise, Coaxial 10-32/BNC, Custom Length (XX = ft.)
	<b>9006L1</b> Low Noise, Coaxial 10-32/10-32, 1 ft. (0.3 m)
	<b>9006L3</b> Low Noise, Coaxial 10-32/10-32, 3 ft. ( 0.9 m)
	<b>9006L5</b> Low Noise, Coaxial 10-32/10-32, 5 ft. (1.5 m)
	<b>9006L10</b> Low Noise, Coaxial 10-32/10-32, 10 ft. (3.0 m)
	<b>9006L20</b> Low Noise, Coaxial 10-32/10-32, 20 ft. (6.1 m)
	<b>9006L30</b> Low Noise, Coaxial 10-32/10-32, 30 ft. (9.1 m)
	<b>9006LXX</b> Low Noise, Coaxial 10-32/10-32, Custom Length (XX = ft.)
	<b>9007LXX</b> Cable Adapter, IBIM To IBIM, Lemo plug/Lemo Receptacle
	<b>9009L6</b> Coaxial BNC Plug / BNC Plug, 6 ft. (1.8 m)

## Mounting Studs & Accessories

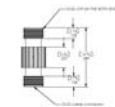

Model	Description
	<b>9504-1</b> Stud, M5/10-32
	<b>9504-2</b> Stud, M6/ ¼-28
	<b>9504-3</b> Stud, M3/10-32
	<b>9504-8</b> Stud, 10-32/10/32
	<b>9504-9</b> Stud, 10-32/ ¼-28
	<b>9504-10</b> Stud, ¼-28 / ¼-28
	<b>9506</b> Adhesive Cement (tube)
	<b>9506-D</b> Debonder for Adhesive Cement (1.75 oz. bottle)
	<b>9508</b> Petro Wax (1 oz.)
	<b>9509-1</b> Mounting Screw, M5
	<b>9510</b> M8 / ¼-28 Mounting Stud

# Product Selection Guide

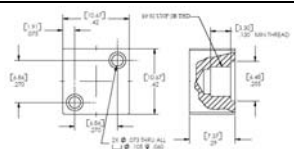
## Cables and Accessories Isolated Mounting Studs

Model	Description
	<b>9505-1</b> Stud, Isolated, M5/10-32
	<b>9505-2</b> Stud, Isolated, M6/ ¼-28
	<b>9505-3</b> Stud, Isolated, M3/10-32
	<b>9505-8</b> Stud, Isolated, 10-32/10-32
	<b>9505-9</b> Stud, Isolated, 10-32/ ¼-28
	<b>9505-10</b> Stud, Isolated, ¼-28 / ¼-28
	<b>9505-11</b> Stud, Isolated, 10-32 with 0.50" hex plate for adhesive mounting
	<b>9505-15</b> Stud, Isolated, 10-32 with 0.75" hex plate for adhesive mounting
	<b>9505-16</b> Stud, Isolated, 10-32 with 1.25" hex plate for adhesive mounting
	<b>9505-13</b> Magnetic Mount Base, 10-32 tapped hole
<b>9505-14</b> Magnetic Mount Base, 10-32 stud	

## Cable Adapters

Model	Description
	<b>9601</b> M5/10-32
	<b>9603</b> 10-32 Coaxial Receptacle to BNC Receptacle
	<b>9604</b> 10-32/10-32
	<b>9605</b> 10-32 Coaxial Receptacle to BNC Plug
	<b>9606</b> Protective Coaxial Cap

## Mounting Blocks

Model	Description
	<b>9701</b> Triaxial Block, 10-32
	<b>9702</b> Triaxial Block, Adhesive
	<b>9703</b> Triaxial Block, for VIP 1022A
	<b>9704</b> Triaxial Block, for VIP 1021A



## Product Selection Guide

### Calibration Services

VIP Sensors offers Calibration Services for most standard accelerometers. Should a customer wish to have calibrated an accelerometer other than a VIP Sensors' model, they should consult with VIP Sensors or with their local VIP Sensors' Representative prior to shipping the unit(s). All calibrations performed by Precision Labs; A2LA Certificate #2405.01; ISO 9001:2000 Certificate US-3242 (Intertek).

Model	DESCRIPTION
SC20-1	Shock Comparison Cal, 1 Point, 20g to 10kg
SC20-5	Shock Comparison Cal, 5 Points, 20g to 10kg
SC22-1	Shock System Sensitivity, 1 Point, 20g to 10kg
SC22-5	Shock System Sensitivity, 5 Points, 20g to 10kg
VC1	Comparison Cal, to 10 kHz, thru resonance, no transverse
VC11	Comparison Cal, Low Frequency from 1 Hz, no transverse
VC15	System Sensitivity Adjustment
VC12	Comparison Cal, Combined High & Low, no transverse
VC15 (add S)	System Cal (add to price of VC Comparison Cal)
(add T)	3-axis accel (multiply by price of VC Comparison Cal)
VC14	EVM Cal, no FAA, no transverse
VC18	Cal of Portable Calibrator

### Terms & Conditions Calibration Services

Should VIP Sensors' accept the unit(s) to be recalibrated, an RMA number will be issued to accompany the returned units. Customer is responsible for shipping cost to and from VIP Sensors. Unit(s) for recalibration should be shipped to:

RMA #  
 c/o VIP Sensors  
 32242 Paseo Adelanto, Suite C  
 San Juan Capistrano, CA 92675  
 (949) 429-3558

### Warranty

Products provided by VIP Sensors are covered by a limited warranty against defective material and workmanship for a period of one year after delivery. If the returned product is proven to be defective, VIP Sensors has the option to repair or replace the product. Please contact VIP Sensors for a Return Material Authorization (RMA) number prior to returning any product.

### Shipping

All orders are shipped FOB shipping point, San Juan Capistrano, California. Shipping charges are prepaid and added to the invoice, unless otherwise specified. Should a customer wish to specify a preferred carrier, they can do so at placement of order.

### Ordering Information

All orders can be placed directly with VIP Sensors or through an authorized Representative. VIP Sensors accepts Visa and MasterCard. Net 30 Days terms available on approved credit.