

VISONG TEST's 100 Series –Low Impedance Voltage Output with Integral Electronics Piezoelectric Accelerometer has build-in microelectronic circuitry to convert charge signal to low impedance voltage output.

100 series accelerometers high light:

- All Build-in microelectronic circuits are designed and made in USA
- High Resolution, Low Broadband Electric Noise at 10 μ V
- Operation Temperature Range: -40°C - +125°C （-40°C - +250°C for J series products）

All Shear Design Sensing Element

- Parallel or Triangle Shear Design with Memory Alloy Fasten Feature
- Choices of High Precision Imported Piezoelectric Ceramic（J series products） or Normal Domestic Piezoelectric Ceramic for different applications
- Economic design with annular shear sensing element

Package and Power Supplier

- 100 series accelerometers work with any type of constant current power supplier with supply voltage of 18-30V, and can be directly connected to a data acquisition with current power supplier.
- The standard accessory of the accelerometer includes one low noise cable (1m) and a calibration certificate.

1. 100 Series Accelerometers - General Standard Model



- Parallel and Triangle shear design sensing element, choices of High Precision Imported Piezoelectric Ceramic (J series products) or Normal Domestic Piezoelectric Ceramic
- Different sensitivities from 1 mV/ ms⁻² to 100 mV/ ms⁻²
- Frequency range (±5%) from 0.5Hz (extend to 0.04Hz) up to 10kHz
- Compact design, small package from 14mm hex/20mm height, and 13 gram weight
- Electric isolation mounting bases are available

Specifications:

Model		Unit	111/112	121/122	131/132	141/142	151/152	161/162	171/172
Sensitivity		mV/ms ⁻²	1	2	5	10	25	50	100
Frequency Range	±5%	Hz	0.5~10000	0.5~8000	0.5~8000	0.5~8000	0.5~4000	0.5~2500	0.06~1000
	±10%	Hz	0.35~12000	0.35~12000	0.35~10000	0.35~10000	0.35~6000	0.04~4000	0.04~1500
Resolution		m/s ²	0.01	0.005	0.002	0.001	0.0004	0.0002	0.0002
Mounting Resonance		KHz	48	40	32	29	18	15	8
Measurement Range		m/s ²	5000	2500	1000	500	200	100	50
Operating Temperature		℃	-50~125						
Weight		gram	12	13	14	15	25	38	160
Dimension	Top Output HexxHxC	mm	13x19x26	13x19x26	13x19x26	13x19x26	16x21x28	18x27x34	29x35x43
	Side Output HexxHxL	mm	13x18x19	13x18x19	13x18x19	13x18x19	16x21x22	18x27x28	29x35x34

- ✧ 111, 121, 131, 141, 151, 161, 171 with top M5 output connector, and 112, 122, 132, 142, 152, 162, 172 with side M5 output connector.

2. 100 Series Accelerometers - Multiple Axis Model

Parallel and Triangle shear design sensing element, choices of High Precision Imported Piezoelectric Ceramic (J series products) or Normal Domestic Piezoelectric Ceramic

Bi - Axis Measurement Model

- Choices of different sensitivities from 2 mV/ ms⁻² to 10 mV/ ms⁻²
- Frequency range (±5%) from 0.5Hz up to 5 kHz
- Low profile design, height of 13 mm
- Center through hole with 360° mounting angle

Specifications:

Model		Unit	12504	13504	14504
Sensitivity		mV/ms ⁻²	2	5	10
Frequency Range	±5%	Hz	0.5~5000		
	±10%	Hz	0.35~6000		
Resolution		m/s ²	0.005	0.002	0.001
Mounting Resonance		KHz	22		
Measurement Range		m/s ²	2500	1000	500
Operating Temperature		°C	-50~125		
Weight		gram	22	26	28
Dimension		mm	21x13x7		



Tri - Axis Measurement Model

- Choices of different sensitivities from 2 mV/ ms⁻² to 50 mV/ ms⁻²
- Frequency range (±5%) from 0.5Hz up to 5 kHz
- Low profile design, height from 14 mm to 20 mm
- Center through hole with 360° mounting angle

Miniature tri-axis accelerometer 13510

Specifications:

Model		Unit	12500	13500	13510	14500	16500
Sensitivity		mV/ms ⁻²	2	5	4	10	50
Frequency Range	±5%	Hz	0.5~5000	0.5~5000	0.5~5000	0.5~5000	0.5~1500
	±10%	Hz	0.35~6000	0.35~6000	0.3~7000	0.35~6000	0.35~2000
Resolution		m/s ²	0.05	0.002	0.005	0.001	0.0002
Mounting Resonance		KHz	20	20	20	20	8
Measurement Range		m/s ²	2500	1000	1250	500	100
Operating Temperature		°C	-50~125				
Weight		gram	60	62	14	65	200
Dimension		mm	28x14x13	28x14x13	16x16x16	28x14x13	39x20x18

3. 100 Series Accelerometers - Industrial Environment Measurement Model

Dual Case Design with Removable Industrial Connector

- Sensitivities: 10 mV/ ms⁻² to 30 mV/ ms⁻²
- Dual case design, high frequency measurement (10%) up to 10 kHz (600000rpm)
- Choices of two matting connectors, straight and 90 degree

Specifications:

Model		Unit	14115	14116	15115	15116
Sensitivity		mV/ms ⁻²	10	10	30	20
Frequency Range	±5%	Hz	0.5~8000	0.5~7000	0.5~4000	0.5~4000
	±10%	Hz	0.35~10000	0.35~8000	0.35~5000	0.5~5000
Resolution		m/s ²	0.001	0.001	0.0004	0.0005
Mounting Resonance		KHz	25	22	16	15
Measurement Range		m/s ²	2500	1000	500	100
Operating Temperature		℃	-50~125			
Case Insulation Resistance		Ω	>1x10 ⁸			
Output Connector			M16 2-pin			
Sealing			IP68			
Weight		gram	85	85	90	90
Dimension	HexxHxC	mm	27x34x47			



Dual Case Design with Integral Cable

- Sensitivities: 10 mV/ ms⁻² and 30 mV/ ms⁻²
- 3 mounting methods: regular M6 thread, through hole and magnetic mounting
- Choices of top and side integral cable connection location
- Metal jacket is available for cable protection



Specifications:

Model		Unit	14117	14125	14226	15117
Sensitivity		mV/ms ⁻²	10	10	10	30
Frequency Range	±5%	Hz	0.5~8000	0.5~4000	0.5~4000	0.5~4000
	±10%	Hz	0.35~10000	0.35~5000	0.35~5000	0.5~5000
Resolution		m/s ²	0.001	0.001	0.001	0.0003
Mounting Resonance		KHz	25	29	13	16
Measurement Range		m/s ²	500	500	500	160
Operating Temperature		℃	-50~125			
Case Insulation Resistance		Ω	>1x10 ⁸			
Output Connector			Integral Cable Output			
Sealing			IP68			
Weight		gram	92	115	85	95
Dimension	HexxHxC	mm	27x34x60	25x30x57	25x22x63	27x34x60
Mounting			M5	Magnetic Base	M6 Through Hole	M5

Single Case Integral Cable Design with Isolated Mounting Base

- Sensitivities: 10 mV/ ms⁻² and 20 mV/ ms⁻²
- Choices of isolated and non-isolated mounting base
- Integral harness with Φ3mm low noise cable

**Specifications:**

Model		Unit	14121	14122	15121	15122
Sensitivity		mV/ms ⁻²	10	10	20	20
Frequency Range	±5%	Hz	0.5~8000	0.5~8000	0.5~5000	0.5~4000
	±10%	Hz	0.35~10000	0.35~10000	0.35~6000	0.5~5000
Resolution		m/s ²	0.001	0.001	0.0005	0.0005
Mounting Resonance		KHz	27	26	15	13
Measurement Range		m/s ²	500	500	250	250
Operating Temperature		°C	50~125			
Case Insulation Resistance		Ω	0	>1x10 ⁸	0	>1x10 ⁸
Weight		gram	25	25	49	49
Dimension	HexxHxL	mm	20x21x31	20x21x31	20x23x33	20x23x33

TNC Output Connector Model with Isolated Mounting Base

- Sensitivities: 5 mV/ ms⁻², 10 mV/ ms⁻² and 20 mV/ ms⁻²
- Choices of top and side output connector with 5mm co-axial cable.

**Specifications:**

Model		Unit	13220	14103	14218	15103
Sensitivity		mV/ms ⁻²	5	10	10	20
Frequency Range	±5%	Hz	0.5~5000	0.5~6000	0.5~5000	0.5~3500
	±10%	Hz	0.35~6000	0.35~7000	0.35~6000	0.5~4500
Resolution		m/s ²	0.002	0.001	0.001	0.0005
Mounting Resonance		KHz	14	22	15	22
Measurement Range		m/s ²	1000	500	500	250
Operating Temperature		°C	-50~125			
Ground Insulation Resistance		Ω	>1x10 ⁸			
Weight		gram	75	46	46	55
Dimension	HexxHxL	mm	22x30x34	21x29x42	22x21x36	22x21x36

4. 100 Series Accelerometers - Special Application Model

Low Frequency Measurement Accelerometers

- Sensitivities: 10 mV/ ms⁻² and 100 mV/ ms⁻²
- Extended low frequency measurement down to 0.1 and 0.04Hz
- Electric isolated mounting base



Specifications:

Model		Unit	14105	14205	17110
Sensitivity		mV/ms ⁻²	10	10	100
Frequency Range	±5%	Hz	0.15~6000	0.15~6000	0.06~1000
	±10%	Hz	0.1~7000	0.1~7000	0.04~1500
Resolution		m/s ²	0.001	0.001	0.0005
Mounting Resonance		KHz	28	28	7
Measurement Range		m/s ²	500	500	50
Operating Temperature		°C	-50~125		
Output Connector			M5	M5	Integral BNC
Base Insulation Resistance		Ω	0	0	>1x10 ⁸
Weight		gram	25	25	160
Dimension	HexxHxL	mm	16x21x28	16x21x23	29x40x66

Model Testing Sensor

- Frequency response phase shift < 5°
- Low profile design, height of 8 mm
- Choices of High Precision Imported Piezoelectric Ceramic (J series products) or Normal Domestic Piezoelectric Ceramic for different applications

Specifications:

Model		Unit	14206
Sensitivity		mV/ms ⁻²	10
Frequency Range	±5%	Hz	0.5~8000
	±10%	Hz	0.3~10000
Resolution		m/s ²	0.001
Mounting Resonance		KHz	25
Measurement Range		m/s ²	500
Operating Temperature		°C	-50~125
Weight		gram	9
Dimension	HexxHxL	mm	14x10x21



5. 100 Series Accelerometers - Economic Version

100 Series Economic Version

- Build-in circuitry made in USA
- Annular shear design with 2 sensitivities: 5mV/ ms⁻² and 10 mV/ ms⁻²
- Top output connector with 2 metric threads, M5 and M6
- Choices of isolated and non-isolated mounting base
- Offer side output connector as customer special



Specifications:

Model	Unit	13108	13110	13111	13112	14108	14110	14111	14112
Sensitivity	mV/ms ⁻²	5	5	5	5	10	10	10	10
Frequency Range ±10%	Hz	0.5~10000	0.5~9000	0.5~10000	0.5~9000	0.5~10000	0.5~8000	0.5~8000	0.5~9000
Resolution	m/s ²	0.002	0.002	0.002	0.002	0.001	0.001	0.001	0.001
Mounting Resonance	KHz	30	28	30	28	27	24	27	26
Measurement Range	m/s ²	1000	1000	1000	1000	500	500	500	500
Operating Temperature	°C	-50~125							
Base Insulation Resistance	Ω	0	>1x10 ⁸	0	>1x10 ⁸	0	>1x10 ⁸	0	>1x10 ⁸
Weight	gram	23	23	23	23	25	25	25	25
Dimension	HexxHxC	mm 17x21x27							