Accelerometer application solution

——Vibration test and measurement technology

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Shanghai WTS Technology

Your trustworthy sensor expert

CONTENT

Corporate Mission

Developing our very own Chinese sensors,empowering the Transformation and upgrading of Manufacturing.

Quality Control

WTS has obtained ISO 9001 quality certification: Strict adherence to production quality standards is both a legal obligation for WTS and an indispensable part of the manufacturing process. Throughout R&D and production, WTS consistently follows quality standards and production procedures to ensure product reliability and stability. WTS sensors have earned the enduring trust of our customers.

Deep Collaboration

WTS focuses on technological breakthroughs and international imports, having established long-term partnerships with renowned R&D institutions in aerospace, shipbuilding, automotive, and other sectors. WTS has not only earned a solid reputation and widespread recognition in China's defense and automotive industries, but also exports its products to dozens of countries across the United States, Europe, Australia, and beyond.

Technical Services

WTS not only boasts a robust R&D team delivering high-quality accelerometers but also features an experienced application engineering team to provide technical support for your testing needs. We offer services including product selection assistance, application guidance, and foundational training.

ABOUT US

Shanghai WTS Technology Co., Ltd. is a high-tech enterprise specializing in the R&D of acceleration sensors. With over a decade of sensor development history and cross-industry application experience, the company has fully absorbed core sensor technologies from Europe and America, establishing an independent R&D system.

WTS possesses comprehensive capabilities in R&D, manufacturing, and testing. At the R&D end, a team led by PhDs achieves technological breakthroughs, leaving no gaps. In manufacturing, we pursue excellence and relentless refinement. In testing, we uphold pragmatism and integrity, eliminating any falsification. In application, we meticulously and reliably screen products. Guided by customer needs, we continuously iterate and innovate, rapidly growing into a leading sensor manufacturer in the industry.

New Era, New Journey

We fully recognize that top-tier talent, state-of-the-art equipment, and first-class management are the cornerstones of creating world-class sensors.
Our technical department is led by PhDs, with over 50% of employees holding master's degrees or higher. We maintain technical exchange and collaborative relationships with leading domestic institutions such as Huazhong University of Science and Technology, National University of Defense Technology, and Shanghai Jiao Tong University. Our testing and analysis instruments utilize world-class equipment, supplemented by proprietary high-precision testing instruments for auxiliary evaluations.
In quality management, we adopt aerospace-grade quality control principles and a “zero-tolerance” philosophy. This ensures precise identification, clear mechanisms, reproducible issues, effective measures, and comprehensive lessons learned—leaving no blind spots or potential risks!
Our goal and mission is to ensure every sensor delivers exceptional quality, empowering you to achieve precise and reliable testing!

HIGH SHOCK ACCELEROMETERS

The high shock accelerometer is specifically engineered for testing extreme high-amplitude, short-duration instantaneous acceleration. These accelerometers are designed to withstand exceptionally high G-value impacts and can effectively respond to accelerations reaching 100,000g or even higher within an extremely brief time frame.

Product features

High strength;

Quick response;

Lightweight titanium alloy structure;

Sealed, suitable for harsh environment.

Application scenarios:

Cutting and separation; simulated explosion;

Impact and penetration resistance; stamping press testing;

Explosive research; vibration table impact testing;

Bulletproof clothing, metal collision, helmet testing.

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HIGH SHOCK ACCELEROMETERS

- To ensure the reliability of the testing process in shocks exceeding 10,000g, it is recommended to either use an integrated cable or reinforce the connector.
- When operating at high temperatures, please consider using a high-temperature integrated cable.

High shock monoaxial accelerometer (PE)

					
Model		**S117C.10**	**S117C.5**	**S112C.2**	**S112C**
Sensitivity		0.05pC/g	0.10pC/g	0.25pC/g	0.30pC/g
Range		±100,000gpk	±50,000gpk	±20,000gpk	±10,000gpk
Resolution		-	-	-	-
Frequency Response	±5%	15kHz	15kHz	15kHz	15kHz
	±10%	20kHz	20kHz	20kHz	20kHz
Resonant Frequency		＞100kHz	＞100kHz	＞75kHz	＞75kHz
Linearity		≤1%	≤1%	≤1%	≤1%
Horizontal Sensitivity		≤5%	≤5%	≤5%	≤5%
Temperature range		-55~+160℃	-55~+160℃	-55~+160℃	-55~+160℃
Sensing element		Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear
Connector		Integrated cable	Integrated cable	Integrated cable	Integrated cable
Electrical isolation		-	-	-	-
Case material		Titanium	Titanium	Titanium	Titanium
Sealing		Laser welding	Laser welding	Laser welding	Laser welding
Weight		4.5g	4.5g	6.5g	6.5g
Size		Φ9X16	Φ9X16	Φ11 X16	Φ11 X16
Mounting		M6X0.75 Bolt	M6X0.75 Bolt	M6X0.75 Bolt	M6X0.75 Bolt

Note: [1] Charged acclerometer output impedance≥1X10^{11}Ω,
[2] Low-frequency response depends on the decision of external conditioning equipment

Size Unit: mm

HIGH SHOCK ACCELEROMETER

- To ensure the reliability of the testing process in shocks exceeding 10,000g, it is recommended to either use an integrated cable or reinforce the connector.
- When operating at high temperatures, please consider using a high-temperature integrated cable.

High shock monoaxial accelerometer（IEPE）

						
Model		**S112E.05**	**S112E**	**S112E.2**	**S117E.5**	**S117E.10**
Sensitivity		1mV/g	0.5mV/g	0.25mV/g	0.10mV/g	0.05mV/g
Range		±5,000gpk	±10,000gpk	±20,000gpk	±50,000gpk	±100,000gpk
Resolution		-	-	-	-	-
Frequency Response	±5%	2-15kHz	2-15kHz	2-15kHz	2-15kHz	2-15kHz
	±10%	1-20kHz	1-20kHz	1-20kHz	1-20kHz	1-20kHz
Resonant Frequency		＞75kHz	＞75kHz	＞75kHz	＞100kHz	＞100kHz
Linearity		≤1%	≤1%	≤1%	≤1%	≤1%
Horizontal Sensitivity		≤5%	≤5%	≤5%	≤5%	≤5%
Temperature range		-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃
Sensing element		Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear
Connector		Integrated cable	Integrated cable	Integrated cable	Integrated cable	Integrated cable
Electrical isolation		-	-	-	-	-
Case material		Titanium	Titanium	Titanium	Titanium	Titanium
Sealing		Laser welding	Laser welding	Laser welding	Laser welding	Laser welding
Weight		6.5g	6.5g	6.5g	6g	6g
Size		Φ11 X16	Φ11 X16	Φ11 X16	Φ10.8 X21.8	Φ10.8 X 21.8
Mounting		M6X0.75 Bolt	M6X0.75 Bolt	M6X0.75 Bolt	M6X0.75 Bolt	M6X0.75 Bolt

Note： [1] IEPE accelerometer excitation voltage 18-28VDC, excitation current 2-10mA
bias voltage 11±1.5V

Size Unit: mm

GENERAL-PURPOSE ACCELEROMETER

General-purpose accelerometers employ the principle of piezoelectriceffect, offering mono-axial, tri-axial, and high resistance charge output (PE) as well as low resistance voltage output (IEPE) to cater to a wide range of testing requirements. Triaxial accelerometers are capable of simultaneously measuring in three orthogonal directions, enabling comprehensive analysis of all vibrations experienced by the structure. Each unit comprises three distinct sensing elements positioned at right angles to each other.

Product features:

High reliability and stability;

Ease of operation;

Variable sensitivity;

Wide frequency range; high signal-to-noise ratio;

Suitable for diverse vibration testing applications;

Features an IEPE internal resistance converter.

Application scenarios：

Vibration reliability testing;

Structural testing;

Product quality analysis;

Vibration control;

Mechanical equipment studies

GENERAL-PURPOSE ACCELEROMETER

The charged output accelerometer needs to connect the low noise cable, and then connect to the charge amplifier, impedance converter or signal analysis instrument supporting the charge input type.

General-purpose monoaxial accelerometer(PE)

Model		U112C	U112C.3	U112C.5	U122C	U122C.3	U122C.5
Sensitivity		10pC/g	30pC/g	50pC/g	10pC/g	30pC/g	50pC/g
Range		±500gpk MAX 3, 000gpk	±160gpk MAX 2, 000gpk	±100gpk MAX 1, 000gpk	±500gpk MAX 3, 000gpk	±160gpk MAX 2, 000gpk	±100gpk MAX 1, 000gpk
Resolution		-	-	-	-	-	-
Frequency Response	±5%	10kHz	8kHz	6kHz	10kHz	8kHz	6kHz
	±10%	11kHz	10kHz	7kHz	11kHz	10kHz	7kHz
Resonant Frequency		＞42kHz	＞38kHz	＞29kHz	＞42kHz	＞38kHz	＞29kHz
Linearity		≤1%	≤1%	≤1%	≤1%	≤1%	≤1%
Horizontal Sensitivity		≤5%	≤5%	≤5%	≤5%	≤5%	≤5%
Temperature range		-55~+160℃	-55~+160℃	-55~+160℃	-55~+160℃	-55~+160℃	-55~+160℃
Sensing element		Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear
Connector		10-32 Top	10-32 Top	10-32 Top	10-32 Side	10-32 Side	10-32 Side
Electrical isolation		-	-	-	-	-	-
Case material		Titanium	Titanium	Titanium	Titanium	Titanium	Titanium
Sealing		Laser welding	Laser welding	Laser welding	Laser welding	Laser welding	Laser welding
Weight		6.3g	13g	21g	6.3g	13g	21g
Size		11 X 22	13 X 25.5	16X27.5	11 X 16	13 X 19	16 X 22
Mounting		10-32 Screw hole	10-32 Screw hole	10-32 Screw hole	10-32 Screw hole	10-32 Screw hole	10-32 Screw hole

Note: [1] Charged acclerometer output impedance≥1X10^{11}Ω,
[2] Low-frequency response depends on the decision of external conditioning equipment

Size Unit: mm

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GENERAL-PURPOSE ACCELEROMETER

The IEPE accelerometer integrated the impedance converter and Sensing Element, so that the Acceleometer output is a low impedance voltage, and the signal can be read directly.DC power supply and signal use the same cable

General-purpose monoaxial accelerometer（IEPE）

Model		U112E	U112E.2	U112E.5	U112E.6	U112E.7
Sensitivity		10mV/g	20mV/g	50mV/g	100mV/g	200mV/g
Range		±500gpk	±250gpk	±100gpk	±50gpk	±25gpk
Resolution		0.001grms	0.0005grms	0.0002grms	0.0001grms	0.00005grms
Frequency Response	±5%	1-10kHz	1-10kHz	1-10kHz	1-10kHz	1-7kHz
	±10%	0.5-11kHz	0.5-11kHz	0.5-11kHz	0.5-11kHz	0.5-8kHz
Resonant Frequency		＞42kHz	＞42kHz	＞42kHz	＞42kHz	＞27kHz
Linearity		≤1%	≤1%	≤1%	≤1%	≤1%
Horizontal Sensitivity		≤5%	≤5%	≤5%	≤5%	≤5%
Temperature range		-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃
Sensing element		Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear
Connector		10-32 Top	10-32 Top	10-32 Top	10-32 Top	10-32 Top
Electrical isolation		–	–	–	–	–
Case material		Titanium	Titanium	Titanium	Titanium	Titanium
Sealing		Laser welding	Laser welding	Laser welding	Laser welding	Laser welding
Weight		6.3g	6.3g	6.3g	6.3g	14g
Size		11 X 22	11 X 22	11 X 22	11 X 22	13 X 25
Mounting		10-32 Screw hole	10-32 Screw hole	10-32 Screw hole	10-32 Screw hole	10-32 Screw hole

Note: [1] IEPE accelerometer excitation voltage 18-30VDC, excitation current 2-20mA
bias voltage 11±1.5V

Size Unit: mm

GENERAL-PURPOSE ACCELEROMETER

The IEPE accelerometer integrated the impedance converter and Sensing Element, so that the Acceleometer output is a low impedance voltage, and the signal can be read directly.DC power supply and signal use the same cable

General-purpose monoaxial accelerometer（IEPE）






Model		U112E.8	U112E.9	U122E	U122E.2	U122E.5	U122E.6
Sensitivity		300mV/g	500mV/g	10mV/g	20mV/g	50mV/g	100mV/g
Range		±16gpk	±10gpk	±500gpk	±250gpk	±100gpk	±50gpk
Resolution		0.00002grms	0.00002grms	0.001grms	0.0005grms	0.0002grms	0.0001grms
Frequency Response	±5%	1-6kHz	1-5kHz	1-10kHz	1-10kHz	1-10kHz	1-10kHz
	±10%	0.5-7kHz	0.5-7kHz	0.5-11kHz	0.5-11kHz	0.5-11kHz	0.5-11kHz
Resonant Frequency		＞23kHz	＞23kHz	＞42kHz	＞42kHz	＞42kHz	＞42kHz
Linearity		≤1%	≤1%	≤1%	≤1%	≤1%	≤1%
Horizontal Sensitivity		≤5%	≤5%	≤5%	≤5%	≤5%	≤5%
Temperature range		-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃
Sensing element		Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear
Connector		10-32 Top	10-32 Top	10-32 Side	10-32 Side	10-32 Side	10-32 Side
Electrical isolation		–	–	–	–	–	–
Case material		Titanium	Titanium	Titanium	Titanium	Titanium	Titanium
Sealing		Laser welding	Laser welding	Laser welding	Laser welding	Laser welding	Laser welding
Weight		22g	22g	6.3g	6.3g	6.3g	6.3g
Size		16X27.5	16X27.5	11X16	11X16	11X16	11X16
Mounting		10-32 Screw hole	10-32 Screw hole	10-32 Screw hole	10-32 Screw hole	10-32 Screw hole	10-32 Screw hole

Note: [1] IEPE accelerometer excitation voltage 18-28VDC, excitation current 2-10mA
bias voltage 11±1.5V

Size Unit: mm

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GENERAL-PURPOSE ACCELEROMETER

The IEPE accelerometer integrated the impedance converter and Sensing Element, so that the Acceleometer output is a low impedance voltage, and the signal can be read directly.DC power supply and signal use the same cable

General-purpose monoaxial accelerometer（IEPE）





Model		U122E.7	U122E.8	U122E.9	U126E.6	U126E.6
Sensitivity		200mV/g	300mV/g	500mV/g	50mV/g	100mV/g
Range		±25gpk	±16gpk	±10gpk	±100gpk	±50gpk
Resolution		0.00005grms	0.00002grms	0.00002grms	0.0002grms	0.0001grms
Frequency Response	±5%	1-7kHz	1-6kHz	1-5kHz	1-10kHz	1-10kHz
	±10%	0.5-8kHz	0.5-7kHz	0.5-7kHz	0.5-12kHz	0.5-12kHz
Resonant Frequency		＞27kHz	＞23kHz	＞23kHz	＞38kHz	＞38kHz
Linearity		≤1%	≤1%	≤1%	≤1%	≤1%
Horizontal Sensitivity		≤5%	≤5%	≤5%	≤5%	≤5%
Temperature range		-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃
Sensing element		Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear
Connector		10-32 Side	10-32 Side	10-32 Side	10-32 Side	10-32 Side
Electrical isolation		–	–	–	–	–
Case material		Titanium	Titanium	Titanium	Titanium	Titanium
Sealing		Laser welding	Laser welding	Laser welding	Laser welding	Laser welding
Weight		14g	22g	22g	2.3g	2.3g
Size		13X19	16X22	16X22	7.7X7.7 X6	7.7X7.7 X6
Mounting		10-32 Screw hole	10-32 Screw hole	10-32 Screw hole	Adhesive	Adhesive

Note: [1] IEPE accelerometer excitation voltage 18-28VDC, excitation current 2-10mA
bias voltage 11±1.5V

Size Unit: mm

GENERAL-PURPOSE ACCELEROMETERS

■ The charged output accelerometer needs to connect the low noise cable, and then connect to the charge amplifier, impedance converter or signal analysis instrument supporting the charge input type.

General-purpose monoxial accelerometer（IEPE） General-purpose triaxial accelerometer(PE)

						
Model		**U127E.5**	**U127E.6**	**U313C**	**U318C**	**U318C.2**
Sensitivity		50mV/g	100mV/g	10pC/g	10pC/g	20pC/g
Range		±100gpk	±50gpk	±500gpk MAX 2, 000gpk	±500gpk MAX 2, 000gpk	±250gpk MAX 1, 000gpk
Resolution		0.0002grms	0.0001grms	–	–	–
Frequency Response	±5%	1-10kHz	1-10kHz	7kHz	7kHz	7kHz
	±10%	0.5-12kHz	0.5-12kHz	8kHz	8kHz	8kHz
Resonant Frequency		＞38kHz	＞38kHz	＞25kHz	＞29kHz	＞29kHz
Linearity		≤1%	≤1%	≤1%	≤1%	≤1%
Horizontal Sensitivity		≤5%	≤5%	≤5%	≤5%	≤5%
Temperature range		-55~+120℃	-55~+120℃	-55~+160℃	-55~+160℃	-55~+160℃
Sensing element		Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear
Connector		10-32 Side	10-32 Side	3*10-32	3*10-32	3*10-32
Electrical isolation		–	–	–	–	–
Case material		Titanium	Titanium	Titanium	Titanium	Titanium
Sealing		Laser welding	Laser welding	Laser welding	Laser welding	Laser welding
Weight		2.5g	2.5g	25g	16g	19g
Size		8.5X8.5 X6.6	8.5X8.5 X6.6	26X19X12.5	16X16X9	18X18X10.7
Mounting		Adhesive	Adhesive	2*Φ4 Through hole	Φ4.1Through hole	Φ4.1 Through hole

Note: [1] Charged acclerometer output impedance≥1X10^{11}Ω,
[2] Low-frequency response depends on the decision of external conditioning equipment

Size Unit: mm

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GENERAL-PURPOSE ACCELEROMETERS

■ The IEPE accelerometer integrated the impedance converter and Sensing Element, so that the Acceleometer output is a low impedance voltage, and the signal can be read directly.DC power supply and signal use the same cable

General-purpose triaxial accelerometer(IEPE)

						
Model		**U318E**	**U318E.5**	**U318E.6**	**U328E**	**U328E.2**
Sensitivity		10mV/g	50mV/g	100mV/g	10mV/g	20mV/g
Range		±500gpk	±100gpk	±50gpk	±500gpk	±250gpk
Resolution		0.001grms	0.0002grms	0.0001grms	0.001grms	0.0005grms
Frequency Response	±5%	1-7kHz	1-7kHz	1-7kHz	1-8kHz	1-8kHz
	±10%	0.5-8kHz	0.5-8kHz	0.5-8kHz	0.5-10kHz	0.5-10kHz
Resonant Frequency		＞25kHz	＞25kHz	＞25kHz	＞70kHz	＞60kHz
Linearity		≤1%	≤1%	≤1%	≤1%	≤1%
Horizontal Sensitivity		≤5%	≤5%	≤5%	≤5%	≤5%
Temperature range		-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃
Sensing element		Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear
Connector		3*10-32	3*10-32	3*10-32	1/4-28 4pin	1/4-28 4pin
Electrical isolation		–	–	–	–	–
Case material		Titanium	Titanium	Titanium	Titanium	Titanium
Sealing		Laser welding	Laser welding	Laser welding	Laser welding	Laser welding
Weight		16g	19g	19g	9.5g	9.5g
Size		16X16X9	16X16X9	16X16X9	16X16 X9	16X16 X9
Mounting		Φ4.1 Through hole	Φ4.1 Through hole	Φ4.1 Through hole	Φ3.1 Through hole	Φ3.1 Through hole

Note: [1] IEPE accelerometer excitation voltage 18-28VDC, excitation current 2-10mA
bias voltage 11±1.5V

Size Unit: mm

GENERAL-PURPOSE ACCELEROMETERS

The IEPE accelerometer integrated the impedance converter and Sensing Element, so that the Acceleometer output is a low impedance voltage, and the signal can be read directly.DC power supply and signal use the same cable

General-purpose triaxial accelerometer(IEPE)





Model		U328E.5	U328E.6	U321E	U321E.5	U321E.6
Sensitivity		50mV/g	100mV/g	10mV/g	50mV/g	100mV/g
Range		±100gpk	±50gpk	±500gpk	±100gpk	±50gpk
Resolution		0.0002grms	0.0001grms	0.001grms	0.0002grms	0.0001grms
Frequency Response	±5%	1-8kHz	1-8kHz	1-8kHz (X:1-5kHz)	1-8kHz (X:1-5kHz)	1-8kHz (X:1-5kHz)
	±10%	0.5-10kHz	0.5-10kHz	0.5-9kHz (X:0.5-6kHz)	0.5-9kHz (X:0.5-6kHz)	0.5-9kHz (X:0.5-6kHz)
Resonant Frequency		＞40kHz	＞37kHz	＞70kHz	＞38kHz	＞25kHz
Linearity		≤1%	≤1%	≤1%	≤1%	≤1%
Horizontal Sensitivity		≤5%	≤5%	≤5%	≤5%	≤5%
Temperature range		-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃
Sensing element		Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear
Connector		1/4-28 4pin	1/4-28 4pin	1/4-28 4pin	1/4-28 4pin	1/4-28 4pin
Electrical isolation		–	–	–	–	–
Case material		Titanium	Titanium	Titanium	Titanium	Titanium
Sealing		Laser welding	Laser welding	Laser welding	Laser welding	Laser welding
Weight		9.5g	9.5g	11g	11g	11g
Size		16X16X9	16X16X9	14Cube	14Cube	14Cube
Mounting		Φ4 Through hole	Φ4 Through hole	10-32 Screw hole	10-32 Screw hole	10-32 Screw hole

Note: [1] IEPE accelerometer excitation voltage 18-28VDC, excitation current 2-10mA
bias voltage 11±1.5V

Size Unit: mm

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GENERAL-PURPOSE ACCELEROMETERS

The IEPE accelerometer integrated the impedance converter and Sensing Element, so that the Acceleometer output is a low impedance voltage, and the signal can be read directly.DC power supply and signal use the same cable

General-purpose triaxial accelerometer(IEPE)



Model		U321E.7	U321E.8	U323E	U323E.5	U323E.6
Sensitivity		200mV/g	300mV/g	10mV/g	50mV/g	100mV/g
Range		±25gpk	±16gpk	±500gpk	±100gpk	±50gpk
Resolution		0.00005grms	0.00002grms	0.001grms	0.0002grms	0.0001grms
Frequency Response	±5%	1-5kHz	1-5kHz	1-5kHz	1-5kHz	1-5kHz
	±10%	0.5-6kHz	0.5-6kHz	0.5-7kHz	0.5-7kHz	0.5-7kHz
Resonant Frequency		＞25kHz	＞25kHz	＞37kHz	＞37kHz	＞37kHz
Linearity		≤1%	≤1%	≤1%	≤1%	≤1%
Horizontal Sensitivity		≤5%	≤5%	≤5%	≤5%	≤5%
Temperature range		-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃
Sensing element		Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear
Connector		1/4-28 4pin	1/4-28 4pin	1/4-28 4pin	1/4-28 4pin	1/4-28 4pin
Electrical isolation		–	–	–	–	–
Case material		Titanium	Titanium	Titanium	Titanium	Titanium
Sealing		Laser welding	Laser welding	Laser welding	Laser welding	Laser welding
Weight		14g	14g	11.5g	11.5g	11.5g
Size		14Cube	14Cube	15X15X10.5	15X15X10.5	15X15X10.5
Mounting		10-32 Screw hole	10-32 Screw hole	Adhesive/ 10-32 Screw hole	Adhesive/ 10-32 Screw hole	Adhesive/ 10-32 Screw hole

Note: [1] IEPE accelerometer excitation voltage 18-28VDC, excitation current 2-10mA
bias voltage 11±1.5V

Size Unit: mm

General-purpose high-frequency acceleration sensor

- The IEPE accelerometer integrated the impedance converter and Sensing Element, so that the Acceleometer output is a low impedance voltage, and the signal can be read directly.DC power supply and signal use the same cable

General-purpose triaxial accelerometer(IEPE)

						
Model		**U112EF.05**	**U112EF**	**U112EF.2**	**U321EF.5**	**U321EF.6**
Sensitivity		5mV/g	10mV/g	20mV/g	50mV/g	100mV/g
Range		±1000gpk	±500gpk	±250gpk	±100gpk	±50gpk
Resolution		0.001grms	0.0005grms	0.0002grms	0.0001grms	0.00005grms
Frequency Response	±5%	1-20kHz	1-20kHz	1-20kHz	1-9kHz	1-9kHz
	±10%	0.5-21kHz	0.5-21kHz	0.5-21kHz	0.5-10kHz	0.5-10kHz
Resonant Frequency		>65kHz	>65kHz	>65kHz	>42kHz	>42kHz
Linearity		≤1%	≤1%	≤1%	≤1%	≤1%
Horizontal Sensitivity		≤5%	≤5%	≤5%	≤5%	≤5%
Temperature range		-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃
Sensing element		Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear
Connector		10-32 Top	10-32 Top	10-32 Top	1/4-28 4pin	1/4-28 4pin
Electrical isolation		–	–	–	–	–
Case material		Titanium	Titanium	Titanium	Titanium	Titanium
Sealing		Laser welding	Laser welding	Laser welding	Laser welding	Laser welding
Weight		6.3g	6.3g	6.3g	11g	11g
Size		11 X 22	11 X 22	11 X 22	14 Cube	14 Cube
Mounting		10-32 Screw hole	10-32 Screw hole	10-32 Screw hole	2X10-32 Screw hole	2X10-32 Screw hole

Note: [1] IEPE accelerometer excitation voltage 18-28VDC, excitation current 2-10mA
bias voltage 11±1.5V

Size Unit: mm

HIGH SENSITIVITY ACCELEROMETERS

High sensitive accelerometers are specifically engineered to detect earthquakes, as well as vibrations in large buildings and bridges. They are characterized by high sensitivity and low vibration levels.Through monitoring and analyzing buildings, timely preventive or corrective actions can be taken. WTS offers users the choice of mono-axial and tri-axial high sensitivity acceleration sensors.

Product features:

High strength, reliability, and stability;

Exceptional sensitivity;

Features an IEPE internal resistance converter.

Application scenarios：

Monitoring of bridge structures,

Building vibration monitoring,

Earthquake monitoring and early warning,

Foundation vibration monitoring,

Geological structure research.

HIGH SENSITIVITY ACCELEROMETERS

- The IEPE accelerometer integrated the impedance converter and Sensing Element, so that the Acceleometer output is a low impedance voltage, and the signal can be read directly.DC power supply and signal use the same cable

High sensitivity monoaxial accelerometer（IEPE）

					
Model		**V111E**	**V112E**	**V112E.2**	**V112EM**
Sensitivity		1V/g	1V/g	2V/g	1V/g
Range		±5gpk	±5gpk	±2.5gpk	±5gpk
Resolution		0.00001grms	0.00001grms	0.00001grms	0.00001grms
Frequency Response	±5%	0.5-3000 Hz	0.3-2000 Hz	0.3-1500 Hz	0.3-2000 Hz
	±10%	1-5000 Hz	0.2-3000 Hz	0.2-2000 Hz	0.2-3000 Hz
Resonant Frequency		＞15kHz	＞15kHz	＞15kHz	＞15kHz
Linearity		≤1%	≤1%	≤1%	≤1%
Horizontal Sensitivity		≤5%	≤5%	≤5%	≤5%
Temperature range		-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃
Sensing element		Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear
Connector		10-32 Side	10-32 Top	10-32 Top	Integrated Cable
Electrical isolation		-	Base Isolation	Base Isolation	Base Isolation
Case material		Titanium	Titanium	Titanium	Titanium
Sealing		Laser welding	Laser welding	Laser welding	Laser welding
Weight		9.8g	50g	57.5g	50g
Size		11.5Cube	21 X23	21 X23	21 X23
Mounting		5-40 Screw hole	10-32 Screw hole	10-32 Screw hole	10-32 Screw hole

Note: [1] IEPE accelerometer excitation voltage 18-28VDC, excitation current 2-10mA
bias voltage 11±1.5V

Size Unit: mm

WTS TECHNOLOGY

HIGH SENSITIVITY ACCELEROMETERS

- The IEPE accelerometer integrated the impedance converter and Sensing Element, so that the Acceleometer output is a low impedance voltage, and the signal can be read directly.DC power supply and signal use the same cable

High sensitivity monoaxial accelerometer（IEPE）

				
Model		**V117E**	**V117E.2**	**V117E.5**
Sensitivity		1V/g	2V/g	5V/g
Range		±5gpk	±2.5gpk	±1gpk
Resolution		0.00001grms	0.000005grms	0.000002grms
Frequency Response	±5%	0.5-1kHz	0.5-500Hz	0.5-500Hz
	±10%	0.3-2kHz	0.3-800Hz	0.3-800Hz
Resonant Frequency		＞8kHz	＞8kHz	＞8kHz
Linearity		≤1%	≤1%	≤1%
Horizontal Sensitivity		≤5%	≤5%	≤5%
Temperature range		-55~+120℃	-55~+120℃	-55~+120℃
Sensing element		Ceramic/Shear	Ceramic/Shear	Ceramic/Shear
Connector		2 core MIL-C-5015	2 core MIL-C-5015	2 core MIL-C-5015
Electrical isolation		Isolation	Isolation	Isolation
Case material		Titanium	Titanium	Titanium
Sealing		Laser welding	Laser welding	Laser welding
Weight		98g	106g	200g
Size		Φ25 X 48.5	Φ28 X 48.5	Φ33 X 58
Mounting		1/4-28 Screw hole	1/4-28 Screw hole	1/4-28 Screw hole

Note: [1] IEPE accelerometer excitation voltage 18-28VDC, excitation current 2-10mA
bias voltage 11±1.5V

Size Unit: mm

HIGH SENSITIVITY ACCELEROMETERS

- The IEPE accelerometer integrated the impedance converter and Sensing Element, so that the Acceleometer output is a low impedance voltage, and the signal can be read directly.DC power supply and signal use the same cable

High-Sensitivity Triaxial Accelerometer（IEPE）

				
Model		**V311E.05**	**V311E**	**V323E**
Sensitivity		500mV/g	1V/g	1V/g
Range		±10gpk	±5gpk	±5gpk
Resolution		0.00002grms	0.00001grms	0.00001grms
Frequency Response	±5%	0.5-2000Hz	0.5-2000Hz	0.5-800Hz
	±10%	0.3-3000Hz	0.3-3000Hz	0.3-1000Hz
Resonant Frequency		＞13kHz	＞13kHz	＞8kHz
Linearity		≤1%	≤1%	≤1%
Horizontal Sensitivity		≤5%	≤5%	≤5%
Temperature range		-50~+120℃	-50~+120℃	-50~+120℃
Sensing element		Ceramic/Shear	Ceramic/Shear	Ceramic/Shear
Connector		1/4-28 4 Pin	1/4-28 4 Pin	1/4-28 4 pin
Electrical isolation		-	-	-
Case material		Titanium	Titanium	Titanium
Sealing		Laser welding	Laser welding	Laser welding
Weight		31g	31g	172g
Size		18.5X18.5X16.5	18.5X18.5X16.5	45X45X21
Mounting		10-32 Screw hole	10-32 Screw hole	Φ6 Through-hole

Note: [1] IEPE accelerometer excitation voltage 18-28VDC, excitation current 2-10mA
bias voltage 11±1.5V

Size Unit: mm

WTS TECHNOLOGY

MINIATURE ACCELEROMETERS

The miniature accelerometer boasts a small, lightweight design. All shear accelerometer components are housed in a high-strength, lightweight, laser-welded titanium alloy shell, effectively minimizing the impact of added mass on the test structure and preventing any alteration to the dynamic behavior of the object due to inertial force. In small structure vibration tests, the sensor's mass significantly influences the test results. The sensor's added mass may alter the natural response of the structure or the damping of the test sample.

Product features:

Compact and lightweight design;

Minimizes additional mass;

Offers multiple sensitivity options.

Application scenarios：

Circuit board testing;

Small structure testing;

Component testing, modal testing;

Component validation.








MINIATURE ACCELEROMETERS

■ The charged output accelerometer needs to connect the low noise cable, and then connect to the charge amplifier, impedance converter or signal analysis instrument supporting the charge input type.

Miniature monoaxial accelerometer(PE)

						
Model		**X111C**	**X112C**	**X122C**	**X113C**	**X113C.2**
Sensitivity		10pC/g	10pC/g	10pC/g	3pC/g	6pC/g
Range		±500 gpk MAX 1, 000gpk	±500gpk MAX 1, 000gpk	±500gpk MAX 1, 000gpk	±2,000gpk	±800gpk MAX 2, 000gpk
Resolution		-	-	-	-	-
Frequency Response	±5%	10kHz	10kHz	10kHz	11kHz	10kHz
	±10%	11kHz	11kHz	11kHz	12kHz	11kHz
Resonant Frequency		＞45kHz	＞45kHz	＞45kHz	＞40kHz	＞40kHz
Linearity		≤1%	≤1%	≤1%	≤1%	≤1%
Horizontal Sensitivity		≤5%	≤5%	≤5%	≤5%	≤5%
Temperature range		-55~+160℃	-55~+160℃	-55~+160℃	-55~+160℃	-55~+160℃
Sensing element		Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear
Connector		10-32 Side	10-32Top	10-32 Side	6-40 Side	6-40 Side
Electrical isolation		-	-	-	-	-
Case material		Titanium	Titanium	Titanium	Titanium	Titanium
Sealing		Laser welding	Laser welding	Laser welding	Laser welding	Laser welding
Weight		5g	4.2g	4.2g	1.1g	2g
Size		10.2 Cube	Φ9.5 X18	Φ9.5 X11	Φ8.5 X5.1	Φ8.5 X5.1
Mounting		5-40 Screw hole	10-32 Screw hole	5-40 Screw hole	Adhesive	Adhesive

Note: [1] Charged acclerometer output impedance≥1X10^{11}Ω,
[2] Low-frequency response depends on the decision of external conditioning equipment

Size Unit: mm

WTS TECHNOLOGY

MINIATURE ACCELEROMETERS

■ The IEPE sensor integrated the impedance converter and Sensing Element, so that the Acceleometer output is a low impedance voltage, and the signal can be read directly.DC power supply and signal use the same cable

Miniature monoaxial accelerometer(IEPE)

						
Model		**X111E**	**X111E.5**	**X111E.6**	**X112E**	**X112E.2**
Sensitivity		10mV/g	50mV/g	100mV/g	10mV/g	20mV/g
Range		±500gpk	±100gpk	±50gpk	±500gpk	±250gpk
Resolution		0.001grms	0.0002grms	0.0001grms	0.001grms	0.0005grms
Frequency Response	±5%	1-10kHz	1-8kHz	1-8kHz	1-10kHz	1-10kHz
	±10%	0.5-11kHz	0.5-10kHz	0.5-10kHz	0.5-12kHz	0.5-12kHz
Resonant Frequency		＞42kHz	＞42kHz	＞42kHz	＞65kHz	＞35kHz
Linearity		≤1%	≤1%	≤1%	≤1%	≤1%
Horizontal Sensitivity		≤5%	≤5%	≤5%	≤5%	≤5%
Temperature range		-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃
Sensing element		Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear
Connector		10-32 Side	10-32 Side	10-32 Side	10-32 Top	10-32 Top
Electrical isolation		-	-	-	-	-
Case material		Titanium	Titanium	Titanium	Titanium	Titanium
Sealing		Laser welding	Laser welding	Laser welding	Laser welding	Laser welding
Weight		5.2g	5.2g	5.2g	3.2g	3.6g
Size		10.2 Cube	10.2 Cube	10.2 Cube	9.5 X 18	9.5 X 18
Mounting		5-40 Screw hole	5-40 Screw hole	5-40 Screw hole	10-32/5-40 Screw hole	10-32/5-40 Screw hole

Note: [1] Charged acclerometer output impedance≥1X10^{11}Ω,
[2] Low-frequency response depends on the decision of external conditioning equipment

Size Unit: mm

MINIATURE ACCELEROMETERS

- The IEPE sensor integrated the impedance converter and Sensing Element, so that the Acceleometer output is a low impedance voltage, and the signal can be read directly.DC power supply and signal use the same cable

Miniature monoaxial accelerometer(IEPE)

						
Model		**X112E.5**	**X112E.6**	**X113E**	**X113E.5**	**X113E.6**
Sensitivity		50mV/g	100mV/g	10mV/g	50mV/g	100mV/g
Range		±100gpk	±50gpk	±500gpk	±100gpk	±50gpk
Resolution		0.0002grms	0.0001grms	0.001grms	0.0002grms	0.0001grms
Frequency Response	±5%	1-10kHz	1-10kHz	1-11kHz	1-11kHz	1-10kHz
	±10%	0.5-11kHz	0.5-11kHz	0.5-12kHz	0.5-12kHz	0.5-11kHz
Resonant Frequency		＞35kHz	＞35kHz	＞40kHz	＞37kHz	＞35kHz
Linearity		≤1%	≤1%	≤1%	≤1%	≤1%
Horizontal Sensitivity		≤5%	≤5%	≤5%	≤5%	≤5%
Temperature range		-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃
Sensing element		Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear
Connector		10-32 Top	10-32 Top	6-40 Side	6-40 Side	6-40 Side
Electrical isolation		-	-	-	-	-
Case material		Titanium	Titanium	Titanium	Titanium	Titanium
Sealing		Laser welding	Laser welding	Laser welding	Laser welding	Laser welding
Weight		4.3g	4.3g	1.3g	1.3g	1.3g
Size		9.5 X18	9.5 X18	8.5 X5.1	8.5 X5.1	8.5 X5.1
Mounting		10-32/5-40 Screw hole	10-32/5-40 Screw hole	Adhesive/M3 Stud	Adhesive/M3 Stud	Adhesive/M3 Stud

Note: [1] Charged acclerometer output impedance≥1X10^{11}Ω,
[2] Low-frequency response depends on the decision of external conditioning equipment

Size Unit: mm

WTS TECHNOLOGY

MINIATURE ACCELEROMETERS

- The IEPE sensor integrated the impedance converter and Sensing Element, so that the Acceleometer output is a low impedance voltage, and the signal can be read directly.DC power supply and signal use the same cable

Miniature monoaxial accelerometer(IEPE)

						
Model		**X114E**	**X114E.5**	**X114E.6**	**X115E**	**X115E.5**
Sensitivity		10mV/g	50mV/g	100mV/g	10mV/g	50mV/g
Range		±500gpk	±100gpk	±50gpk	±500gpk	±100gpk
Resolution		0.001grms	0.0002grms	0.0001grms	0.001grms	0.0002grms
Frequency Response	±5%	1-10kHz	1-8kHz	1-8kHz	1-11kHz	1-11kHz
	±10%	0.5-12kHz	0.5-10kHz	0.5-10kHz	0.5-12kHz	0.5-12kHz
Resonant Frequency		＞65kHz	＞35kHz	＞35kHz	＞40kHz	＞37kHz
Linearity		≤1%	≤1%	≤1%	≤1%	≤1%
Horizontal Sensitivity		≤5%	≤5%	≤5%	≤5%	≤5%
Temperature range		-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃
Sensing element		Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear
Connector		10-32 Top	10-32 Top	10-32 Top	6-40 Side	6-40 Side
Electrical isolation		-	-	-	-	-
Case material		Titanium	Titanium	Titanium	Titanium	Titanium
Sealing		Laser welding	Laser welding	Laser welding	Laser welding	Laser welding
Weight		2.8g	3.2g	3.2g	1.6g	1.6g
Size		8.5 X16	8.5 X16	8.5 X16	8.5 X 7.0	8.5 X 7.0
Mounting		5-40 Screw hole	5-40 Screw hole	5-40 Screw hole	5-40 Stud	5-40 Stud

Note: [1] Charged acclerometer output impedance≥1X10^{11}Ω,
[2] Low-frequency response depends on the decision of external conditioning equipment

Size Unit: mm

MINIATURE ACCELEROMETERS

- The IEPE sensor integrated the impedance converter and Sensing Element, so that the Acceleometer output is a low impedance voltage, and the signal can be read directly.DC power supply and signal use the same cable

Miniature monoaxial accelerometer(IEPE)

						
Model		**X115E.6**	**X122E**	**X122E.2**	**X122E.5**	**X122E.6**
Sensitivity		100mV/g	10mV/g	20mV/g	50mV/g	100mV/g
Range		±50gpk	±500gpk	±250gpk	±100gpk	±50gpk
Resolution		0.0001grms	0.001grms	0.0005grms	0.0002grms	0.0001grms
Frequency Response	±5%	1-11kHz	1-10kHz	1-10kHz	1-10kHz	1-10kHz
	±10%	0.5-12kHz	0.5-12kHz	0.5-12kHz	0.5-11kHz	0.5-11kHz
Resonant Frequency		＞35kHz	＞65kHz	＞35kHz	＞35kHz	＞35kHz
Linearity		≤1%	≤1%	≤1%	≤1%	≤1%
Horizontal Sensitivity		≤5%	≤5%	≤5%	≤5%	≤5%
Temperature range		-55~+120˚C	-55~+120˚C	-55~+120˚C	-55~+120˚C	-55~+120˚C
Sensing element		Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear
Connector		6-40 Side	10-32 Side	10-32 Side	10-32 Side	10-32 Side
Electrical isolation		-	-	-	-	-
Case material		Titanium	Titanium	Titanium	Titanium	Titanium
Sealing		Laser welding	Laser welding	Laser welding	Laser welding	Laser welding
Weight		1.6g	3.2g	3.6g	4.3g	4.3g
Size		8.5 X 7.0	9.5 X11	9.5 X11	9.5 X11	9.5 X11
Mounting		5-40 Stud	5-40 Screw hole	5-40 Screw hole	5-40 Screw hole	5-40 Screw hole

Note: [1] Charged acclerometer output impedance≥1X10^{11}Ω,
[2] Low-frequency response depends on the decision of external conditioning equipment

Size Unit: mm

WTS TECHNOLOGY

MINIATURE ACCELEROMETERS

- The IEPE sensor integrated the impedance converter and Sensing Element, so that the Acceleometer output is a low impedance voltage, and the signal can be read directly.DC power supply and signal use the same cable

Miniature monoaxial accelerometer(IEPE)

							
Model		**X127EA.05**	**X127EA**	**D128E.05**	**D128E**	**D128E.2**	**D128E.5**
Sensitivity		5mV/g	10mV/g	5mV/g	10mV/g	20mV/g	50mV/g
Range		±1,000gpk	±500gpk	±1,000gpk	±500gpk	±250gpk	±100gpk
Resolution		0.001grms	0.002grms	0.002grms	0.002grms	0.0005grms	0.0002grms
Frequency Response	±5%	1-10kHz	1-10kHz	1-10kHz	1-10kHz	1-10kHz	1-10kHz
	±10%	0.5-13kHz	0.5-13kHz	0.5-12kHz	0.5-12kHz	0.5-12kHz	0.5-12kHz
Resonant Frequency		＞65kHz	＞65kHz	＞50kHz	＞50kHz	＞50kHz	＞50kHz
Linearity		≤1%	≤1%	≤1%	≤1%	≤1%	≤1%
Horizontal Sensitivity		≤5%	≤5%	≤5%	≤5%	≤5%	≤5%
Temperature range		-55~+120˚C	-55~+120˚C	-55~+200˚C	-55~+200˚C	-55~+200˚C	-55~+200˚C
Sensing element		Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear
Connector		Integrated cable	Integrated cable	Integrated cable	Integrated cable	Integrated cable	Integrated cable
Electrical isolation		-	-	-	-	-	-
Case material		Titanium	Titanium	Titanium	Titanium	Titanium	Titanium
Sealing		Laser welding	Laser welding	Laser welding	Laser welding	Laser welding	Laser welding
Weight		1.3g	1.3g	0.35g	0.35g	0.35g	0.35g
Size		7.5 X 8.1	7.5 X 8.1	Φ5.2 X 5.5 X 2.6	Φ5.2 X 5.5 X 2.6	Φ5.2 X 5.5 X 2.6	Φ5.2 X 5.5 X 2.6
Mounting		Adhesive	Adhesive	Adhesive	Adhesive	Adhesive	Adhesive

Note: [1] IEPE accelerometer excitation voltage 18-28VDC, excitation current 2-10mA
bias voltage 11±1.5V

Size Unit: mm

MINIATURE ACCELEROMETERS

- The IEPE sensor integrated the impedance converter and Sensing Element, so that the Acceleometer output is a low impedance voltage, and the signal can be read directly.DC power supply and signal use the same cable

Miniature triaxial accelerometer(IEPE)

							
Model		**X331E.05**	**X331E**	**X331E.2**	**X331E.5**	**X331E.6**	**X331E.7**
Sensitivity		5mV/g	10mV/g	20mV/g	50mV/g	100mV/g	150mV/g
Range		±1,000gpk	±500gpk	±250gpk	±100gpk	±50gpk	±30gpk
Resolution		0.001grms	0.001grms	0.0005grms	0.0002grms	0.0001grms	0.00005grms
Frequency Response	±5%	1-6kHz Z:1-8kHz	1-6kHz Z:1-8kHz	1-6kHz Z:1-8kHz	1-6kHz Z:1-8kHz	1-6kHz Z:1-8kHz	1-5kHz Z:1-8kHz
	±10%	0.5-7kHz Z:0.5-10kHz	0.5-7kHz Z:0.5-10kHz	0.5-7kHz Z:0.5-10kHz	0.5-7kHz Z:0.5-10kHz	0.5-7kHz Z:0.5-10kHz	0.5-7kHz Z:0.5-10kHz
Resonant Frequency		＞45kHz	＞45kHz	＞45kHz	＞45kHz	＞45kHz	＞45kHz
Linearity		≤1%	≤1%	≤1%	≤1%	≤1%	≤1%
Horizontal Sensitivity		≤5%	≤5%	≤5%	≤5%	≤5%	≤5%
Temperature range		-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃
Sensing element		Ceramic/ Shear	Ceramic/ Shear	Ceramic/ Shear	Ceramic/ Shear	Ceramic/ Shear	Ceramic/ Shear
Connector		1/4-28 4 pin	1/4-28 4 pin	1/4-28 4 pin	1/4-28 4 pin	1/4-28 4 pin	1/4-28 4 pin
Electrical isolation		-	-	-	-	-	-
Case material		Titanium	Titanium	Titanium	Titanium	Titanium	Titanium
Sealing		Laser welding	Laser welding	Laser welding	Laser welding	Laser welding	Laser welding
Weight		6.2g	6.2g	6.2g	6.2g	7.7g	8.4g
Size		11.5Cube	11.5Cube	11.5Cube	11.5Cube	11.5Cube	11.5Cube
Mounting		5-40 Screw hole	5-40 Screw hole	5-40 Screw hole	5-40 Screw hole	5-40 Screw hole	5-40 Screw hole

Note: [1] Charged acclerometer output impedance≥1X10^{11}Ω,
[2] Low-frequency response depends on the decision of external conditioning equipment

Size Unit: mm

WTS TECHNOLOGY

MINIATURE ACCELEROMETERS

- The IEPE sensor integrated the impedance converter and Sensing Element, so that the Acceleometer output is a low impedance voltage, and the signal can be read directly.DC power supply and signal use the same cable

Miniature triaxial （High-frequency） acceleration(IEPE)

							
Model		**X331EF**	**X331EF.6**	**X341E.05**	**X341E**	**X341E.5**	**X341E.6**
Sensitivity		10mV/g	100mV/g	5mV/g	10mV/g	50mV/g	100mV/g
Range		±500gpk	±50gpk	±1,000gpk	±500gpk	±100gpk	±50gpk
Resolution		0.001grms	0.0001grms	0.001grms	0.001grms	0.0002grms	0.0001grms
Frequency Response	±5%	1-9kHz	1-9kHz	1-9kHz	1-9kHz	1-9kHz	1-9kHz
	±10%	0.5-10kHz	0.5-10kHz	0.5-10kHz	0.5-10kHz	0.5-10kHz	0.5-10kHz
Resonant Frequency		＞45kHz	＞45kHz	＞45kHz	＞45kHz	＞45kHz	＞45kHz
Linearity		≤1%	≤1%	≤1%	≤1%	≤1%	≤1%
Horizontal Sensitivity		≤5%	≤5%	≤5%	≤5%	≤5%	≤5%
Temperature range		-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃
Sensing element		Ceramic/ Shear	Ceramic/ Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear
Connector		1/4-28 4 pin	1/4-28 4 pin	1/4-28 4 pin	1/4-28 4 pin	1/4-28 4 pin	1/4-28 4 pin
Electrical isolation		-	-	-	-	-	-
Case material		Titanium	Titanium	Titanium	Titanium	Titanium	Titanium
Sealing		Laser welding	Laser welding	Laser welding	Laser welding	Laser welding	Laser welding
Weight		6.2g	6.2g	3.6g	3.6g	3.7g	3.7g
Size		11.5Cube	11.5Cube	9.5Cube	9.5Cube	9.5Cube	9.5Cube
Mounting		2 X 5-40 Screw hole		5-40 Screw hole	5-40 Screw hole	5-40 Screw hole	5-40 Screw hole

Note: [1] Charged acclerometer output impedance≥1X10^{11}Ω,
[2] Low-frequency response depends on the decision of external conditioning equipment

Size Unit: mm

MINIATURE ACCELEROMETERS

- The IEPE sensor integrated the impedance converter and Sensing Element, so that the Acceleometer output is a low impedance voltage, and the signal can be read directly.DC power supply and signal use the same cable

Miniature triaxial accelerometer(IEPE)

					
Model		**X351E**	**X351E.2**	**X351E.5**	**X351E.6**
Sensitivity		10mV/g	20mV/g	50mV/g	100mV/g
Range		±500gpk	±250gpk	±100gpk	±50gpk
Resolution		0.001grms	0.0005grms	0.0002grms	0.0001grms
Frequency Response	±5%	1-10kHz	1-10kHz	1-10kHz	1-9kHz
	±10%	0.5-11kHz	0.5-11kHz	0.5-11kHz	0.5-10kHz
Resonant Frequency		＞78kHz	＞38kHz	＞38kHz	＞38kHz
Linearity		≤1%	≤1%	≤1%	≤1%
Horizontal Sensitivity		≤5%	≤5%	≤5%	≤5%
Temperature range		-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃
Sensing element		Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear
Connector		1/4-28 4 pin	1/4-28 4 pin	1/4-28 4 pin	1/4-28 4 pin
Electrical isolation		-	-	-	-
Case material		Titanium	Titanium	Titanium	Titanium
Sealing		Laser welding	Laser welding	Laser welding	Laser welding
Weight		4.3g	4.6g	4.6g	4.6g
Size		10.2Cube	10.2Cube	10.2Cube	10.2Cube
Mounting		5-40 Screw hole	5-40 Screw hole	5-40 Screw hole	5-40 Screw hole

Note: [1] Charged acclerometer output impedance≥1X10^{11}Ω,
[2] Low-frequency response depends on the decision of external conditioning equipment

Size Unit: mm

WTS TECHNOLOGY

MINIATURE ACCELEROMETERS

- The IEPE sensor integrated the impedance converter and Sensing Element, so that the Acceleometer output is a low impedance voltage, and the signal can be read directly.DC power supply and signal use the same cable

Miniature triaxial accelerometer(IEPE)

						
Model		**W316E.02**	**W316E.05**	**W316E**	**W316E.2**	**W316E.5**
Sensitivity		2.5mV/g	5mV/g	10mV/g	20mV/g	50mV/g
Range		±2,000gpk	±1,000gpk	±500gpk	±250gpk	±100gpk
Resolution		0.002grms	0.002grms	0.002grms	0.0005grms	0.0002grms
Frequency Response	±5%	1-10kHz	1-10kHz	1-10kHz	1-10kHz	1-10kHz
	±10%	0.5-11kHz	0.5-11kHz	0.5-11kHz	0.5-11kHz	0.5-11kHz
Resonant Frequency		＞50kHz	＞50kHz	＞50kHz	＞50kHz	＞50kHz
Linearity		≤1%	≤1%	≤1%	≤1%	≤1%
Horizontal Sensitivity		≤5%	≤5%	≤5%	≤5%	≤5%
Temperature range		-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃
Sensing element		Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear
Connector		Integrated cable	Integrated cable	Integrated cable	Integrated cable	Integrated cable
Electrical isolation		-	-	-	-	-
Case material		Titanium	Titanium	Titanium	Titanium	Titanium
Sealing		Laser welding	Laser welding	Laser welding	Laser welding	Laser welding
Weight		1 g	1 g	1 g	1 g	1 g
Size		6.5Cube	6.5Cube	6.5Cube	6.5Cube	6.5Cube
Mounting		Adhesive	Adhesive	Adhesive	Adhesive	Adhesive

Note: [1] Charged acclerometer output impedance≥1X10^{11}Ω,
[2] Low-frequency response depends on the decision of external conditioning equipment

Size Unit: mm

INDUSTRIAL ACCELEROMETERS

Industrial accelerometers are constructed from stainless steel with double shielding (isolation) and sealed via laser welding, rendering them waterproof and resistant to oil. This design ensures long-term reliability and stability in harsh industrial environments

Product features:

Waterproof and resistant to oil ingress

Low noise and high resistance to electromagnetic interference

Suitable for remote measurement and data transmission

Capable of utilizing integral or armored cabling

Designed for prolonged online monitoring

Application scenarios：

Monitoring and protectivemeasures for rotating machinery such as water pumps, fans, compressors, as well as related applications in power plants, cement factories, and glass manufacturing facilities.

INDUSTRIAL ACCELEROMETERS

- The IEPE sensor integrated the impedance converter and Sensing Element, so that the Acceleometer output is a low impedance voltage, and the signal can be read directly.DC power supply and signal use the same cable

Industrial accelerometer(IEPE)

					
Model		**G112E**	**G115E**	**G115E.5**	**G115L**
Sensitivity		100mV/g	100mV/g	500mV/g	100mV/g
Range		±50gpk	±50gpk	±10gpk	±50gpk
Resolution		0.0001grms	0.0001grms	0.00005grms	0.0001grms
Frequency Response	±5%	1-6kHz	1-8kHz	1-8kHz	1-8kHz
	±10%	0.5-8kHz	0.5-10kHz	0.5-10kHz	0.5-10kHz
	±3dB	0.4-13kHz	0.3-16kHz	0.3-16kHz	0.3-16kHz
Resonant Frequency		＞25kHz	＞35kHz	＞35kHz	＞35kHz
Linearity		≤1%	≤1%	≤1%	≤1%
Horizontal Sensitivity		≤5%	≤5%	≤5%	≤5%
Temperature range		-40~+120℃	-50~+120℃	-50~+120℃	-50~+120℃
Sensing element		Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear
Connector		MIL-C-5015 2 pin	MIL-C-5015 2 pin	MIL-C-5015 2 pin	MIL-C-5015 2 pin
Electrical isolation		Isolation	Isolation	Isolation	Isolation
Case material		Stainless steel	Stainless steel	Stainless steel	Stainless steel
Sealing		Laser welding	Laser welding	Laser welding	Laser welding
Weight		62g	62g	62g	47.5g
Size		Φ18X47	Φ20 X47	Φ20 X47	Φ20 X42
Mounting		1/4-28UNF Screw hole	1/4-28UNF Screw hole		1/4-28UNF Screw hole

Note: [1] Charged acclerometer output impedance≥1X10^{11}Ω,
[2] Low-frequency response depends on the decision of external conditioning equipment

Size Unit: mm

INDUSTRIAL ACCELEROMETERS

■ The IEPE sensor integrated the impedance converter and Sensing Element, so that the Acceleometer output is a low impedance voltage, and the signal can be read directly.DC power supply and signal use the same cable

Industrial accelerometer(IEPE)

			
Model		**G125E**	**G125E.5**
Sensitivity		100mV/g	500mV/g
Range		±50gpk	±10gpk
Resolution		0.0001grms	0.00005grms
Frequency Response	±5%	1-8kHz	1-8kHz
	±10%	0.5-10kHz	0.5-10kHz
	±3dB		-
Resonant Frequency		＞25kHz	＞25kHz
Linearity		≤1%	≤1%
Horizontal Sensitivity		≤5%	≤5%
Temperature range		-50~+120℃	-50~+120℃
Sensing element		Ceramic/Shear	Ceramic/Shear
Connector		MIL-C-5015 2 pin	MIL-C-5015 2 pin
Electrical isolation		Isolation	Isolation
Case material		Stainless steel	Stainless steel
Sealing		Laser welding	Laser welding
Weight		62g	62g
Size		45.8 X20 X25	45.8 X20 X25
Mounting		Φ6.1 Through hole	Φ6.1 Through hole

Note: [1] Charged acclerometer output impedance≥1X10^{11}Ω,
[2] Low-frequency response depends on the decision of external conditioning equipment

Size Unit: mm

HIGH TEMPERATURE ACCELEROMETERS

High-temperature accelerometers utilize a piezoelectric ceramic element known for its exceptional temperature characteristics as the sensitive component. This type of sensor boasts a wide frequency band, high sensitivity, simple yet robust structure, reliable operation, and lightweight design. Specifically designed for aeroengine applications, the high-temperature piezoelectric acceleration sensor is utilized for vibration measurement, meeting the stringent requirements posed by complex vibration and the harsh operational conditions encountered in aeroengine environments.

Product features:

Operating temperature can reach 482℃;

Defined structural design;

Reliable and lightweight.

Application scenarios:

High temperature vibration test,
Steam turbine test,
Aeroengine structure research,
Exhaust component vibration test,
Engine vibration analysis and other high temperature occasions.

HIGH TEMPERATURE ACCELEROMETERS

■ The charged output accelerometer needs to connect the low noise cable, and then connect to the charge amplifier, impedance converter or signal analysis instrument supporting the charge input type.

High temperature accelerometer (PE)

						
Model		**H112C**	**H112C.2**	**H112C.3**	**H112C.5**	**H122C**
Sensitivity		10pC/g	20pC/g	30pC/g	50pC/g	10pC/g
Range		±500gpk MAX 1,500gpk	±250gpk MAX 1,000gpk	±160gpk MAX 1,000gpk	±100gpk MAX 1,000gpk	±500gpk MAX 1,500gpk
Resolution		-	-	-	-	-
Frequency Response	±5%	10kHz	8kHz	8kHz	5kHz	10kHz
	±10%	11kHz	10kHz	10kHz	6kHz	11kHz
Resonant Frequency		＞45kHz	＞45kHz	＞30kHz	＞29kHz	＞45kHz
Linearity		≤1%	≤1%	≤1%	≤1%	≤1%
Horizontal Sensitivity		≤5%	≤5%	≤5%	≤5%	≤5%
Temperature range		-55~+250℃ (-70° C optional)	-55~+250℃ (-70° C optional)	-55~+250℃ (-70° C optional)	-55~+250℃ (-70° C optional)	-55~+250℃ (-70° C optional)
Sensing element		Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear
Connector		10-32 Top	10-32 Top	10-32 Top	10-32 Top	10-32 Side
Electrical isolation		-	-	-	-	-
Case material		Titanium	Titanium	Titanium	Titanium	Titanium
Sealing		Laser welding	Laser welding	Laser welding	Laser welding	Laser welding
Weight		6.3g	12.5g	12.5g	20.5g	6.3g
Size		11 X22	13 X25.5	13 X25.5	16 X27.5	11 X16
Mounting		10-32 Screw hole	10-32 Screw hole	10-32 Screw hole	10-32 Screw hole	10-32 Screw hole

Note: [1] Charged acclerometer output impedance≥1X10^{11}Ω,
[2] Low-frequency response depends on the decision of external conditioning equipment

Size Unit: mm

WTS TECHNOLOGY

HIGH TEMPERATURE ACCELEROMETERS

■ The charged output accelerometer needs to connect the low noise cable, and then connect to the charge amplifier, impedance converter or signal analysis instrument supporting the charge input type.

High temperature accelerometer (PE)

						
Model		**H122C.2**	**H122C.3**	**H122C.5**	**H114C.05**	**H127C**
Sensitivity		20pC/g	30pC/g	50pC/g	5pC/g	10pC/g
Range		±250gpk MAX 1,000gpk	±160gpk MAX 1,000gpk	±100gpk MAX 1,000gpk	±1,000gpk MAX 2,000gpk	±500gpk MAX 2,000gpk
Resolution		-	-	-	-	-
Frequency Response	±5%	8kHz	8kHz	5kHz	8kHz	4kHz
	±10%	10kHz	10kHz	6kHz	10kHz	5kHz
Resonant Frequency		＞45kHz	＞30kHz	＞29kHz	＞35kHz	＞25kHz
Linearity		≤1%	≤1%	≤1%	≤1%	≤1%
Horizontal Sensitivity		≤5%	≤5%	≤5%	≤5%	≤5%
Temperature range		-55~+250℃ (-70° C optional)	-55~+250℃ (-70° C optional)	-55~+250℃ (-70° C optional)	-55~+250℃	-70~+482℃
Sensing element		Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear
Connector		10-32 Side	10-32 Side	10-32 Side	10-32 Top	Differential 2 pin
Electrical isolation		-	-	-	-	-
Case material		Titanium	Titanium	Titanium	Titanium	Titanium
Sealing		Laser welding	Laser welding	Laser welding	Laser welding	Laser welding
Weight		12.5g	12.5g	20.5g	3.2g	65g
Size		13 X19	13 X19	16 X 22	8.5 X16	43X26
Mounting		10-32 Screw hole	10-32 Screw hole	10-32 Screw hole	5-40 Screw hole	3-Φ4.8 Through hole

Note: [1] Charged acclerometer output impedance≥1X10^{11}Ω,
[2] Low-frequency response depends on the decision of external conditioning equipment

Size Unit: mm

HIGH TEMPERATURE ACCELEROMETERS

- The charged output accelerometer needs to connect the low noise cable, and then connect to the charge amplifier, impedance converter or signal analysis instrument supporting the charge input type.

High temperature accelerometer (PE)		High-Temperature Triaxial Accelerometer			
					
Model	**H121CB**	**H313C.05**	**H313C**	**H318C.05**	**H318C**
Sensitivity	6pC/g	5pC/g	10pC/g	5pC/g	10pC/g
Range	±833gpk MAX 2,000gpk	±1,000gpk MAX 2,000gpk	±500gpk MAX 2,000gpk	±1,000gpk MAX 2,000gpk	±500gpk MAX 2,000gpk
Resolution	-	-	-	-	-
Frequency Response ±5%	10kHz	7kHz	7kHz	7kHz	7kHz
Frequency Response ±10%	11kHz	8kHz	8kHz	8kHz	8kHz
Resonant Frequency	＞45kHz	＞25kHz	＞25kHz	＞29kHz	＞29kHz
Linearity	≤1%	≤1%	≤1%	≤1%	≤1%
Horizontal Sensitivity	≤5%	≤5%	≤5%	≤5%	≤5%
Temperature range	-55~+250℃	-55~+250℃ (-70° C optional)	-55~+250℃ (-70° C optional)	-55~+250℃ (-70° C optional)	-55~+250℃ (-70° C optional)
Sensing element	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear
Connector	10-32 Side	3*10-32	3*10-32	3*10-32	3*10-32
Electrical isolation	-	-	-	-	-
Case material	Titanium	Titanium	Titanium	Titanium	Titanium
Sealing	Laser welding	Laser welding	Laser welding	Laser welding	Laser welding
Weight	2.8g	25g	25g	14g	14g
Size	8.5 X 8.5 X6.6	26X19X12.5	26X19X12.5	16X16X 9	16X16X9
Mounting	5-40 Bolt	2-Φ4 Through hole	2-Φ4 Through hole	Φ4.1 Through hole	Φ4.1 Through hole

Note: [1] Charged acclerometer output impedance≥1X10^{11}Ω,
[2] Low-frequency response depends on the decision of external conditioning equipment

Size Unit: mm

WTS TECHNOLOGY

HIGH TEMPERATURE ACCELEROMETERS

- The charged output accelerometer needs to connect the low noise cable, and then connect to the charge amplifier, impedance converter or signal analysis instrument supporting the charge input type.

	High-Temperature Triaxial High-Frequency Accelerometer				
					
Model	**H318C.2**	**H112CF.03**	**H112CF.05**	**H122CF.03**	**H122CF.05**
Sensitivity	20pC/g	3pC/g	5pC/g	3pC/g	5pC/g
Range	±250gpk MAX 2,000gpk	±1,670gpk MAX 2,000gpk	±1,000gpk MAX 2,000gpk	±1, 670gpk MAX 2, 000gpk	±1, 000gpk MAX 2, 000gpk
Resolution	-	-	-	–	–
Frequency Response ±5%	5kHz	20kHz	15kHz	20kHz	15kHz
Frequency Response ±10%	7kHz	25kHz	20kHz	25kHz	20kHz
Resonant Frequency	＞29kHz	＞65kHz	＞65kHz	＞65kHz	＞65kHz
Linearity	≤1%	≤1%	≤1%	≤1%	≤1%
Horizontal Sensitivity	≤5%	≤5%	≤5%	≤5%	≤5%
Temperature range	-55~+250℃ (-70° C optional)	-55~+250℃ (-70° C optional)	-55~+250℃ (-70° C optional)	-55~+250℃ (-70° C optional)	-55~+250℃ (-70° C optional)
Sensing element	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear
Connector	3*10-32	10-32 Top	10-32 Top	10-32 Top	10-32 Top
Electrical isolation	-	-	-	-	-
Case material	Titanium	Titanium	Titanium	Titanium	Titanium
Sealing	Laser welding	Laser welding	Laser welding	Laser welding	Laser welding
Weight	14g	5.5g	5.5g	5.5g	5.5g
Size	16X16X9	11×22	11×22	11×16	11×16
Mounting	Φ4.1 Through hole	10-32 Screw hole	10-32 Screw hole	10-32 Screw hole	10-32 Screw hole

Note: [1] Charged acclerometer output impedance≥1X10^{11}Ω,
[2] Low-frequency response depends on the decision of external conditioning equipment

Size Unit: mm

MEMS ACCELEROMETER

Micro-capacitive MEMS accelerometers utilize the micro-capacitive acceleration sensing core of MEMS technology. The perceived acceleration signal is converted into a voltage output signal. These accelerometers are designed with a floating ground, and the mounting surface is insulated from the signal ground.

Product features:

Capable of a wide range of dynamic measurements

Long-lasting operational capability

Wide frequency range,

High signal-to-noise ratio.

Application scenarios:

Low-frequency dynamic testing Steady linear acceleration flight testing

Transportation environment simulation for road load

Measurement of inclination

MEMS ACCELEROMETERS

MEMS Single-Axis Zero-Frequency Accelerometer

						
Model		**M122E.017**	**M122E.05**	**M122E.18**	**M122E.50**	**M122E.100**
Sensitivity		1000mV/g	312mV/g	100mV/g	40mV/g	20mV/g
Range		±1.7gpk	±5gpk	±18gpk	±50gpk	±100gpk
Frequency Response	±5%	0-3000Hz	0-3000Hz	0-3000Hz	0-4000Hz	0-4000Hz
	±10%	0-3200Hz	0-3200Hz	0-3200Hz	0-5000Hz	0-5000Hz
Background Noise (μg/√Hz)		110	130	230	25	30
Nonlinear		≤0.1%	≤0.1%	≤0.1%	≤0.1%	≤0.1%
Lateral Sensitivity		≤3%	≤3%	≤3%	≤3%	≤3%
Temperature range		-40~+125℃	-40~+125℃	-40~+125℃	-40~+125℃	-40~+125℃
Sensitive Component		MEMS	MEMS	MEMS	MEMS	MEMS
Output Voltage Range		8~24VDC	8~24VDC	8~24VDC	8~12VDC	8~12VDC
Operating Current		≤1.1mA	≤1.1mA	≤1.1mA	≤1.1mA	≤1.1mA
Connector		1/4-28 4 pin	1/4-28 4 pin	1/4-28 4 pin	1/4-28 4 pin	1/4-28 4 pin
Insulation Resistance		$\geq 1\times10^{8}$	$\geq 1\times10^{8}$	$\geq 1\times10^{8}$	$\geq 1\times10^{8}$	$\geq 1\times10^{8}$
Case Material		Titanium	Titanium	Titanium	Titanium	Titanium
Sealing		Laser welding	Laser welding	Laser welding	Laser welding	Laser welding
Weight		10.5g	10.5g	10.5g	10.5g	10.5g
Size		Φ16X22.5	Φ16X22.5	Φ16X22.5	Φ16X22.5	Φ16X22.5
Mounting		10-32 Screw hole	10-32 Screw hole	10-32 Screw hole	10-32 Screw hole	10-32 Screw hole

Note: [1]The default single-axis MEMS accelerometer has a differential output, with a bias voltage of 2.5V, and a single-ended output is optional.

Size:mm

MEMS ACCELEROMETERS

MEMS Three-Axis Zero-Frequency Accelerometer

								
Model		**M321E.017**	**M321E.05**	**M321E.18**	**M321E.50**	**M321E.100**	**M322E**	**M322E.20**
Sensitivity		1,000mV/g	312mV/g	100mV/g	40mV/g	20mV/g	80mV/g	40mV/g
Range		±1.7gpk	±5gpk	±18gpk	±50gpk	±100gpk	±10gpk	±20gpk
Frequency Response	±5%	0-3000Hz	0-3000Hz	0-3000Hz	0-4000 Hz	0-4000 Hz	0-500Hz	0-500Hz
	±10%	0-3200Hz	0-3200Hz	0-3200Hz	0-5000 Hz	0-5000 Hz	0-800Hz	0-800Hz
Background Noise (μg/√Hz)		110	130	230	25	30	75	95
Nonlinear		≤0.1%	≤0.1%	≤0.1%	≤0.1%	≤0.1%	≤0.1%	≤0.1%
Lateral Sensitivity		≤3%	≤3%	≤3%	≤3%	≤3%	≤3%	≤3%
Temperature range		-40~+125℃	-40~+125℃	-40~+125℃	-40~+125℃	-40~+125℃	-40~+125℃	-40~+125℃
Sensitive Component		MEMS	MEMS	MEMS	MEMS	MEMS	MEMS	MEMS
Output Voltage Range		8~24VDC	8~24VDC	8~24VDC	8-12VDC	8-12VDC	8~24VDC	8~24VDC
Operating Current		≤1.1mA	≤1.1mA	≤1.1mA	≤1.1mA	≤1.1mA	≤1.1mA	≤1.1mA
Connector		5/16-32 9pin	5/16-32 9pin	5/16-32 9pin	5/16-32 9pin	5/16-32 9pin	1/4-28 6pin	1/4-28 6pin
Insulation Resistance		-	-	-	-	-	-	-
Case Material		Titanium	Titanium	Titanium	Titanium	Titanium	Titanium	Titanium
Sealing		Laser welding	Laser welding	Laser welding	Laser welding	Laser welding	Laser welding	Laser welding
Weight		22.4g	22.4g	22.4g	22.4g	22.4g	11g	11g
Size		18Cube	18Cube	18Cube	18Cube	18Cube	18X18X16	18X18X16
Mounting		10-32 Screw hole	10-32 Screw hole	10-32 Screw hole	10-32 Screw hole	10-32 Screw hole	2-Φ4.1 Through hole	2-Φ4.1 Through hole

Note: [1]The default single-axis MEMS accelerometer has a differential output, with a bias voltage of 2.5V, and a single-ended output is optional.

Size:mm

WTS TECHNOLOGY

MEMS ACCELEROMETERS

MEMS Three-Axis Zero-Frequency Accelerometer

							
Model		**M322E.40**	**M323E.017**	**M323E.05**	**M323E.18**	**M323E.50**	**M323E.100**
Sensitivity		20mV/g	1000mV/g	312mV/g	100mV/g	40mV/g	20mV/g
Range		±40gpk	±1.7gpk	±5gpk	±18gpk	±50gpk	±100gpk
Frequency Response	±5%	0-500Hz	0-3000Hz	0-3000Hz	0-3000Hz	0-4000 Hz	0-4000 Hz
	±10%	0-800Hz	0-3200Hz	0-3200Hz	0-3200Hz	0-5000 Hz	0-5000 Hz
Background Noise (μg/√Hz)		110	110	130	230	25	30
Nonlinear		≤0.1%	≤0.1%	≤0.1%	≤0.1%	≤0.1%	≤0.1%
Lateral Sensitivity		≤3%	≤3%	≤3%	≤3%	≤3%	≤3%
Temperature range		-40~+125℃	-40~+125℃	-40~+125℃	-40~+125℃	-40~+125℃	-40~+125℃
Sensitive Component		MEMS	MEMS	MEMS	MEMS	MEMS	MEMS
Output Voltage Range		8~24VDC	8~24VDC	8~24VDC	8~24VDC	8-12VDC	8-12VDC
Operating Current		≤1.1mA	≤1.1mA	≤1.1mA	≤1.1mA	≤1.1mA	≤1.1mA
Connector		1/4-28 6pin	5/16-32 9pin	5/16-32 9pin	5/16-32 9pin	5/16-32 9pin	5/16-32 9pin
Insulation Resistance		-	-	-	-	-	-
Case Material		Titanium	Titanium	Titanium	Titanium	Titanium	Titanium
Sealing		Laser welding	Laser welding	Laser welding	Laser welding	Laser welding	Laser welding
Weight		11g	22.4g	22.4g	22.4g	22.4g	22.4g
Size		18X18X16	23X23X20	23X23X20	23X23X20	23X23X20	23X23X20
Mounting		2-Φ4.1 Through hole	2-Φ4.1 Through hole	2-Φ4.1 Through hole	2-Φ4.1 Through hole	2-Φ4.1 Through hole	2-Φ4.1 Through hole

Note: [1]The default single-axis MEMS accelerometer has a differential output, with a bias voltage of 2.5V, and a single-ended output is optional.

Size:mm

MODAL TESTING ACCELEROMETERS

In structural dynamic characteristics measurement, the excitation is applied to the test object, and the response of the structure to the excitation is measured. The excitation and response data are then processed to obtain the dynamic characteristics of the structure. In practical use, the relative phase error between different measurement point sensors is more important than the actual phase differences of each sensor. Typically, engineering modal experiments require the relative phase error of sensors to be within ±3°-5°.

Product features:

Low relative phase error

Lightweight

High resolution

Application scenarios：

Low-frequency structural dynamic testing

Structural dynamic characteristics testing

Modal analysis

MODAL TESTING ACCELEROMETERS

- The IEPE sensor integrated the impedance converter and Sensing Element, so that the Acceleometer output is a low impedance voltage, and the signal can be read directly.DC power supply and signal use the same cable

Modal monoaxail accelerometer(IEPE)

						
Model		**MT111E.6**	**MT112E**	**MT112E.2**	**MT112E.5**	**MT112E.6**
Sensitivity		100mV/g	10mV/g	20mV/g	50mV/g	100mV/g
Range		±50gpk	±500gpk	±250gpk	±100gpk	±50gpk
Resolution		0.0001grms	0.001grms	0.0005grms	0.0002grms	0.0001grms
Frequency Response	±5%	1-9kHz	1-10kHz	1-10kHz	1-10kHz	1-10kHz
	±10%	0.5-11kHz	0.5-11kHz	0.5-11kHz	0.5-11kHz	0.5-11kHz
Resonant Frequency		＞30kHz	＞42kHz	＞42kHz	＞42kHz	＞42kHz
Linearity		≤1%	≤1%	≤1%	≤1%	≤1%
Horizontal Sensitivity		≤5%	≤5%	≤5%	≤5%	≤5%
Temperature range		-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃
Sensing element		Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear
Connector		10-32 Side	10-32 Top	10-32 Top	10-32 Top	10-32 Top
Electrical isolation		-	-	-	-	-
Case material		Titanium	Titanium	Titanium	Titanium	Titanium
Sealing		Laser welding	Laser welding	Laser welding	Laser welding	Laser welding
Weight		5.2g	6.3g	6.3g	6.3g	6.3g
Size		10.2X10.2X10.2	11X22	11X22	11X22	11X22
Mounting		5-40 Screw hole	10-32 Screw hole	10-32 Screw hole	10-32 Screw hole	10-32 Screw hole

Note: [1] IEPE accelerometer excitation voltage 18-28VDC, excitation current 2-10mA
bias voltage 11±1.5V

Size:mm

MODAL TESTING ACCELEROMETERS

- The IEPE sensor integrated the impedance converter and Sensing Element, so that the Acceleometer output is a low impedance voltage, and the signal can be read directly.DC power supply and signal use the same cable

Modal monoaxail accelerometer(IEPE)





Model		MT112E.7	MT112E.8	MT122E	MT122E.2	MT122E.5
Sensitivity		200mV/g	300mV/g	10mV/g	20mV/g	50mV/g
Range		±25gpk	±16gpk	±500gpk	±250gpk	±100gpk
Resolution		0.00005grms	0.00002grms	0.001grms	0.0005grms	0.0002grms
Frequency Response	±5%	1-7kHz	1-6kHz	1-10kHz	1-10kHz	1-10kHz
	±10%	0.5-8kHz	0.5-7kHz	0.5-11kHz	0.5-11kHz	0.5-11kHz
Resonant Frequency		＞27kHz	＞23kHz	＞42kHz	＞42kHz	＞42kHz
Linearity		≤1%	≤1%	≤1%	≤1%	≤1%
Horizontal Sensitivity		≤5%	≤5%	≤5%	≤5%	≤5%
Temperature range		-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃
Sensing element		Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear
Connector		10-32 Top	10-32 Top	10-32 Side	10-32 Side	10-32 Side
Electrical isolation		-	-	-	-	-
Case material		Titanium	Titanium	Titanium	Titanium	Titanium
Sealing		Laser welding	Laser welding	Laser welding	Laser welding	Laser welding
Weight		14g	22g	6.3g	6.3g	6.3g
Size		13X25	16X27.5	11X16	11X16	11X16
Mounting		10-32 Screw hole	10-32 Screw hole	10-32 Screw hole	10-32 Screw hole	10-32 Screw hole

Note: [1] IEPE accelerometer excitation voltage 18-28VDC, excitation current 2-10mA
bias voltage 11±1.5V

Size:mm

WTS TECHNOLOGY

MODAL TESTING ACCELEROMETERS

- The IEPE sensor integrated the impedance converter and Sensing Element, so that the Acceleometer output is a low impedance voltage, and the signal can be read directly.DC power supply and signal use the same cable

Modal monoaxail accelerometer(IEPE)





Model		MT122E.6	MT122E.7	MT122E.8	MT126E.5	MT126E.6
Sensitivity		100mV/g	200mV/g	300mV/g	50mV/g	100mV/g
Range		±50gpk	±25gpk	±16gpk	±100gpk	±50gpk
Resolution		0.0001grms	0.00005grms	0.00002grms	0.0002grms	0.0001grms
Frequency Response	±5%	1-10kHz	1-7kHz	1-6kHz	1-10kHz	1-10kHz
	±10%	0.5-11kHz	0.5-8kHz	0.5-7kHz	0.5-12kHz	0.5-12kHz
Resonant Frequency		＞42kHz	＞27kHz	＞23kHz	＞38kHz	＞38kHz
Linearity		≤1%	≤1%	≤1%	≤1%	≤1%
Horizontal Sensitivity		≤5%	≤5%	≤5%	≤5%	≤5%
Temperature range		-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃
Sensing element		Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear
Connector		10-32 Side	10-32 Side	10-32 Side	10-32 Side	10-32 Side
Electrical isolation		-	-	-	-	-
Case material		Titanium	Titanium	Titanium	Titanium	Titanium
Sealing		Laser welding	Laser welding	Laser welding	Laser welding	Laser welding
Weight		6.3g	14g	22g	2.3g	2.3g
Size		11X16	13X19	16X22	7.7X7.7X6	7.7X7.7X6
Mounting		10-32 Screw hole	10-32 Screw hole	10-32 Screw hole	Adhesive	Adhesive

Note: [1] IEPE accelerometer excitation voltage 18-28VDC, excitation current 2-10mA
bias voltage 11±1.5V

Size:mm

MODAL TESTING ACCELEROMETERS

- The IEPE sensor integrated the impedance converter and Sensing Element, so that the Acceleometer output is a low impedance voltage, and the signal can be read directly.DC power supply and signal use the same cable

Modal Monoaxail/Triaxial accelerometer(IEPE)

Model		MT127E.6	MT311E	MT311E.2	MT311E.5	MT311E.6
Sensitivity		100mV/g	10mV/g	20mV/g	50mV/g	100mV/g
Range		±50gpk	±500gpk	±250gpk	±100gpk	±50gpk
Resolution		0.0001grms	0.001grms	0.0005grms	0.0002grms	0.0001grms
Frequency Response	±5%	1-10kHz	2-7kHz	2-7kHz	2-7kHz	2-7kHz
	±10%	0.5-12kHz	1-8kHz	1-8kHz	1-8kHz	1-8kHz
Resonant Frequency		＞38kHz	＞45kHz	＞35kHz	＞35kHz	＞35kHz
Linearity		≤1%	≤1%	≤1%	≤1%	≤1%
Horizontal Sensitivity		≤5%	≤5%	≤5%	≤5%	≤5%
Temperature range		-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃
Sensing element		Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear
Connector		10-32 Side	1/4-28 pin	1/4-28 pin	1/4-28 pin	1/4-28 pin
Electrical isolation		-	-	-	-	-
Case material		Titanium	Titanium	Titanium	Titanium	Titanium
Sealing		Laser welding	Laser welding	Laser welding	Laser welding	Laser welding
Weight		2.5g	4.5g	4.5g	4.5g	4.5g
Size		8.5 X 8.5 X 6.6	10.2 Cube	10.2 Cube	10.2 Cube	10.2 Cube
Mounting		Adhesive	5-40 Screw hole	5-40 Screw hole	5-40 Screw hole	5-40 Screw hole

Note: [1] IEPE accelerometer excitation voltage 18-28VDC, excitation current 2-10mA
bias voltage 11±1.5V

Size:mm

WTS TECHNOLOGY

MODAL TESTING ACCELEROMETERS

- The IEPE sensor integrated the impedance converter and Sensing Element, so that the Acceleometer output is a low impedance voltage, and the signal can be read directly.DC power supply and signal use the same cable

Modal Triaxial accelerometer(IEPE)

Model		MT351E	MT351E.2	MT351E.5	MT351E.6
Sensitivity		10mV/g	20mV/g	50mV/g	100mV/g
Range		±500gpk	±250gpk	±100gpk	±50gpk
Resolution		0.001grms	0.0005grms	0.0002grms	0.0001grms
Frequency Response	±5%	1-10kHz	1-10kHz	1-10kHz	1-9kHz
	±10%	0.5-11kHz	0.5-11kHz	0.5-11kHz	0.5-10kHz
Resonant Frequency		＞45kHz	＞45kHz	＞45kHz	＞45kHz
Linearity		≤1%	≤1%	≤1%	≤1%
Horizontal Sensitivity		≤5%	≤5%	≤5%	≤5%
Temperature range		-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃
Sensing element		Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear
Connector		1/4-28 pin	1/4-28 pin	1/4-28 pin	1/4-28 pin
Electrical isolation		-	-	-	-
Case material		Titanium	Titanium	Titanium	Titanium
Sealing		Laser welding	Laser welding	Laser welding	Laser welding
Weight		4.3g	4.6g	4.6g	4.6g
Size		10.2 Cube	10.2 Cube	10.2 Cube	10.2 Cube
Mounting		5-40 Screw hole	5-40 Screw hole	5-40 Screw hole	5-40 Screw hole

Note: [1] IEPE accelerometer excitation voltage 18-28VDC, excitation current 2-10mA
bias voltage 11±1.5V

Size:mm

WATERPROOF ACCELEROMETERS

Waterproof accelerometers utilize an integrated cable design for effective sealing, enabling measurements up to 50 meters underwater. They are available in single-axis and multi-axis voltage output types (IEPE).

Product features:

High reliability and stability,

Wide range of sensitivity options,

High signal-to-noise ratio,

Suitable for high humidity or underwater measurements.

Application scenarios：

Vibration reliability testing

Structural testing,Product quality research,

vibration control,

Mechanical equipment research.

WTS TECHNOLOGY

WATERPROOF ACCELEROMETERS

- The IEPE sensor integrated the impedance converter and Sensing Element, so that the Acceleometer output is a low impedance voltage, and the signal can be read directly.DC power supply and signal use the same cable

Waterproof Monoaxail accelerometer(IEPE)

Model		U112EM	U112EM.2	U112EM.5	U112EM.6	U112EM.7	U112EM.8
Sensitivity		10mV/g	20mV/g	50mV/g	100mV/g	200mV/g	300mV/g
Range		±500gpk	±250gpk	±100gpk	±50gpk	±25gpk	±16gpk
Resolution		0.001grms	0.0005grms	0.0002grms	0.0001grms	0.00005grms	0.00002grms
Frequency Response	±5%	1-10kHz	1-10kHz	1-10kHz	1-10kHz	1-7kHz	1-6kHz
	±10%	0.5-11kHz	0.5-11kHz	0.5-11kHz	0.5-11kHz	0.5-8kHz	0.5-7kHz
Resonant Frequency		＞42kHz	＞42kHz	＞42kHz	＞42kHz	＞27kHz	＞23kHz
Linearity		≤1%	≤1%	≤1%	≤1%	≤1%	≤1%
Horizontal Sensitivity		≤5%	≤5%	≤5%	≤5%	≤5%	≤5%
Temperature range		-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃
Sensing element		Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear
Connector		Integrated cable	Integrated cable	Integrated cable	Integrated cable	Integrated cable	Integrated cable
Electrical isolation		-	-	-	-	-	-
Case material		Titanium	Titanium	Titanium	Titanium	Titanium	Titanium
Sealing		Laser welding	Laser welding	Laser welding	Laser welding	Laser welding	Laser welding
Weight		6.3g	6.3g	6.3g	6.3g	14g	22g
Size		11 X22	11 X22	11 X22	11 X22	13 X25	16 X27.5
Mounting		10-32 Screw hole	10-32 Screw hole	10-32 Screw hole	10-32 Screw hole	10-32 Screw hole	10-32 Screw hole

Note: [1] IEPE accelerometer excitation voltage 18-28VDC, excitation current 2-10mA
bias voltage 11±1.5V

Size:mm

WATERPROOF ACCELEROMETERS

- The IEPE sensor integrated the impedance converter and Sensing Element, so that the Acceleometer output is a low impedance voltage, and the signal can be read directly.DC power supply and signal use the same cable

Waterproof Monoaxail accelerometer(IEPE)

Model		U122EM	U122EM.2	U122EM.5	U122EM.6	U122EM.7	U122EM.8
Sensitivity		10mV/g	20mV/g	50mV/g	100mV/g	200mV/g	300mV/g
Range		±500gpk	±250gpk	±100gpk	±50gpk	±25gpk	±16gpk
Resolution		0.001grms	0.0005grms	0.0002grms	0.0001grms	0.00005grms	0.00002grms
Frequency Response	±5%	1-10kHz	1-10kHz	1-10kHz	1-10kHz	1-7kHz	1-6kHz
	±10%	0.5-11kHz	0.5-11kHz	0.5-11kHz	0.5-11kHz	0.5-8kHz	0.5-7kHz
Resonant Frequency		＞42kHz	＞42kHz	＞42kHz	＞42kHz	＞27kHz	＞23kHz
Linearity		≤1%	≤1%	≤1%	≤1%	≤1%	≤1%
Horizontal Sensitivity		≤5%	≤5%	≤5%	≤5%	≤5%	≤5%
Temperature range		-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃	-55~+120℃
Sensing element		Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear
Connector		Integrated cable	Integrated cable	Integrated cable	Integrated cable	Integrated cable	Integrated cable
Electrical isolation		-	-	-	-	-	-
Case material		Titanium	Titanium	Titanium	Titanium	Titanium	Titanium
Sealing		Laser welding	Laser welding	Laser welding	Laser welding	Laser welding	Laser welding
Weight		6.3g	6.3g	6.3g	6.3g	14g	22g
Size		11X16	11X16	11X16	11X16	13X19	16X22
Mounting		10-32 Screw hole	10-32 Screw hole	10-32 Screw hole	10-32 Screw hole	10-32 Screw hole	10-32 Screw hole

Note: [1] IEPE accelerometer excitation voltage 18-28VDC, excitation current 2-10mA
bias voltage 11±1.5V

Size:mm

WTS TECHNOLOGY

WATERPROOF ACCELEROMETERS

- The IEPE sensor integrated the impedance converter and Sensing Element, so that the Acceleometer output is a low impedance voltage, and the signal can be read directly.DC power supply and signal use the same cable

Waterproof triaxail accelerometer(IEPE)

Model		X311EM	X311EM.2	X311EM.5	X311EM.6
Sensitivity		10mV/g	20mV/g	50mV/g	100mV/g
Range		±500gpk	±25gpk	±100gpk	±50gpk
Resolution		0.001grms	0.0005grms	0.0002grms	0.0001grms
Frequency Response	±5%	1-7kHz	1-7kHz	1-7kHz	1-7kHz
	±10%	0.5-8kHz	0.5-8kHz	0.5-8kHz	0.5-8kHz
Resonant Frequency		＞45kHz	＞45kHz	＞45kHz	＞45kHz
Linearity		≤1%	≤1%	≤1%	≤1%
Horizontal Sensitivity		≤5%	≤5%	≤5%	≤5%
Temperature range		-55~+120 ℃	-55~+120 ℃	-55~+120 ℃	-55~+120 ℃
Sensing element		Ceramic/Shear	Ceramic/Shear	Ceramic/Shear	Ceramic/Shear
Connector		Integrated cable	Integrated cable	Integrated cable	Integrated cable
Electrical isolation		-	-	-	-
Case material		Titanium	Titanium	Titanium	Titanium
Sealing		Laser welding	Laser welding	Laser welding	Laser welding
Weight		4.5g	4.5g	4.5g	4.5g
Size		10.2Cube	10.2Cube	10.2Cube	10.2Cube
Mounting		5-40 Screw hole	5-40 Screw hole	5-40 Screw hole	5-40 Screw hole

Note: [1] IEPE accelerometer excitation voltage 18-28VDC, excitation current 2-10mA
bias voltage 11±1.5V

Size:mm

CHARGE AMPLIFIER

The online charge amplifier converts the charge signal from the charge sensor into a voltage signal for input into the acquisition or control instrument. It is characterized by a wide band, low noise, and user-friendly operation.

Charge amplifier

Mode	G1E01	G1E1	G1E10
Sensitivity	0.1mV/pC	1mV/pC	10mV/pC
Frequency range	0.5-20kHz	0.5-20kHz	0.5-20kHz
Max charge	40,000pC	4,000pC	400pC
Noise	0.1mVrms	0.1mVrms	0.1mVrms
Connector	10-32 to 10-32	10-32 to 10-32	10-32 to 10-32
Weight	3.6g	3.6g	3.6g
Size	Φ6 X 37	Φ6 X 37	Φ6 X 37

Mode	C1E01	C1E1	C1E10
Sensitivity	0.1mV/pC	1mV/pC	10mV/pC
Frequency range	0.5-20kHz	0.5-20kHz	0.5-20kHz
Max charge	40,000pC	4,000pC	400pC
Noise	0.1mVrms	0.1mVrms	0.1mVrms
Connector	BNC-BNC	BNC-BNC	BNC-BNC
Weight	3.6g	3.6g	3.6g
Size	Φ11.8 X 50	Φ11.8 X 50	Φ11.8 X 50

Size unit:mm

ACOUSTIC SENSOR

An acoustic sensor is a device that converts acoustic signals from an external sound field into electrical signals. It finds extensive applications in communications, noise control, environmental monitoring, sound quality evaluation, entertainment, ultrasonic testing, underwater detection, biomedical engineering, and medical fields.

Acoustic sensor

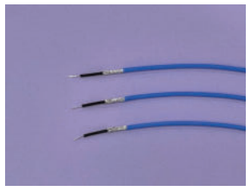
Model	M120.5	M121.5	M140.5
Sensitivity	50mV/Pa	50mV/Pa	50mV/Pa
Frequency range	20-20kHz	6.3-20kHz Level 1	20-20kHz
Dynamic range	30-136dB	18-146dB	30-126dB
Diameter	1/2 in	1/2 in	1/4 in
Sound Field Type	Free Field	Free Field	Free Field
Noise Leval	<2.0 uV	<2.0 uV	<2.0 uV
Static Pressure Coefficient	-0.010 dB/KPa	-0.010 dB/KPa	-0.010 dB/KPa
Temperature Coefficient	-0.008 dB/°C (-20~+60°C)	-0.008 dB/°C (-20~+60°C)	-0.008 dB/°C (-20~+60°C)
Operating Environment	-40~80°C/0~98%RH	-40~80°C/0~98%RH	-40~80°C/0~98%RH
Operating Voltage	24V	24V	24V
Operating Current	2-20mA	2-20mA	2-20mA
Input/Output	BC-BC1	BC-BC1	BC-BC1
Case material	Stainless Steel	Stainless Steel	Stainless Steel
Weight	22g	34g	9.5g
Size	Φ13 X 85	Φ13 X 85	Φ7 X 65

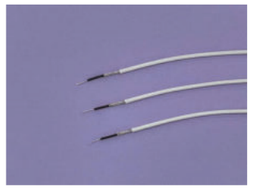
Size unit:mm

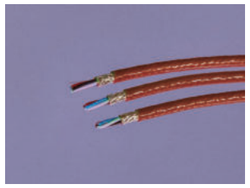
Cables and Accessories

Cables

Model	Cabel Type	Diameter	Max Temp.	Materail
LC08	Low noise coaxial cable	0.8mm	260℃	PTFE
LC10	Low noise coaxial cable	1.0mm	260℃	PTFE
LC18	Low noise coaxial cable	1.8mm	260℃	PTFE
SC11	Standard coaxial cable	1.1mm	200℃	PTFE
SC18	Standard coaxial cable	1.8mm	200℃	PTFE
ES25	Four core standard coaxial cable	2.5mm	200℃	FEP







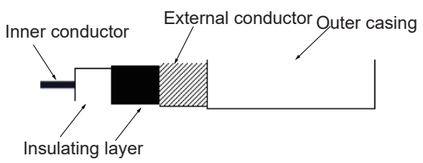
Configuration cable type：

Configuring cables need confirm the sensor connector, cable type, cable length, and terminal connector.

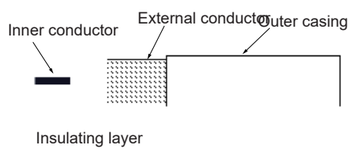
M5-BNC 5m mono-axial low noise coaxial calbe=M5/LC18/5/BC

1/4-28-3BNC 5m tri-axial four core standard cable=1/4-28/ES25/5/3BC

Sensor connector	Cable type	Cable length(m)	Terminal connector
M5	LC18	5	BC



a) Low noise cable structure

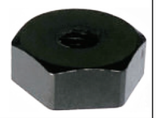


b) Standard cable construction

WTS TECHNOLOGY

Accessories

Bolt and Mounting bases

Model	Product Name	Description	
S13	Isolated Mounting Base	13mm A/F， 10-32 Stud height 3.2mm，thickness5mm	
S15	Isolated Mounting Base	15mm A/F， 10-32 Stud height 3.2mm，thickness5mm	
S19	Isolated Mounting Base	19mm A/F， 10-32 Stud height 3.2mm，thickness5mm	
H13	Isolated Mounting Base	13mm A/F， 10-32 Screw hole，thickness5mm	
H19	Isolated Mounting Base	19mm A/F， 10-32 Screw hole，thickness5mm	
SM13	Isolated Mounting Magnet	13mm A/F， 10-32 Stud height 3.2mm，thickness5mm	
SM15	Isolated Mounting Magnet	15mm A/F， 10-32 Stud height 3.2mm，thickness5mm	
SM15	Isolated Mounting Magnet	19mm A/F， 10-32 Stud height 3.2mm，thickness5mm	
SS13	Isolated Mounting Base	13mm A/F， Double end 10-32Stud，thickness5mm	
SS15	Isolated Mounting Base	15mm A/F， Double end 10-32Stud，thickness5mm	
SS19	Isolated Mounting Base	19mm A/F， Double end 10-32Stud，thickness5mm	
SM21	Isolated Mounting Magnet	21mm A/F， 10-32 Screw height3.2mm，thickness5mm	
HM21	Isolated Mounting Magnet	21mm A/F , 10-32 SVcrew hole， thickness5mm	

Signal Isolators

Model	Product Name	Description	
ESI-01	signal isolator	Frequency：1-7kHz (-0.3dB) Max input Voltage: 10VAC Max input Current：10mA	

In addition to general purpose products, WTS can produce customized products according to customer requirements to meet the requirements of customers in various industries.
Look forward to your cooperation!

Impulse Hammer

Modle	C02	C20	C50	C100
Sensitivity	25mV/N	2.5mV/N	1mV/N	0.5mV/N
Max.shock force	200N	2,000N	5,000N	10,000N
Head diameter	Φ18mm	Φ16mm	Φ20mm	Φ32mm
Handle length	250mm	250mm	250mm	350mm
Head weight	28g	80g	120g	445g
Additional head weight	-	24g	24g	24g

Introduction of sensor technology

Types of accelerometers for testing, measuring, and equipment monitoring：

Charge mode-Utilizes the piezoelectric effect discovered by the Curie brothers in 1880, which is the initial design principle of accelerometers. The all-mechanical design that converts mechanical energy into charge, in order to analyze with external instruments, the charge output signal usually must be converted into a voltage signal. This design does not require power supply (passive type).

IEPE mode(Integrated Electronics Piezo-Electric)- Use the same basic principle as the charge-type accelerometers, with the same mechanical piezoelectric characteristics, use a tiny internal amplification circuit to convert the charge signal into a voltage signal output ; this circuit ispowered by external voltage that provides DC voltage and constant current.(active type).

MEMS Mode(Micro-Electro-Mechanical System）- There are mainly two types of MEMS accelerometers: piezoresistive type and variable capacitance type， both are rely heavily on electronic circuits and provide measurements starting from real DC frequencies, used for both low frequency and regular measurements.

Work and design principle：

Piezoelectric type-All piezoelectric accelerometers work in the same way. A mass applies a force to a piezoelectric material (crystal or ceramic) and then outputs an electric charge directly proportional to that force on the surface of the material. The stress is affected by the weight of the mass and the acceleration (F=ma), and the charge output is also affected by the piezoelectric material.

Piezoresistive type-The construction of piezoresistive accelerometer is equipped with a mass block at the end of the armature. When the armature is stressed, the sensor output resistance measured by a varistor or strain gauge.

Capacitive type-The capacitive accelerometer is equipped with a plate in the mass block and armature and realize the output of capacitance signal by measuring the distance between the plates.

Accelerometer Selection

Weight -The mass load of the sensor will increase the mass of the specimen been tested and then affects the dynamic characteristics of the test. During the test, users focus on the natural response of the test structure vibration, so ii's necessary to minimize the mass load, thereby the accelerometer weight is an important consideration.

Range (sensitivity)-The required measurement range. IEPE type accelerometers are limited by their output voltage, (nominal voltage of 5,000mVAC),The relationship between range and sensitivity is："Range=5000mV/Sensitivity"，for example：sensitivity 100mV/g,the sensor range is 50gpk，The selected sensor range must cover the entire measurement range.If the IEPE type sensor exceeds its measurenment range, it will overload and there will be no signal outptu for a period of time Long term overload will damage internal circuit.

Temperature range-The temperature range of each type of sensor is different. the hight-temp charge accelerometer can be used under 250℃, while the standard IEPE accelerometer can only be used under 120℃. Please make sure the temperature range meets the requirements before selection.

Frequency range-All accelerometers have a flat frequency response range, within this range, the sensitivity error will not exceed +-5%, please ensure this range matches with the test range.

Cable Selection

It is crucial to choose between low noise and non-low noise cables when using acceleration sensors.

Charge accelerometers

Charge output type accelerometer must be used with low noise cables."Low noise" refers to the ability of the cable to reduce friction noise, achieved by wrapping a graphite layer on the outer surface of the internal dielectric layer; if the charge type sensor is used with non-low noise cables, the movement or swinging of the cable will add extra charge signals to the data, causing an increase in data analysis error.

IEPE accelerometers-An IEPE accelerometer is much more adaptable and can be used with almost any type of cable. These sensors usually use traditional coaxial cables.