

# Пьезоэлектрические зарядовые акселерометры

Модели & Серии	Особенности	Описание	Применение
E501	<ul style="list-style-type: none"> <li>Герметичная изоляция</li> <li>Чувствительность: 10, 50, 100 пКл/g</li> <li>Нечувствительность к деформации основания</li> <li>Универсальный пьезоэлектрический акселерометр с исключительно хорошими параметрами</li> </ul>	<p>E501 – это устанавливаемый на штифт пьезоэлектрический акселерометр, работающий на эффекте сдвига. Его чувствительным элементом является пьезоэлектрический кристалл, работающий в сдвиговом режиме. Выходной сигнал, обладающий долговременной стабильностью, высокая резонансная частота, низкая чувствительность к деформации основания. Коаксиальный кабель с низким уровнем шума обеспечивает работу без помех.</p>	<p>Этот акселерометр идеален для измерения вибрации конструкций в жестких условиях окружающей среды. Применяется в испытаниях автомобилей и самолетов.</p>
E503	<ul style="list-style-type: none"> <li>Герметичная изоляция</li> <li>Изоляция от земли</li> <li>Боковой разъем</li> <li>Температурная компенсация до +288°C</li> <li>Измерения вибрации общего характера</li> <li>Работа в условиях радиационного излучения до 108 рад.</li> </ul>	<p>E503 – это пьезоэлектрический акселерометр, работающий на эффекте сдвига. Его чувствительным элементом является пьезоэлектрический кристалл, работающий в сдвиговом режиме. Выходной сигнал, обладающий долговременной стабильностью, высокая резонансная частота, низкая чувствительность к деформации основания. Коаксиальный кабель с низким уровнем шума обеспечивает работу без помех. Разрешающая способность в тысячные доли g</p>	<p>Модальные испытания, анализ вибрации и мониторинг больших конструкций.</p>
E504	<ul style="list-style-type: none"> <li>Герметичная изоляция</li> <li>Изоляция от земли</li> <li>Расположенный сверху разъем</li> <li>Температурная компенсация до +288°C</li> <li>Нечувствительность к деформации основания</li> </ul>	<p>E504 - это пьезоэлектрический акселерометр, работающий на эффекте сдвига. Его чувствительным элементом является пьезоэлектрический кристалл в сдвиговом режиме. Сигнал земли изолирован от внешнего корпуса модуля. Коаксиальный кабель с низким уровнем шума обеспечивает работу без помех.</p>	<p>Исключительно хорошая температурная адаптация. Высокая надежность в сильных электромагнитных полях. Стабильность в условиях радиационного излучения.</p>
E523	<ul style="list-style-type: none"> <li>12 пКл/g</li> <li>Работа в трех плоскостях</li> <li>Высокая разрешающая способность</li> <li>Изоляция от земли</li> <li>Для применений общего характера и в испытаниях упаковки</li> </ul>	<p>E523 – это трехосевой пьезоэлектрический акселерометр, чувствительным элементом которого является пьезоэлектрический кристалл, работающий в режиме кругового сдвига. Выходная чувствительность обладает долговременной стабильностью. Коаксиальный кабель с низким уровнем шума обеспечивает работу без помех. Специальное покрытие поверхности обеспечивает устойчивость к коррозии и окислению.</p> <p>Пассивная, исключительно высокая долговременная стабильность и высокая помехоустойчивость</p>	<p>Мониторинг вибрации и модальный анализ в жестких условиях. Применение в испытаниях упаковки.</p>

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 <b>E524</b>	<ul style="list-style-type: none"> <li>Низкая стоимость</li> <li>Небольшие габариты</li> <li>Расположенный сверху разъем</li> <li>Измерения вибрации общего характера</li> </ul>	<p>E524 – это универсальный пьезоэлектрический акселерометр, чувствительным элементом которого является пьезоэлектрический кристалл, работающий в режиме кругового сдвига. Чувствительность прибора обладает долговременной стабильностью. Коаксиальный кабель с низким уровнем шума обеспечивает работу без помех.</p>	<p>Универсальный акселерометр с высоким отношением качество/цена. Измерение вибрации и соударений в жестких условиях. Испытания небольших конструкций на вибрацию.</p>
 <b>E526</b>	<ul style="list-style-type: none"> <li>Небольшая масса, 2,8 грамма</li> <li>Рабочая температура до +177°C</li> <li>Установка на клей</li> <li>Расположенный сверху разъем</li> <li>Измерение вибрации небольших конструкций</li> </ul>	<p>E526 – это универсальный пьезоэлектрический акселерометр, чувствительным элементом которого является пьезоэлектрический кристалл, работающий в режиме кругового сдвига. Чувствительность прибора обладает долговременной стабильностью. Коаксиальный кабель с низким уровнем шума обеспечивает работу без помех.</p>	<p>Универсальный акселерометр, устанавливаемый на клей. Применение для испытаний на вибрацию небольших конструкций. Исключительно высокая температурная стабильность, разрешающая способность в тысячные доли g.</p>
 <b>E528</b>	<ul style="list-style-type: none"> <li>Работа в трех плоскостях</li> <li>Измерение вибрации в трех ортогональных плоскостях</li> <li>Небольшая масса, 15 грамм</li> <li>Изоляция от земли</li> <li>Герметичность при помощи эпоксидной смолы</li> </ul>	<p>E528 – это небольшой трехосевой пьезоэлектрический акселерометр, чувствительным элементом которого является пьезоэлектрический кристалл, работающий в режиме кругового сдвига. Измерение вибрации в трех ортогональных плоскостях на небольших конструкциях и объектах. Выходная чувствительность обладает долговременной стабильностью. Гибкий коаксиальный кабель с низким уровнем шума обеспечивает работу без помех. Специальное покрытие поверхности обеспечивает устойчивость к коррозии и окислению.</p>	<p>Измерение вибрации небольших конструкций. Миниатюрный трехосевой акселерометр. Долговременная стабильность и разрешающая способность в тысячные доли g.</p>
 <b>E529</b>	<ul style="list-style-type: none"> <li>Миниатюрность, установка на штифт</li> <li>Измерение вибрации небольших конструкций</li> <li>Небольшая масса, 4,9 грамма</li> <li>Изоляция от земли</li> <li>2,8 пКл/g</li> <li>Расположенный сверху разъем</li> </ul>	<p>E529 – это миниатюрный, устанавливаемый на штифт пьезоэлектрический акселерометр, работающий на принципе кругового сдвига. Выходная чувствительность обладает долговременной стабильностью. Гибкий коаксиальный кабель с низким уровнем шума обеспечивает работу без помех. Измерение вибрации небольших конструкций. Расположенный сверху разъем допускает установку в труднодоступных местах. Хорошая долговременная стабильность, высокая чувствительность и разрешающая способность в тысячные доли g.</p>	<p>Измерение вибрации небольших конструкций. Миниатюрный трехосевой акселерометр. Долговременная стабильность и разрешающая способность в тысячные доли g.</p>

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Модели & Серии	Особенности	Описание	Применение
E621	<ul style="list-style-type: none"> <li>• Небольшая масса, 0,8 грамма</li> <li>• Изоляция от земли</li> <li>• Установка на клей</li> <li>• Измерение вибрации небольших конструкций</li> </ul>	Стандартный миниатюрный акселерометр, который может применяться для измерения вибрации небольших конструкций. Рабочая температура до +177 °C. Идеален, когда требуется небольшой и легкий акселерометр.	Электроника (мобильные телефоны, ноутбуки, компьютеры) Объекты с микроструктурой БПЛА (Беспилотные летающие аппараты) Автомобильный датчик соударения со слабым ускорением Небольшие самолеты (полетные испытания)
E622	<ul style="list-style-type: none"> <li>• Небольшая масса, 0,8 грамма</li> <li>• Изоляция от земли</li> <li>• Установка на клей</li> </ul> <p>Измерение вибрации небольших конструкций</p>	Стандартный миниатюрный акселерометр, который может применяться для измерения вибрации небольших конструкций. Рабочая температура до +177 °C. Идеален, когда требуется небольшой и легкий акселерометр.	Электроника (мобильные телефоны, ноутбуки, компьютеры) Объекты с микроструктурой БПЛА (Беспилотные летающие аппараты) Автомобильный датчик соударения со слабым ускорением Небольшие самолеты (полетные испытания)
E521	<ul style="list-style-type: none"> <li>• Высокая выходная чувствительность 17 пКл/g</li> <li>• Небольшой объем, малая масса, 12 грамм</li> <li>• Изоляция от земли</li> <li>• Высокая помехоустойчивость</li> </ul>	E521 – это небольшой пьезоэлектрический акселерометр, работающий на принципе кругового сдвига. Он обладает исключительно хорошей долговременной стабильностью чувствительности. Коаксиальный кабель с низким уровнем шума обеспечивает работу без помех. Специальная обработка поверхности гарантирует жесткость контакта.	Как правило, этот акселерометр может применяться для измерения вибрации значительной части небольших конструкций и объектов.
E522	<ul style="list-style-type: none"> <li>• Непрерывная работа при температуре до +260°C</li> <li>• Балансный дифференциальный выход</li> <li>• Изоляция от земли</li> <li>• Высокая помехоустойчивость, длительное время безотказной работы</li> </ul>	Работа акселерометра основана на сдвиговом принципе. Прибор имеет балансный дифференциальный выход. Исключительно длительное время безотказной работы.	Измерение вибрации частей авиационных двигателей, разогретых до высоких температур. Измерение вибрации турбореактивных двигателей.

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E533	<ul style="list-style-type: none"> <li>• Зарядовая чувствительность: 10, 50, 100 пКл/g</li> <li>• Непрерывная работа при температуре до 482°C</li> <li>• Герметически изолированный корпус</li> <li>• Жесткий разъем военного исполнения</li> <li>• Изоляция от земли</li> </ul>	Адаптированная к высоким температурам конструкция, балансный дифференциальный выход. Очень длительный срок безотказной работы. Пассивная конструкция и быстрая реакция на изменение температуры.	Измерение вибрации частей авиационных двигателей, разогретых до высоких температур. Применение для измерения вибрации турбореактивных двигателей. Установка на разогревающиеся до высоких температур устройства, а также в камеры испытаний на нагрев.
E540-10	<ul style="list-style-type: none"> <li>• Непрерывная работа при температуре до 649°C</li> <li>• Герметическая изоляция</li> <li>• Изоляция от земли</li> <li>• Нестабильность чувствительности менее ±10% в диапазоне от минус 200 до +649°C</li> </ul>	Исключительно хорошая температурная характеристика и температурная стабильность в полном диапазоне (от минус 200 до +649°C). Адаптированная к высоким температурам конструкция, балансный дифференциальный выход. Исключительно длительный срок безотказной работы. Поставляется с высокотемпературными кабелями (482°C и 649°C) с низким уровнем шума.	Применяется для испытаний на вибрацию разогретых до высоких температур частей авиационных двигателей. Измерение вибрации турбореактивных двигателей. Исключительно высокая температурная стабильность и устойчивость к сильным помехам. Часто применяется в различных измерениях вибрации при высоких температурах, а также в качестве опорного акселерометра.
E571A1	<ul style="list-style-type: none"> <li>• Пассивный зарядовый выход</li> <li>• Измерение вибрации при криогенных температурах</li> <li>• Герметическая изоляция</li> <li>• Изоляция от земли</li> <li>• Плоская АЧХ (от минус 200 до 260°C)</li> <li>• Боковой разъем</li> </ul>	E571A1 – это пьезоэлектрический акселерометр, работающий в широком температурном диапазоне и имеющий в качестве чувствительного элемента пьезоэлектрический кристалл в режиме сжатия. Чувствительность прибора обладает долговременной стабильностью. Сигнал земли изолирован от внешнего корпуса модуля. Прибор оборудован боковым разъемом 10-32 и коаксиальным кабелем с низким уровнем шумов, обеспечивающим работу без помех. Быстрая реакция на изменение температуры.	Исключительно широкий температурный диапазон позволяет применять акселерометр для измерения вибрации в экстремальных температурах.
E573	<ul style="list-style-type: none"> <li>• Высокая сопротивляемость к радиации</li> <li>• Боковой разъем</li> </ul>	E573 – это прецизионный пьезоэлектрический акселерометр для промышленных и лабораторных приложений. Он может работать в условиях гамма- и нейтронного излучения. Внешнее питание не требуется	Возможность работы в условиях радиационного излучения и при наличии высоких температур. Возможность работы под воздействием гамма-излучения

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	<ul style="list-style-type: none"> <li>• Непрерывная работа при температуре до +400°C</li> <li>• Измерение вибрации в условиях радиационного излучения и при наличии высоких температур</li> </ul>		
 <b>E573A2</b>	<ul style="list-style-type: none"> <li>• Высокая сопротивляемость к радиации</li> <li>• Верхний разъем</li> <li>• Непрерывная работа при температуре до +400°C</li> <li>• Измерение вибрации в условиях радиационного излучения и при наличии высоких температур</li> </ul>	<p>E573A2 – это прецизионный пьезоэлектрический акселерометр для промышленных и лабораторных приложений. Он может работать в условиях гамма- и нейтронного излучения. Внешнее питание не требуется</p>	<p>Возможность работы в условиях радиационного излучения и при наличии высоких температур Возможность работы под воздействием гамма-излучения</p>
 <b>E576</b>	<ul style="list-style-type: none"> <li>• Высокая сопротивляемость к радиации</li> <li>• Боковой разъем</li> <li>• Непрерывная работа при температуре до +400°C</li> <li>• Измерение вибрации в условиях радиационного излучения и при наличии высоких температур</li> </ul>	<p>E576 – это прецизионный пьезоэлектрический акселерометр для промышленных и лабораторных приложений. Он может работать в условиях гамма- и нейтронного излучения. Внешнее питание не требуется</p>	<p>Возможность работы в условиях радиационного излучения и при наличии высоких температур Возможность работы под воздействием гамма-излучения</p>

Model	Weight grams	Sensitivity pC/g	Range g	Frequency Response Hz	Insulation Resistance	Max. Shock g pK	Min. Temp. °C	Max. Temp. °C	Seal	Mounting Method
E501-10	18	10	2,000	1 ~ 11,000	No	20,000	-73	+260	Hermetic	10-32 Stud
E501-50	20	50	2,000	1 ~ 6,000	No	10,000	-73	+260	Hermetic	10-32 Stud
E501-100	25	100	2,000	1 ~ 5,000	No	5,000	-73	+260	Hermetic	10-32 Stud
E503-50	25	50	2,000	1 ~ 6,000	Yes	10,000	-55	+288	Hermetic	10-32 Stud
E503-100	29	100	1,000	1 ~ 5,000	Yes	5,000	-55	+288	Hermetic	10-32 Stud
E503-200	62	200	850	1 ~ 4,000	Yes	2,000	-55	+288	Hermetic	10-32 Stud
E504-50	25	50	2,000	1 ~ 6,000	Yes	10,000	-55	+288	Hermetic	10-32 Stud
E504-100	29	100	1,000	1 ~ 5,000	Yes	5,000	-55	+288	Hermetic	10-32 Stud
E521	12	17	1,000	1 ~ 6,000	Yes	5,000	-55	+177	Epoxy	6-32 Stud
E521A	11	10	1,000	1 ~ 10,000	No	3,000	-55	+260	Hermetic	6-32 UNC-2A THD
E522-20	91	20	2,000	1 ~ 9,000	Yes	4,000	-55	+260	Hermetic	10-32 Stud
E522-50	91	50	1,000	1 ~ 6,000	Yes	2,000	-55	+260	Hermetic	10-32 Stud
E522-100	91	100	500	1 ~ 6,000	Yes	1,000	-55	+260	Hermetic	10-32 Stud
E523	41	12	1,000	1 ~ 3,000 in x, y 1 ~ 6,000 in z	Yes	2,000	-55	+177	Epoxy	Stud
E524	16	12	1,000	1 ~ 6,000	No	2,000	-55	+177	Epoxy	10-32 UNF-2B THD
E525-20K	13	0.75	10,000	1 ~ 10000	No	20,000	-55	+177	Epoxy	1/4-28 Thread
E525-100K	13	0.025	10,000	1 ~ 10,000	No	100,000	-55	+177	Epoxy	1/4-28 Thread
E526	2.8	2.8	1,000	2 ~ 5,000	No	2,000	-55	+177	Epoxy	Adhesive
E528	15	2.8	1,000	20 ~ 4,000	Yes	2,000	-55	+177	Epoxy	Adhesive or 4-40x5/8 Socket Head Cap Screws
E529	4.9	2.8	1,000	1 ~ 5,000	Yes	2,000	-55	+177	Epoxy	10-32 UNF-2A THD
E533-10	≤ 75	10	1,000	1 ~ 5,000	Yes	2,000	-55	+482	Epoxy	10-32 UNF-2A THD
E533-50	≤ 110	50	1,000	10 ~ 2,500	Yes	2,000	-55	+482	Hermetic	10-32 UNF-2A THD
E533-100	≤ 110	100	500	10 ~ 2,000	Yes	1,000	-55	+482	Hermetic	8-32 UNC x 0.5 inch Socket Head Cap
E540-10	≤ 110	10	1,000	5 ~ 2,500	Yes	2,000	-50	+649	Hermetic	10-32 Stud, Side Connector
E571A1	25	11	1,000	2 ~ 4,000	Yes	10,000	-200	+260	Hermetic	10-32 Stud, Top Connector
E571A2	25	11	1,000	2 ~ 4,000	Yes	10,000	-200	+260	Hermetic	10-32 Stud
E573	25	3	1,000	1 ~ 6,000	No	10,000	-184	+400	Hermetic	10-32 Stud
E573A1	32	10	500	20 ~ 5,000	Yes	3,000	-55	+400	Hermetic	10-32 Stud
E573A2	32	10	500	20 ~ 5,000	Yes	3,000	-55	+400	Silicone Compound	Adhesive
E576	30	10	500	1 ~ 5,000	Yes	3,000	-55	+482	Silicone Compound	Adhesive
E578	25	3	1,000	1 ~ 10,000	No	10,000	-200	+500	Silicone Compound	Adhesive
E621	0.5	1.4	1,000	0.5 ~ 8,000	Yes	10,000	-73	+177	Hermetic	10-32 Stud, SideConnector
E622	0.8	1.4	1,000	0.5 ~ 8,000	Yes	10,000	-73	+177	Hermetic	10-32 Stud, SideConnector

# E501-50 Accelerometer

## Description

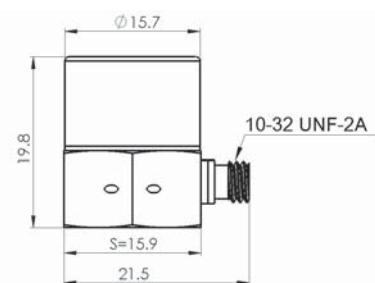
- E501-50 is a stud mounted, isoshear piezoelectric accelerometer, its element is Piezo-crystal in shear mode
- Long stability of output, high resonance frequency, and low base strain sensitivity
- Equipped with one low-noise coaxial cable

## Characteristics

- Hermetically sealed
- Stable output
- Insensitive to base bending
- Require no external power
- excellent general-purpose accelerometer



Dynamic Characteristics	
Sensitivity	50pC/g
Non-linearity	$\leq \pm 1\%$
Frequency response ( $\pm 5\%$ )	1 ~ 6,000Hz
Resonant frequency	30kHz
Transverse Sensitivity	$\leq 5\%$
Electrical Characteristics	
Excitation voltage	Passive
Resistance(Either signal pin to case)	$\geq 10G\Omega$
Capacitance	3600pF
Grounding	Signal ground connected to case
Environmental characteristics	
Working temperature	-73°C ~ +260°C
Vibration limit	2000g pk
Shock limit	10000g pk
Humidity	Hermetically sealed
Base strain Sensitivity	0.002g pk/ $\mu$ strain
Thermal transient Sensitivity	0.007g pk/°C
Electromagnetic Sensitivity	0.0002g rms/gauss
Physical characteristics	
Weight	20 grams
Case material	Stainless steel
Mounting Torque	2Nm



- Through the assessment of environmental test: Vibration, Shock, Acceleration, Electromagnetic compatibility, Temperature, Altitude, Temperature impact, Mould, Salt mist, Humidity and hot etc.



# E501-100 Accelerometer

## Description

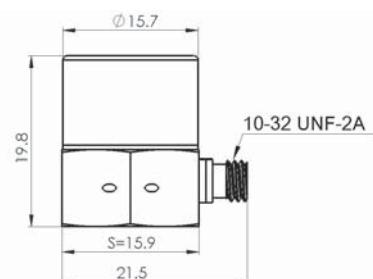
- E501-100 is a stud mounted, isoshear piezoelectric accelerometer, its element is Piezo-crystal in shear mode
- Long stability of output, high resonance frequency, and low base strain sensitivity
- Equipped with one low-noise coaxial cable

## Characteristics

- Hermetically sealed
- Stable output
- Insensitive to base bending
- Require no external power
- excellent general-purpose accelerometer



Dynamic Characteristics	
Sensitivity	100pC/g
Non-linearity	$\leq \pm 1\%$
Frequency response ( $\pm 5\%$ )	1 ~ 5,000Hz
Resonant frequency	25kHz
Transverse Sensitivity	$\leq 5\%$
Electrical Characteristics	
Excitation voltage	Passive
Resistance(Either signal pin to case)	$\geq 10G\Omega$
Insulation Resistance	3600pF
Grounding	Signal ground connected to case
Environmental characteristics	
Working temperature	-73°C ~ +260°C
Vibration limit	2000g
Shock limit	5000g
Humidity	Hermetically sealed
Base strain Sensitivity	0.002g pk/ $\mu$ strain
Thermal transient Sensitivity	0.007g pk/°C
Electromagnetic sensitivity	0.0002g rms/gauss
Physical characteristics	
Weight	25grams
Case material	Stainless steel
Mounting Torque	2Nm



- Through the assessment of environmental test: Vibration, Shock, Acceleration, Electromagnetic compatibility, Temperature, Altitude, Temperature impact, Mould, Salt mist, Humidity and hot etc.

# E503-50 Accelerometer

## Description

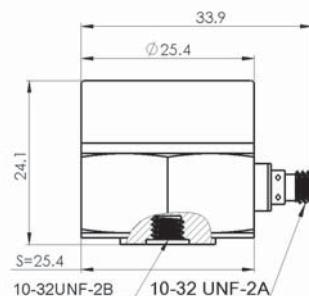
- E503-50 is an isoshear piezoelectric accelerometer, its element is Piezo-crystal in shear mode
- Long stability of output, high Resonant frequency, low base strain sensitivity
- Equipped with one low-noise coaxial cable
- Self-generating device that requires no external power for operation

## Characteristics

- Hermetically sealed
- Ground-isolated
- Side connector
- Temperature compensated to +288 °C
- general vibration measurement



Dynamic Characteristics	
Sensitivity	50pC/g
Non-linearity	≤ 1%
Frequency response ( $\pm 5\%$ )	1 ~ 6,000Hz
Resonant frequency	26kHz
Transverse Sensitivity	≤ 3%
Electrical Characteristics	
Excitation voltage	Passive
Resistance(Either signal pin to case)	≥ 10GΩ
+288°C	≥ 10MΩ
Insulation Resistance	≥ 1GΩ
Capacitance	2800pF
Grounding	Signal return isolated from case
Environmental characteristics	
Working temperature	-55°C ~ +288°C
Vibration limit	2000g pk
Shock limit	10000g pk
Humidity	Hermetically sealed
Base strain Sensitivity	0.0016g pk/ μ strain
Thermal transient Sensitivity	0.007g pk/°C
Electromagnetic Sensitivity	0.0002g rms/gauss
Physical characteristics	
Weight	25grams
Case material	Stainless steel
Mounting Torque	2Nm



- Through the assessment of environmental test: Vibration, Shock, Acceleration, Electromagnetic compatibility, Temperature, Altitude, Temperature impact, Mould, Salt mist, Humidity and hot etc.



# E503-100 Accelerometer

## Description

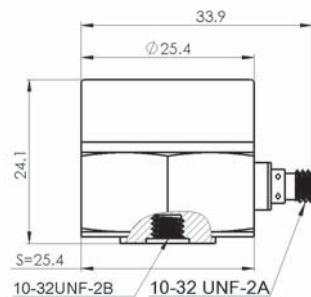
- E503-100 is an isoshear piezoelectric accelerometer, its element is Piezo-crystal in shear mode
- Long stability of output, high Resonant frequency, low base strain sensitivity
- Equipped with one low-noise coaxial cable
- Self-generating device that requires no external power for operation

## Characteristics

- Hermetically sealed
- Ground-isolated
- Side connector
- Temperature compensated to +288 °C
- general vibration measurement



Dynamic Characteristics	
Sensitivity	100pC/g
Non-linearity	≤ 1%
Frequency response (±5%)	1 ~ 5,000Hz
Resonant frequency	20kHz
Transverse Sensitivity	≤ 3%
Electrical Characteristics	
Excitation voltage	Passive
Resistance(Either signal pin to case)	≥ 10GΩ
+288°C	≥ 25MΩ
Insulation Resistance	≥ 1GΩ
Capacitance	2800pF
Grounding	Signal return isolated from case
Environmental characteristics	
Working temperature	-55°C ~ +288°C
Vibration limit	1000g pk
Shock limit	5000g pk
Humidity	Hermetically sealed
Base strain Sensitivity	0.0008g pk/ μ strain
Thermal transient Sensitivity	0.005g pk/ °C
Electromagnetic Sensitivity	0.0002g rms/gauss
Physical characteristics	
Weight	29grams
Case material	Stainless steel
Mounting Torque	2Nm



- Through the assessment of environmental test: Vibration, Shock, Acceleration, Electromagnetic compatibility, Temperature, Altitude, Temperature impact, Mould, Salt mist, Humidity and hot etc.

# E503-200 Accelerometer

## Description

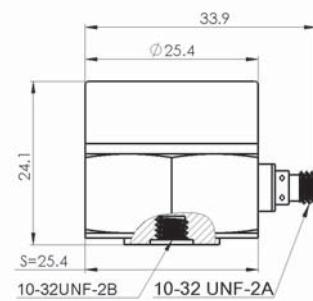
- E503-200 is an isoshear piezoelectric accelerometer, its element is Piezo-crystal in shear mode
- Long stability of output, high Resonant frequency, low base strain sensitivity
- Equipped with one low-noise coaxial cable
- Self-generating device that requires no external power for operation

## Characteristics

- Hermetically sealed
- Ground-isolated
- Side connector
- Temperature compensated to +288 °C
- general vibration measurement
- High output/modal application



Dynamic Characteristics	
Sensitivity	200pC/g
Non-linearity	≤ 1 %
Frequency response ( $\pm 5\%$ )	1 ~ 4,000Hz
Resonant frequency	17kHz
Transverse Sensitivity	≤ 3%
Electrical Characteristics	
Excitation voltage	Passive
Resistance(Either signal pin to case)	≥ 10GΩ
+288°C	≥ 25MΩ
Insulation Resistance	≥ 1GΩ
Capacitance	5600pF
Grounding	Signal return isolated from case
Environmental characteristics	
Working temperature	-55°C ~ +288°C
Vibration limit	850g pk
Shock limit	2000g pk
Humidity	Hermetically sealed
Base strain Sensitivity	0.0004g pk/ μ strain
Thermal transient Sensitivity	0.004g pk/°C
Electromagnetic Sensitivity	0.0002g rms/gauss
Physical characteristics	
Weight	62grams
Case material	Stainless steel
Mounting Torque	2Nm



- Through the assessment of environmental test: Vibration, Shock, Acceleration, Electromagnetic compatibility, Temperature, Altitude, Temperature impact, Mould, Salt mist, Humidity and hot etc.



# E504-50 Accelerometer

## Description

- E504-50 is an isoshear piezoelectric accelerometer, its element is Piezo-crystal in shear mode
- Long stability of output, high Resonant frequency, low base strain sensitivity
- Equipped with one low-noise coaxial cable
- requires no external power for operation

## Characteristics

- Hermetically sealed
- Ground-isolated
- Top connector
- Temperature compensated to +288 °C
- insensitive to base bending



Dynamic Characteristics	
Sensitivity	50pC/g
Non-linearity	≤ 1 %
Frequency response ( $\pm 5\%$ )	1 ~ 6,000Hz
Resonant frequency	26kHz
Transverse Sensitivity	≤ 3%
Electrical Characteristics	
Excitation voltage	Passive
Resistance(Either signal pin to case)	≥ 10GΩ
Insulation Resistance	≥ 1GΩ
Capacitance	2800pF
Grounding	Signal return isolated from case
Environmental characteristics	
Working temperature	-55°C ~ +288°C
Vibration limit	2000g pk
Shock limit	10000g pk
Humidity	Hermetically sealed
Base strain Sensitivity	0.0016g pk/ μ strain
Thermal transient Sensitivity	0.004g pk/ °C
Electromagnetic Sensitivity	0.0002g rms/gauss
Physical characteristics	
Weight	25grams
Case material	Stainless steel
Mounting Torque	2Nm

- Through the assessment of environmental test: Vibration, Shock, Acceleration, Electromagnetic compatibility, Temperature, Altitude, Temperature impact, Mould, Salt mist, Humidity and hot etc.

# E504-100/E504D-100 Accelerometer

## Description

- E504-100/E504D-100 is an isoshear piezoelectric accelerometer,
- its element is Piezo-crystal in shear mode
- Long stability of output, high Resonant frequency, low base strain sensitivity
- Equipped with one low-noise coaxial cable
- requires no external power for operation

## Characteristics

- Hermetically sealed
- Ground-isolated
- Top connector
- Temperature compensated to +288 °C
- insensitive to base bending



Dynamic Characteristics	
Sensitivity	100pC/g
Non-linearity	≤ 1 %
Frequency response ( $\pm 5\%$ )	1 ~ 5,000Hz
Resonant frequency	20kHz
Transverse Sensitivity	≤ 3%
Electrical Characteristics	
Excitation voltage	Passive
Resistance(Either signal pin to case)	≥ 10GΩ
Insulation Resistance	≥ 1GΩ
Capacitance	2800pF
Grounding	Signal return isolated from case
Environmental characteristics	
Working temperature	-55°C ~ +288°C
Vibration limit	1000g pk
Shock limit	5000g pk
Humidity	Hermetically sealed
Base strain Sensitivity	0.0008g pk/ μ strain
Thermal transient Sensitivity	0.0003g pk/°C
Electromagnetic Sensitivity	0.0002g rms/gauss
Physical characteristics	
Weight	29grams
Case material	Stainless steel
Mounting Torque	2Nm

- Through the assessment of environmental test: Vibration, Shock, Acceleration, Electromagnetic compatibility, Temperature, Altitude, Temperature impact, Mould, Salt mist, Humidity and hot etc.





# E521 Accelerometer

## Description

- E521 is a small annular shear piezoelectric Accelerometer
- Use for vibration measurement on small structures and objects
- Long stability of sensitivity output
- Signal isolated from ground
- Equipped with one low-noise coaxial cable

## Characteristics

- Passive, charge output
- High output 17pC/g
- Small volume, light weight (12 grams)
- Signal isolated from ground
- Strong anti-interference ability



Dynamic Characteristics	
Sensitivity( $\pm 10\%$ )	17pC/ g
Non-linearity	$\leq \pm 1\%$
Frequency response: $\pm 5\%$	1 ~ 6,000Hz
Resonant frequency	32kHz
Transverse Sensitivity	$\leq 3\%$
Electrical Characteristics	
Excitation voltage	Passive
Resistance(Either signal pin to case)	$\geq 100G\Omega$
Insulation Resistance	$\geq 10M\Omega$
Capacitance	900pF
Grounding	Signal ground connected to case and isolated to mounting surface
Environmental characteristics	
Working temperature	-55°C ~ +177°C
Vibration limit	1000 g pK
Shock limit	5000 g pK
Humidity	Epoxy sealed
Thermal sensitivity Drift	0.007g pK/°C
Base strain Sensitivity	0.01 g pK/ $\mu$ Strain
Physical characteristics	
Weight	12grams
Case material	Stainless steel

- Through the assessment of environmental test; Vibration, Shock, Acceleration, Electromagnetic compatibility, Temperature, Altitude, Temperature impact, Mould, Salt mist, Humidity and hot etc.

# E521A Accelerometer

## Description

- E521A is a small annular shear piezoelectric Accelerometer
- Use for vibration measurement on small structures and objects
- Long stability of sensitivity output
- Signal isolated from ground
- Equipped with one low-noise coaxial cable

## Characteristics

- Passive, charge output
- High output 10pC/g
- Small volume, light weight (11 grams)
- Signal isolated from ground
- Strong anti-interference ability



Dynamic Characteristics	
Sensitivity( $\pm 5\%$ )	10pC/g
Non-linearity	$\leq \pm 1\%$
Frequency response: $\pm 5\%$ : $\pm 1\text{dB}$	1 ~ 10,000Hz 1 ~ 12,000Hz
Resonant frequency	45kHz
Transverse Sensitivity	$\leq 3\%$
Electrical Characteristics	
Excitation voltage	Passive
Resistance(Either signal pin to case)	$\geq 10\text{G}\Omega$
Insulation Resistance	10M $\Omega$
Capacitance	900pF
Grounding	Signal ground connected to case and isolated to mounting surface
Environmental characteristics	
Working temperature	-55°C ~ +266°C
Vibration limit	1000 g pK
Shock limit	3000 g pK
Humidity	Epoxy sealed
Thermal sensitivity Drift	0.007 g pK/°C
Base strain Sensitivity	0.02 g pK/ $\mu$ Strain
Physical characteristics	
Weight	11grams
Case material	Stainless steel

- Through the assessment of environmental test; Vibration, Shock, Acceleration, Electromagnetic compatibility, Temperature, Altitude, Temperature impact, Mould, Salt mist, Humidity and hot etc.



# E522-20 Accelerometer

## Description

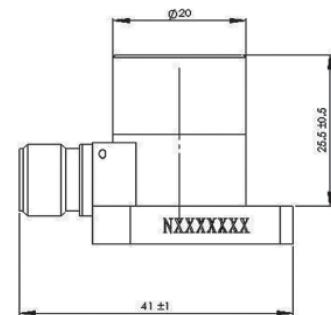
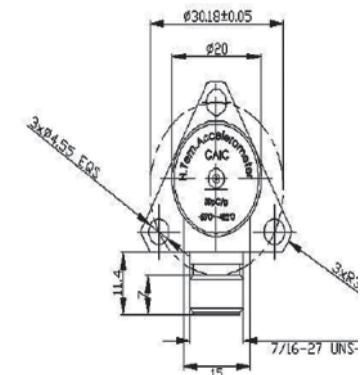
- Use for vibration test on high temperature parts of aviation engine
- Adopt high temperature resistant design, balance differential structure
- Possess long mean time between failure (MTBF), balance differential output
- Use for vibration measurement on turbine engine

## Characteristics

- Passive, charge output
- Continuous working temperature up to +260°C
- Balance differential output
- Ground-isolated
- Strong anti-interference ability, long MTBF



Dynamic Characteristics	
Sensitivity( $\pm 5\%$ )	20pC/g
Resonant frequency	45kHz
Frequency response: $\pm 5\%$	1 ~ 9,000Hz
Transverse Sensitivity	$\leq 3\%$
Non-linearity	1%
Electrical Characteristics	
Resistance (Either signal pin to case)	$\geq 10G\Omega$
+260°C	$\geq 10M\Omega$
Insulation Resistance	$\geq 10G\Omega$
+260°C	$\geq 50M\Omega$
Capacitance	2800pF
Either signal pin to case	$\leq 30pF$
Unbalance between pin	$\leq 2pF$
Grounding	Signal return isolated from case
Environmental characteristics	
Working temperature	-55°C ~ +260°C
Vibration limit	2000 g pK
Shock limit	4000 g pK
Base strain Sensitivity	1.0 g pk/ $\mu$ strain
Thermal transient Sensitivity	0.0036 g pK/°C
Humidity	Epoxy sealed
Physical characteristics	
Weight	91grams
Case material	Inconel



- Through the assessment of environmental test; Vibration, Shock, Acceleration, Electromagnetic compatibility, Temperature, Altitude, Temperature impact, Mould, Salt mist, Humidity and hot etc.

# E522-50 Accelerometer

## Description

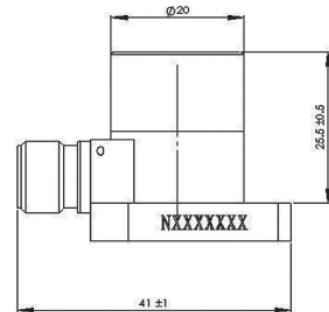
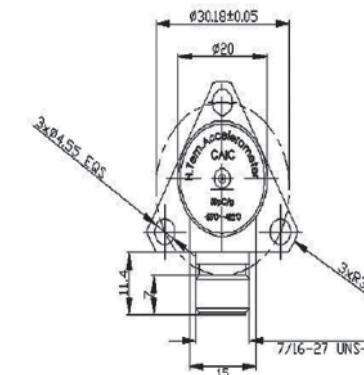
- Use for vibration test on high temperature parts of aviation engine
- Adopt high temperature resistant design, balance differential structure
- Possess long mean time between failure (MTBF), balance differential output
- Use for vibration measurement on turbine engine

## Characteristics

- Passive, charge output
- Continuous working temperature up to +260°C
- Balance differential output
- Ground-isolated
- Strong anti-interference ability, long MTBF



Dynamic Characteristics	
Sensitivity( $\pm 5\%$ )	50pC/g
Resonant frequency	28kHz
Frequency response: $\pm 5\%$	1 ~ 6,000Hz
Transverse Sensitivity	$\leq 3\%$
Non-linearity	1%
Electrical Characteristics	
Resistance (Either signal pin to case)	$\geq 10G\Omega$
+260°C	$\geq 10M\Omega$
Insulation Resistance	$\geq 10G\Omega$
+260°C	$\geq 50M\Omega$
Capacitance	2800pF
Either signal pin to case	$\leq 30pF$
Unbalance between pin	$\leq 2pF$
Grounding	Signal return isolated from case
Environmental characteristics	
Working temperature	-55°C ~ +260°C
Vibration limit	1000 g pK
Shock limit	2000 g pK
Base strain Sensitivity	0.4g pk/ $\mu$ strain
Thermal transient Sensitivity	0.018 g pK/ °C
Humidity	Epoxy sealed
Physical characteristics	
Weight	91grams
Case material	Inconel



- Through the assessment of environmental test: Vibration, Shock, Acceleration, Electromagnetic compatibility, Temperature, Altitude, Temperature impact, Mould, Salt mist, Humidity and hot etc.



# E522-100Accelerometer

## Description

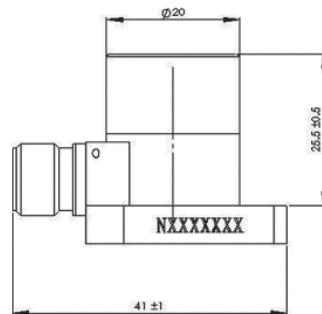
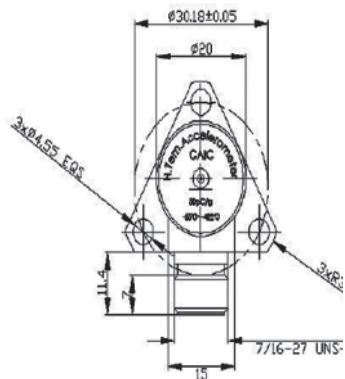
- Use for vibration test on high temperature parts of aviation engine
- Adopt high temperature resistant design, balance differential structure
- Possess long mean time between failure (MTBF), balance differential output
- Use for vibration measurement on turbine engine

## Characteristics

- Passive, charge output
- Continuous working temperature up to +260°C
- Balance differential output
- Ground-isolated
- Strong anti-interference ability, long MTBF



Dynamic Characteristics	
Sensitivity( $\pm 5\%$ )	100pC/g
Resonant frequency	28kHz
Frequency response: $\pm 5\%$	1 ~ 6,000Hz
Transverse Sensitivity	$\leq 3\%$
Non-linearity	1%
Electrical Characteristics	
Resistance (Either signal pin to case)	$\geq 10G\Omega$
+260°C	$\geq 10M\Omega$
Insulation Resistance	$\geq 10G\Omega$
+260°C	$\geq 50M\Omega$
Capacitance	12200pF
Either signal pin to case	$\leq 30pF$
Unbalance between pin	$\leq 2pF$
Grounding	Signal return isolated from case
Environmental characteristics	
Working temperature	-55°C ~ +260°C
Vibration limit	500 g pK
Shock limit	1000 g pK
Base strain Sensitivity	0.2 g pk/ $\mu$ strain
Thermal transient Sensitivity	0.009g pK/°C
Humidity	Epoxy sealed
Physical characteristics	
Weight	91grams
Case material	Inconel



- Through the assessment of environmental test; Vibration, Shock, Acceleration, Electromagnetic compatibility, Temperature, Altitude, Temperature impact, Mould, Salt mist, Humidity and hot etc.

# E523 Triaxial Accelerometer

## Description

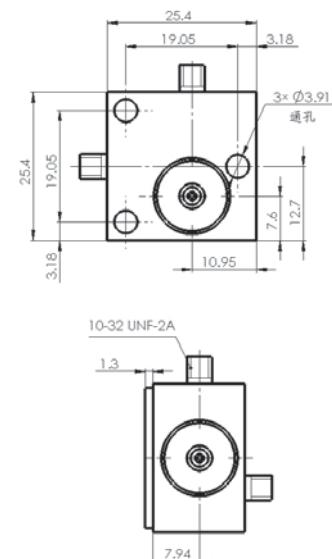
- E523 is a triaxial piezoelectric accelerometer, its element is piezo-crystal in annular shear mode
- Long stability of sensitivity output
- Equipped with one low-noise coaxial cable

## Characteristics

- 12pC/g
- Triaxial
- Light weight (41grams)
- Ground-isolated
- General purpose and package testing



Dynamic Characteristics	
Sensitivity( $\pm 10\%$ )	12pC/g
Non-linearity	$\leq 1\%$
Frequency response	
$\pm 5\%$ (x,y)	1 ~ 3,000Hz
$\pm 5\%$ (z)	1 ~ 6,000Hz
Resonant frequency	
X,Y	14kHz
Z	28kHz
Transverse Sensitivity	$\leq 5\%$
Electrical Characteristics	
Resistance	$\geq 10G\Omega$
	$\geq 1G\Omega$
Capacitance	800pF
Grounding	Signal return isolated from case
Environmental characteristics	
Working temperature	-55°C ~ +177°C
Vibration limit	1000 g pK
Shock limit	2000 g pK
Humidity	Epoxy sealed
Thermal sensitivity Drift	0.004g pK/°C
Base strain Sensitivity	0.02g pK/μ Strain
Electromagnetic sensitivity	0.01g rms/gauss
Physical characteristics	
Weight	41grams
Case material	Stainless steel



- Through the assessment of environmental test; Vibration, Shock, Acceleration, Electromagnetic compatibility, Temperature, Altitude, Temperature impact, Mould, Salt mist, Humidity and hot etc.



# E524 Accelerometer

## Description

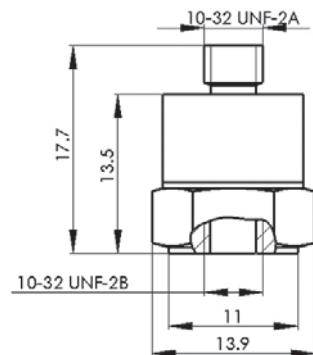
- E524 is a general purpose piezoelectric accelerometer, its element is piezo-crystal in annular shear mode
- Long stability of sensitivity output
- Equipped with one low-noise coaxial cable

## Characteristics

- Low cost
- Rugged
- Small size
- Top connector
- General purpose vibration measurement



Dynamic Characteristics	
Sensitivity	12pC/g
Non-linearity	$\leq \pm 1\%$
Frequency response	1 ~ 6,000Hz
Resonant frequency	32kHz
Transverse Sensitivity	$\leq 3\%$
Electrical Characteristics	
Resistance	$\geq 10G\Omega$
Capacitance	800 pF
Grounding	Signal ground common to transducer case
Environmental characteristics	
Working temperature	-55°C ~ +177°C
Vibration limit	1000 g pK
Shock limit	2000 g pK
Humidity	Epoxy sealed
Electromagnetic sensitivity	0.002 g pk/ $\mu$ strain
Thermal sensitivity Drift	0.002 g pK/°C
Base strain Sensitivity	0.0001 g rms/ Strain
Physical characteristics	
Weight	16grams
Case Material	Stainless steel
Mounting Torque	2Nm



- Through the assessment of environmental test; Vibration, Shock, Acceleration, Electromagnetic compatibility, Temperature, Altitude, Temperature impact, Mould, Salt mist, Humidity and hot etc.

# E525-20K Accelerometer

## Description

- E525-20k is light weight piezoelectric, its element is piezo-crystal in annular shear mode
- Long stability of output, high resonance frequency, low base strain sensitivity
- Equipped with one low-noise coaxial cable

## Characteristics

- High-g shock
- Industrial Standard
- Rugged, require no external power
- Annular shear mode
- shock measurement on tested article and structure

Dynamic Characteristics	
Sensitivity	0.75pC/g
Non-linearity	$\leq \pm 2\%$
Frequency response	1 ~ 10,000Hz
Resonant frequency	100kHz
Transverse Sensitivity	$\leq 5\%$
Electrical Characteristics	
Resistance	$\geq 10G\Omega$
Excitation Voltage	Passive
Capacitance	800 pF
Grounding	Signal return connected to case
Environmental characteristics	
Working temperature	-55°C ~ +177°C
Vibration limit	10000g pK
Shock limit	20000g pK
Humidity	Epoxy sealed
Base strain Sensitivity	0.03g pk/ $\mu$ strain
Thermal sensitivity Drift	0.009 pK/°C
Physical characteristics	
Weight	13grams
Case Material	Stainless steel
Mounting Torque	2Nm

- Through the assessment of environmental test; Vibration, Shock, Acceleration, Electromagnetic compatibility, Temperature, Altitude, Temperature impact, Mould, Salt mist, Humidity and hot etc.



# E525-100K Accelerometer

## Description

- E525-100k is light weight piezoelectric, its element is piezo-crystal in annular shear mode
- Long stability of output, high resonance frequency, low base strain sensitivity
- Equipped with one low-noise coaxial cable

## Characteristics

- High-g shock
- Rugged, require no external power
- Annular shear mode
- shock measurement on tested article and structure

Dynamic Characteristics	
Sensitivity	0.025pC/g
Non-linearity	$\leq \pm 10\%$
Frequency response ( $\pm 10\%$ )	1 ~ 10,000Hz
Resonant frequency	80kHz
Transverse Sensitivity	$\leq 5\%$
Electrical Characteristics	
Resistance	$\geq 10G\Omega$
Excitation Voltage	Passive
Capacitance	96 pF
Grounding	Signal return connected to case
Environmental characteristics	
Working temperature	-55°C ~ +177°C
Vibration limit	10000g pK
Shock limit	100000g pK
Humidity	Epoxy sealed
Thermal sensitivity Drift	0.009 pK/°C
Physical characteristics	
Weight	13grams
Case Material	Stainless steel
Mounting Torque	2.7Nm

- Through the assessment of environmental test; Vibration, Shock, Acceleration, Electromagnetic compatibility, Temperature, Altitude, Temperature impact, Mould, Salt mist, Humidity and hot etc.



# E526 Accelerometer

## Description

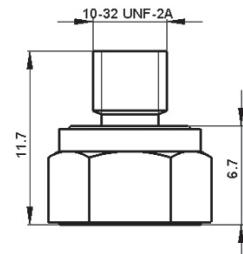
- E526 is a general purpose accelerometer; its element is piezo-crystal in annular shear mode
- Long stability of sensitivity
- Equipped with one low-noise, flexible coaxial cable
- Typically used for small package testing and general adhesive mount application

## Characteristics

- Light weight (2.8grams)
- High temperature to +177°C
- Adhesive mounting
- Top connector
- Vibration measurement on small structure



Dynamic Characteristics	
Sensitivity	2.8pC/g
Non-linearity	$\leq \pm 1\%$
Frequency response ( $\pm 5\%$ )	2 ~ 5,000Hz
$\pm 1\text{dB}$	1 ~ 10,000Hz
Resonant frequency	21kHz
Transverse Sensitivity	$\leq 3\%$
Electrical Characteristics	
Resistance	$\geq 10\text{G}\Omega$
Excitation Voltage	Passive
Capacitance	400 pF
Grounding	Signal return connected to case
Environmental characteristics	
Working temperature	-55°C ~ +177°C
Vibration limit	1000g pK
Shock limit	20000g pK
Humidity	Epoxy sealed
Base strain Sensitivity	0.001g pk/ $\mu$ strain
Thermal sensitivity Drift	0.014pK/°C
Electromagnetic sensitivity	0.001g rms/gauss
Physical characteristics	
Weight	2.8grams
Case Material	Stainless steel
Mounting	Flat surface provided for adhesive mounting



- Through the assessment of environmental test; Vibration, Shock, Acceleration, Electromagnetic compatibility, Temperature, Altitude, Temperature impact, Mould, Salt mist, Humidity and hot etc.



# E528 Triaxial Accelerometer

## Description

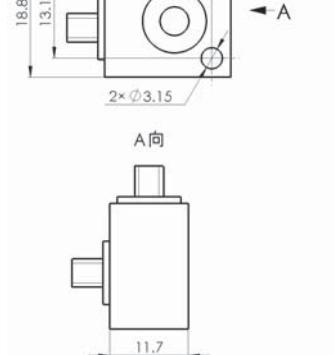
- E528 is a small triaxial piezoelectric accelerometer and its element is piezo-crystal in annular shear mode
- Vibration measurement in three orthogonal axes on small structures and objects
- Long stability of sensitivity output
- Equipped with one low-noise, flexible coaxial cable

## Characteristics

- Triaxial
- vibration measurement in three orthogonal axis
- Light weight, 15grams
- Ground-isolated
- Requires no external power



Dynamic Characteristics	
Sensitivity	2.8pC/g
Non-linearity	$\leq \pm 1\%$
Frequency response: $\pm 5\%$	10 ~ 4,000Hz
Resonant frequency	21kHz
Transverse Sensitivity	$\leq 5\%$
Electrical Characteristics	
Excitation voltage	Passive
Output Resistance	$\geq 10G\Omega$
Insulation Resistance	$\geq 10M\Omega$
Capacitance	400 pF
Grounding	Each sensor is isolated from the anodized aluminum case
Environmental characteristics	
Working temperature	-55°C ~ +177°C
Vibration limit	1000 g pK
Shock limit	2000 g pK
Humidity	Epoxy sealed
Base strain Sensitivity	0.01 g rms/ Strain
Physical characteristics	
Weight	15grams
Case Material	Aluminum alloy case, hard anodized, nickel alloy sensor
Mounting Torque	1Nm



- Through the assessment of environmental test; Vibration, Shock, Acceleration, Electromagnetic compatibility, Temperature, Altitude, Temperature impact, Mould, Salt mist, Humidity and hot etc.

# E529 Accelerometer

## Description

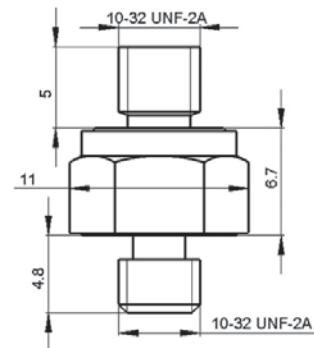
- E529 is a miniature, stud mounted piezoelectric accelerometer and its sensitive element is piezo-crystal in annular shear mode
- Long stability of sensitivity output
- Equipped with one low-noise, flexible coaxial cable

## Characteristics

- Miniature, stud mounted
- Vibration measurement on small structure
- Light weight, 4.9grams
- Ground-isolated
- Requires no external power
- Top connector



Dynamic Characteristics	
Sensitivity	2.8pC/g
Non-linearity	$\leq \pm 1\%$
Frequency response	1 ~ 5,000Hz
Resonant frequency	21kHz
Transverse Sensitivity	$\leq 5\%$
Electrical Characteristics	
Excitation voltage	Passive
Output Resistance	$\geq 10G\Omega$
Insulation Resistance	$\geq 10M\Omega$
Capacitance	400 pF
Grounding	Signal return is isolated from case
Environmental characteristics	
Working temperature	-55°C ~ +177°C
Vibration limit	1000 g pk
Shock limit	2000 g pk
Humidity	Epoxy sealed
Electromagnetic sensitivity	0.001g rms/ Strain
Base strain Sensitivity	0.005g pk/ $\mu$
Thermal transient Sensitivity	0.007 g pk/°C
Physical characteristics	
Weight	4.9grams
Case material	Stainless steel
Mounting Torque	2Nm



- Through the assessment of environmental test: Vibration, Shock, Acceleration, Electromagnetic compatibility, Temperature, Altitude, Temperature impact, Mould, Salt mist, Humidity and hot etc.



# E533-10 High Temperature Accelerometer

## Applications

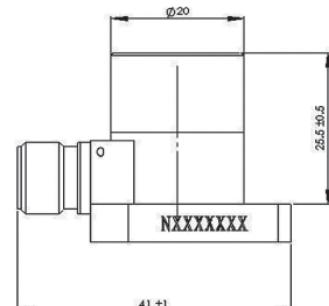
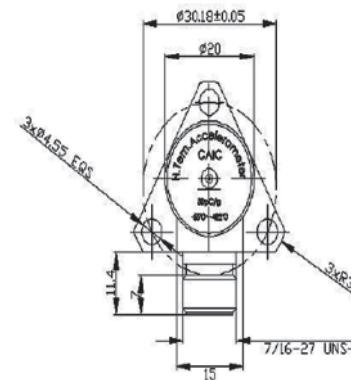
- Used for vibration test on high temperature parts of aviation engine
- Adopt high temperature resistant design, balance differential structure
- Long mean time between failure (MTBF), balance differential output
- Used for vibration measurement on turbine engine

## Characteristics

- Charge sensitivity: 10pC/g
- Continuous working temperature up to +482°C
- Hermetically sealed
- Firm military standard design of connector
- Ground-isolated



Dynamic Characteristics	
Sensitivity( $\pm 5\%$ )	10pC/g
Non-linearity	$\leq 1\%$
Frequency response( $\pm 5\%$ )	1 ~ 5,000Hz
Resonant frequency	31kHz
Transverse Sensitivity	$\leq 1 \%$
Electrical Characteristics	
Excitation voltage	Passive
Resistance (Either signal pin to case)	$\geq 1G\Omega$
+482°C	$\geq 10M\Omega$
Insulation Resistance	$\geq 100M\Omega$
+482°C	$\geq 10M\Omega$
Capacitance	725pF
Grounding	Signal return is isolated from case
Environmental characteristics	
Working temperature	-55°C ~ +482°C
Vibration limit	1000 g pK
Shock limit	2000 g pK
Humidity	Hermetically sealed
Base strain Sensitivity	0.002 g pK/ $\mu$ Strain
Thermal sensitivity Drift	0.18 g pK/°C
Physical characteristics	
Sensitive element	High temperature piezoelectric crystal
Output mode	Side output
Weight	$\leq 100$ grams
Case material	INCONEL
Mounting Torque	1.6Nm



- Through the assessment of environmental test: Vibration, Shock, Acceleration, Electromagnetic compatibility, Temperature, Altitude, Temperature impact, Mould, Salt mist, Humidity and hot etc.



# E533-50 High Temperature Accelerometer

## Applications

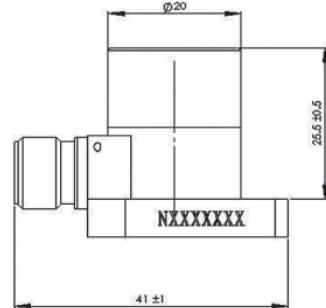
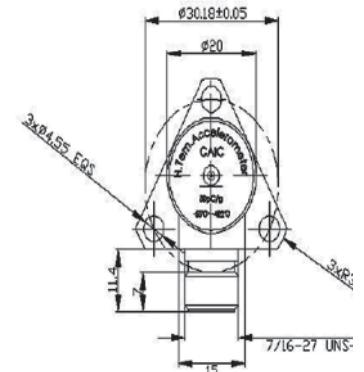
- Used for vibration test on high temperature parts of aviation engine
- Adopt high temperature resistant design, balance differential structure
- Long mean time between failure (MTBF), balance differential output
- Used for vibration measurement on turbine engine

## Characteristics

- Charge sensitivity: 50pC/g
- Continuous working temperature up to +482°C
- Hermetically sealed
- Firm military standard design of connector
- Ground-isolated



Dynamic Characteristics	
Sensitivity( $\pm 5\%$ )	50pC/g
Non-linearity	$\leq 1\%$
Frequency response( $\pm 5\%$ )	10 ~ 25,00Hz
Resonant frequency	16kHz
Transverse Sensitivity	$\leq 1 \%$
Electrical Characteristics	
Excitation voltage	Passive
Resistance (Either signal pin to case)	$\geq 1G\Omega$
+482°C	$\geq 10M\Omega$
Insulation Resistance	$\geq 100M\Omega$
+482°C	$\geq 10M\Omega$
Capacitance	1350pF
Grounding	Signal return is isolated from case
Environmental characteristics	
Working temperature	-55°C ~ +482°C
Vibration limit	1000 g pK
Shock limit	2000 g pK
Humidity	Hermetically sealed
Base strain Sensitivity	0.0024 g pK/ $\mu$ Strain
Thermal sensitivity Drift	0.09 g pK/°C
Physical characteristics	
Sensitive element	High temperature piezoelectric crystal
Output mode	Side output
Weight	$\leq 100$ grams
Case material	INCONEL
Mounting Torque	1.6Nm



- Through the assessment of environmental test; Vibration, Shock, Acceleration, Electromagnetic compatibility, Temperature, Altitude, Temperature impact, Mould, Salt mist, Humidity and hot etc.



# E533-100 High Temperature Accelerometer

## Applications

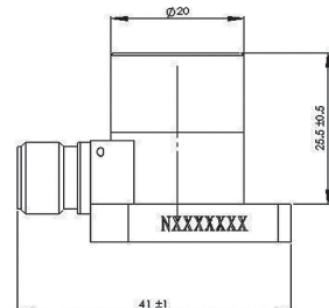
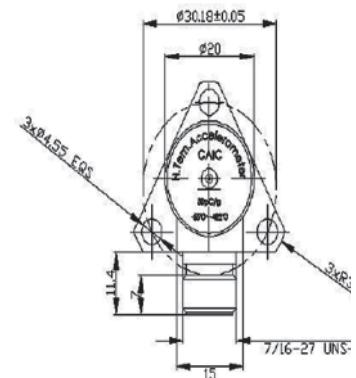
- Used for vibration test on high temperature parts of aviation engine
- Adopt high temperature resistant design, balance differential structure
- Long mean time between failure (MTBF), balance differential output
- Used for vibration measurement on turbine engine

## Characteristics

- Charge sensitivity: 100pC/g
- Continuous working temperature up to +482°C
- Hermetically sealed
- Firm military standard design of connector
- Ground-isolated



Dynamic Characteristics	
Sensitivity( $\pm 5\%$ )	100pC/g
Non-linearity	$\leq 1\%$
Frequency response( $\pm 5\%$ )	10 ~ 2,000Hz
Resonant frequency	12kHz
Transverse Sensitivity	$\leq 1 \%$
Electrical Characteristics	
Excitation voltage	Passive
Resistance (Either signal pin to case)	$\geq 1G\Omega$
+482°C	$\geq 10M\Omega$
Insulation Resistance	$\geq 100M\Omega$
+482°C	$\geq 10M\Omega$
Capacitance	2300pF
Grounding	Signal return is isolated from case
Environmental characteristics	
Working temperature	-55°C ~ +482°C
Vibration limit	500 g pK
Shock limit	1000 g pK
Humidity	Hermetically sealed
Base strain Sensitivity	0.002 g pK/ $\mu$ Strain
Thermal sensitivity Drift	0.03 g pK/°C
Physical characteristics	
Sensitive element	High temperature piezoelectric crystal
Output mode	Side output
Weight	$\leq 110$ grams
Case material	INCONEL
Mounting Torque	1.6Nm



- Through the assessment of environmental test; Vibration, Shock, Acceleration, Electromagnetic compatibility, Temperature, Altitude, Temperature impact, Mould, Salt mist, Humidity and hot etc.

# E540-10 High Temperature Accelerometer

## Applications

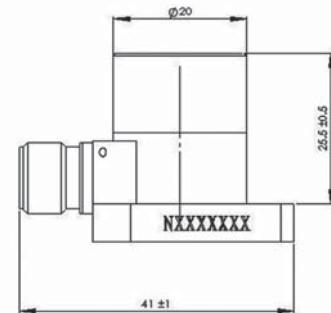
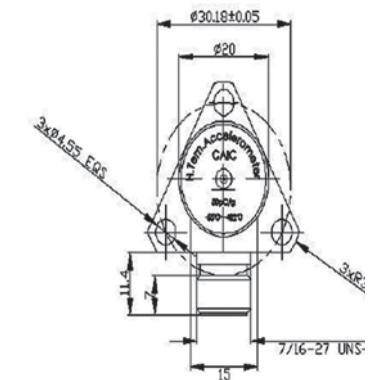
- Used for vibration test on high temperature parts of aviation engine
- Adopt high temperature resistant design, balance differential structure
- Long mean time between failure (MTBF), balance differential output
- Used for vibration measurement on turbine engine
- Aircraft gas-turbine testing

## Characteristics

- Passive, charge output
- Continuous working temperature  $-200^{\circ}\text{C} \sim +649^{\circ}\text{C}$  (E540HL-10)
- Hermetically sealed, ground-isolated
- High temperature response
- high stability, excellent reliability & durability under harsh environment



Dynamic Characteristics	
Sensitivity( $\pm 10\%$ )	10pC/g
Resonant frequency	16kHz
Frequency response: $\pm 5\%$	5 ~ 2,500Hz
Transverse Sensitivity	$\leq 5\%$
Non-linearity	1%
Electrical Characteristics	
Excitation voltage	Passive
Resistance	$\geq 1\text{G}\Omega$
$+649^{\circ}\text{C}$	$\geq 10\text{M}\Omega$
Insulation Resistance	$\geq 100\text{M}\Omega$
$+649^{\circ}\text{C}$	$\geq 10\text{M}\Omega$
Capacitance	150pF
Grounding	Signal return is isolated from case
Environmental characteristics	
Working temperature	$-200^{\circ}\text{C} \sim +649^{\circ}\text{C}$
Humidity	Hermetically sealed
Vibration limit	1000 g pK
Shock limit	2000 g pK
Base strain Sensitivity	0.002 g pK/ $\mu$ Strain
Thermal sensitivity Drift	0.07 g pK/ $^{\circ}\text{C}$
Physical characteristics	
Weight	100grams
Case material	INCONEL
Mounting Torque	1.6Nm



- Through the assessment of environmental test, Vibration, Shock, Acceleration, Electromagnetic compatibility, Temperature, Altitude, Temperature impact, Mould, Salt mist, Humidity and hot etc.



# E571A1 Accelerometer

## Description

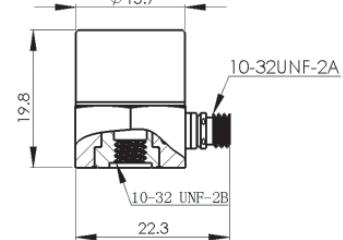
- E571A1 is a wide Working temperature piezoelectric accelerometer and its sensitive element is piezo-crystal in compressed mode
- Long stability of sensitivity, signal ground is isolated from the outer case
- E571A1 Adopt 10–32 side-connector, Equipped with one low-noise, wide-temperature coaxial cable

## Characteristics

- Passive, charge output
- vibration measurement at cryogenic temperature
- Hermetically sealed
- Signal return isolated from case
- Continuous working temperature  
-200°C ~ +260°C
- Side-connector



Dynamic Characteristics	
Sensitivity( $\pm 10\%$ )	11pC/g
Non-linearity	$\leq 3\%$
Frequency response ( $\pm 5\%$ )	2 ~ 4,000Hz
Resonant frequency	27kHz
Transverse Sensitivity	$\leq 3\%$
Electrical Characteristics	
Excitation voltage	Passive
Resistance	$\geq 10G\Omega$
+260°C	$\geq 10M\Omega$
Insulation Resistance	1GΩ
Capacitance	2000pF
Grounding	Signal return is isolated from case
Environmental characteristics	
Working temperature	-200°C ~ +260°C
Vibration limit	1000 g pK
Shock limit	10000 g pK
Humidity	Hermetically sealed
Base strain Sensitivity	0.002 g pK/ $\mu$ Strain
Physical characteristics	
Weight	25grams
Case material	Stainless steel
Mounting Torque	2Nm



- Through the assessment of environmental test; Vibration, Shock, Acceleration, Electromagnetic compatibility, Temperature, Altitude, Temperature impact, Mould, Salt mist, Humidity and hot etc.

# E571A2 Accelerometer

## Description

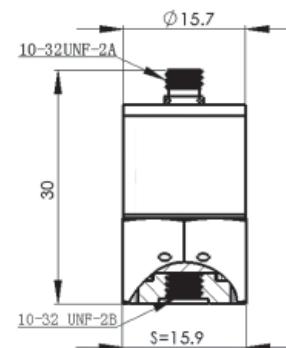
- E571A2 is a wide Working temperature piezoelectric accelerometer and its sensitive element is piezo-crystal in compressed mode
- Long stability of sensitivity, signal ground is isolated from the outer case
- E571A2 Adopts 10-32 top-connector, Equipped with one low-noise coaxial cable
- Use for Nuclear-reactor-vibration and loose-parts-monitoring systems

## Characteristics

- Passive, charge output
- vibration measurement at cryogenic temperature
- Hermetically sealed
- Signal return isolated from case
- Continuous working temperature  
-200°C ~ +260°C
- Top connector



Dynamic Characteristics	
Sensitivity( $\pm 10\%$ )	11pC/g
Non-linearity	$\leq 3\%$
Frequency response ( $\pm 5\%$ )	2 ~ 4,000Hz
Resonant frequency	27kHz
Transverse Sensitivity	$\leq 3\%$
Electrical Characteristics	
Excitation voltage	Passive
Resistance	$\geq 10G\Omega$
+260°C	$\geq 10M\Omega$
Insulation Resistance	1GΩ
Capacitance	2000pF
Grounding	Signal return is isolated from case
Environmental characteristics	
Working temperature	-200°C ~ +260°C
Vibration limit	1000 g pK
Shock limit	10000 g pK
Humidity	Hermetically sealed
Base strain Sensitivity	0.002 g pK/ $\mu$ Strain
Physical characteristics	
Weight	25grams
Case material	Stainless steel
Mounting Torque	2Nm



- Through the assessment of environmental test; Vibration, Shock, Acceleration, Electromagnetic compatibility, Temperature, Altitude, Temperature impact, Mould, Salt mist, Humidity and hot etc.



# E573 Accelerometer

## Description

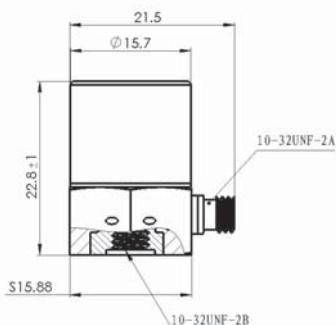
- E573 is a precision piezoelectric accelerometer for in industrial or laboratory applications
- Requires no external power

## Characteristics

- Radiation hardened
- Side mounted receptacle
- Case grounded
- Operates at high temperature +400°C



Dynamic Characteristics	
Sensitivity	3.0pC/g
Non-linearity	≤ 1%
Frequency response ( $\pm 5\%$ )	1 ~ 6,000Hz
Resonant frequency	30kHz
Transverse Sensitivity	≤ 3%
Electrical Characteristics	
Excitation voltage	Passive
Resistance	≥ 1GΩ
+399°C	≥ 10MΩ
Capacitance	110pF
Grounding	Signal return is isolated from case
Environmental characteristics	
Working temperature	-184°C ~ +400°C
Vibration limit	1000 g pK
Shock limit	10000 g pK
Humidity	Hermetically sealed
Base strain Sensitivity	0.004 g pK/ μ Strain
Electromagnetic Sensitivity	0.0003g rms/
Physical characteristics	
Weight	25grams
Case material	Stainless steel
Mounting Torque	2Nm



- Through the assessment of environmental test; Vibration, Shock, Acceleration, Electromagnetic compatibility, Temperature, Altitude, Temperature impact, Mould, Salt mist, Humidity and hot etc.

# E573A1 Accelerometer

## Applications

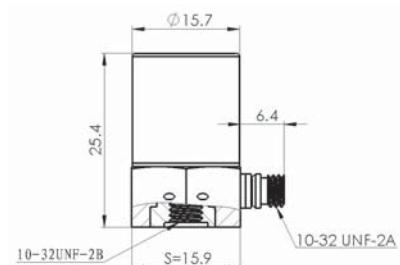
- Use for Nuclear-reactor-vibration and loose-parts-monitoring systems
- A flat temperature response over the whole Working temperature
- Mechanical Insulation Resistance of the seismic system from the mounting base

## Characteristics

- Radiation hardened
- Side-connector
- Requires no external power
- Operates at high temperature +400 °C
- Reactor and loose-parts testing



Dynamic Characteristics	
Sensitivity	10pC/g
Non-linearity	≤ 1%
Frequency response ( $\pm 5\%$ )	20 ~ 5,000Hz
Resonant frequency	27kHz
Transverse Sensitivity	≤ 3%
Electrical Characteristics	
Excitation voltage	Passive
Resistance	$\geq 1G\Omega$
Resistance at +399°C	$\geq 10M\Omega$
Insulation Resistance	$\geq 1G\Omega$
Capacitance	110pF
Grounding	Signal return is isolated from case
Environmental characteristics	
Working temperature	-184°C ~ +400°C
Vibration limit	1000 g pK
Shock limit	10000 g pK
Humidity	Hermetically sealed
Base strain Sensitivity	0.004 g pK/ $\mu$ Strain
Electromagnetic Sensitivity	0.0003g rms/
Physical characteristics	
Weight	25grams
Case material	Stainless steel
Mounting Torque	2Nm



- Through the assessment of environmental test; Vibration, Shock, Acceleration, Electromagnetic compatibility, Temperature, Altitude, Temperature impact, Mould, Salt mist, Humidity and hot etc.



# E573A2 Accelerometer

## Applications

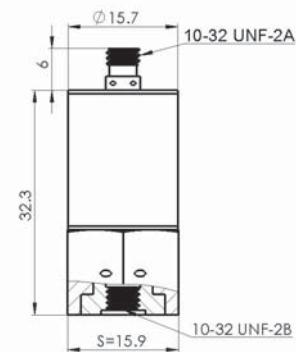
- Use for Nuclear-reactor-vibration and loose-parts-monitoring systems
- A flat temperature response over the whole Working temperature
- Mechanical Insulation Resistance of the seismic system from the mounting base
- Reactor and loose-parts testing

## Characteristics

- Radiation hardened
- Side-connector
- Requires no external power
- Operates at high temperature +400 °C



Dynamic Characteristics	
Sensitivity	10pC/g
Non-linearity	≤ 1%
Frequency response (±5%)	20 ~ 5,000Hz
Resonant frequency	27kHz
Transverse Sensitivity	≤ 3%
Electrical Characteristics	
Excitation voltage	Passive
Resistance	≥ 1GΩ
+399°C	≥ 10MΩ
Insulation Resistance	≥ 1GΩ
Capacitance	660pF
Grounding	Signal return is isolated from case
Environmental characteristics	
Working temperature	-55°C ~ +400°C
Vibration limit	500 g pK
Shock limit	3000 g pK
Humidity	Hermetically sealed
Base strain Sensitivity	0.004 g pK/ μ Strain
Physical characteristics	
Weight	32grams
Case material	Stainless steel
Mounting Torque	2Nm



- Through the assessment of environmental test: Vibration, Shock, Acceleration, Electromagnetic compatibility, Temperature, Altitude, Temperature impact, Mould, Salt mist, Humidity and hot etc.

# E576 Accelerometer

## Applications

- Applies in high temperature vibration environment
- Nuclear radiation and high temperature application

## Characteristics

- Radiation hardened
- Sideconnector
- Requires no external power
- Continuous working temperature up to +482°C



Dynamic Characteristics	
Sensitivity	10pC/g
Non-linearity	≤ 1%
Frequency response (±5%)	1 ~ 5,000Hz
Resonant frequency	27kHz
Transverse Sensitivity	≤ 3%
Electrical Characteristics	
Excitation voltage	Passive
Resistance	≥ 1GΩ
+482°C	≥ 100KΩ
Capacitance	660pF
Grounding	Signal return is isolated from case
Environmental characteristics	
Working temperature	-55°C ~ +482°C
Vibration limit	500 g pK
Shock limit	3000 g pK
Humidity	Hermetically sealed
Base strain Sensitivity	0.002 g pK/ μ Strain
Radiation	
Integrated gamma flux	up to $6.2 \times 10^{10}$ rad
Integrated neutron flux	up to $3.7 \times 10^{18}$ N/cm <sup>2</sup>
Physical characteristics	
Weight	30grams
Case material	Stainless steel
Mounting Torque	2Nm

- Through the assessment of environmental test: Vibration, Shock, Acceleration, Electromagnetic compatibility, Temperature, Altitude, Temperature impact, Mould, Salt mist, Humidity and hot etc.



# E578 Accelerometer

## Applications

- Applies in high temperature vibration environment
- Nuclear radiation and high temperature application

## Characteristics

- Radiation hardened
- Side—connector
- Requires no external power
- Continuous working temperature up to  $-200^{\circ}\text{C} \sim +500^{\circ}\text{C}$



Dynamic Characteristics	
Sensitivity	10pC/g
Non-linearity	$\leq 1\%$
Frequency response ( $\pm 5\%$ )	1 ~ 5,000Hz
Resonant frequency	27kHz
Transverse Sensitivity	$\leq 3\%$
Electrical Characteristics	
Excitation voltage	Passive
Resistance	$\geq 1\text{G}\Omega$
+482°C	$\geq 100\text{K}\Omega$
Capacitance	660pF
Grounding	Signal return is isolated from case
Environmental characteristics	
Working temperature	$-200^{\circ}\text{C} \sim +500^{\circ}\text{C}$
Vibration limit	500 g pK
Shock limit	3000 g pK
Humidity	Hermetically sealed
Base strain Sensitivity	0.002 g pK/ $\mu$ Strain
Radiation	
Integrated gamma flux	up to $6.2 \times 10^{10}$ rad
Integrated neutron flux	up to $3.7 \times 10^{18}$ N/cm <sup>2</sup>
Physical characteristics	
Weight	30grams
Case material	Stainless steel
Mounting Torque	2Nm

- Through the assessment of environmental test: Vibration, Shock, Acceleration, Electromagnetic compatibility, Temperature, Altitude, Temperature impact, Mould, Salt mist, Humidity and hot etc.

# E621 Accelerometer

## Applications

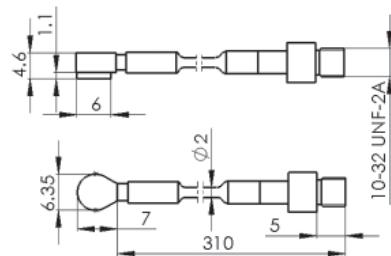
- Electronics (Mobile phone, Notebook Computer)
- Micro-structure vibration measurement
- UAV (Unmanned Aerial Vehicle)
- Low g value
- Small aircraft (Flight testing)

## Characteristics

- Weight Light (0.5grams)
- Signal return isolated from case
- Requires no external power
- Adhesive mounting
- Vibration measurement on small structure



Dynamic Characteristics	
Charge sensitivity	
Typical	1.4pC/g
Minimum	1.0pC/g
Frequency response ( $\pm 5\%$ )	0.5 ~ 8,000Hz
Resonant frequency	37kHz
Transverse Sensitivity ( $\pm 10\%$ )	1 ~ 9,000Hz
Transverse Sensitivity	$\leq 5\%$
Non-linearity (0 ~ 2000g)	1%
Electrical Characteristics	
Resistance	$\geq 10G\Omega$
Capacitance	470pF
Grounding	Signal return is isolated from case
Environmental characteristics	
Working temperature	-73°C ~ +177°C
Humidity	Sealed by silicon compound
Vibration limit	1000 g pK
Shock limit	10000 g pK
Base strain Sensitivity	0.04 g pK/ $\mu$ Strain
Physical characteristics	
Weight	0.9 ± 0.1grams
Case material	Aluminum, hard anodized
Mounting	Adhesive
Accessory	300mm E3011 low-noise cable



- Through the assessment of environmental test: Vibration, Shock, Acceleration, Electromagnetic compatibility, Temperature, Altitude, Temperature impact, Mould, Salt mist, Humidity and hot etc.



# E622 Accelerometer

## Applications

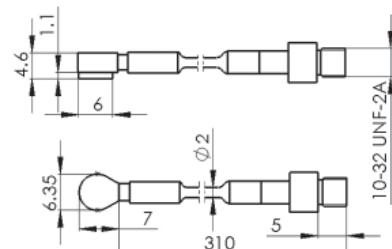
- Electronics (Mobile phone, Notebook Computer)
- Micro—structure vibration measurement
- UAV (Unmanned Aerial Vehicle)
- Low g value
- Small aircraft (Flight testing)

## Characteristics

- Weight Light (0.8grams)
- Signal return isolated from case
- Requires no external power
- Adhesive mounting
- Vibration measurement on small structure



Dynamic Characteristics	
Charge sensitivity	
Typical	1.4pC/g
Minimum	1.0pC/g
Frequency response ( $\pm 5\%$ )	0.5 ~ 8,000Hz
Resonant frequency	32kHz
Transverse Sensitivity ( $\pm 10\%$ )	1 ~ 8,000Hz
Transverse Sensitivity	$\leq 5\%$
Non-linearity (0 ~ 2000g)	1%
Electrical Characteristics	
Resistance	$\geq 10G\Omega$
Capacitance	470pF
Grounding	Signal return is isolated from case
Environmental characteristics	
Working temperature	-73°C ~ +177°C
Humidity	Sealed by silicon compound
Vibration limit	1000 g pK
Shock limit	10000 g pK
Base strain Sensitivity	0.04 g pK/ $\mu$ Strain
Physical characteristics	
Weight	0.9±0.1grams
Case material	Aluminum, hard anodized
Mounting	Adhesive
Accessory	300mm E3011 low-noise cable



- Through the assessment of environmental test: Vibration, Shock, Acceleration, Electromagnetic compatibility, Temperature, Altitude, Temperature impact, Mould, Salt mist, Humidity and hot etc.