

Tri-axial IEPE accelerometer



Features

- Tri-axial measurement
- Miniature cube
- Adhesive or stud mounting
- Hermetic seal
- Annular shear mode
- Wide temperature range
- Wide frequency response

Application

- Vibration monitoring
- Shock testing
- Road testing
- Modal analysis
- Aircraft testing

Dynamic

PARAMETERS	VALUE	UNITS
Sensitivity, $\pm 10\%$, 25°C	100	mV/g
Acceleration range	50	g peak
Amplitude nonlinearity	1	%
Frequency response (+/- 1dB):	1-7,000	Hz
Frequency response (+/- 3dB):	0.4-10,000	Hz
Resonance frequency	38	kHz
Transverse sensitivity, max	5	% Of axial
Temperature response: -50°C	-10	%
Temperature response: +120°C	+10	%

Electrical

PARAMETERS	VALUE	UNITS
Power requirement:	voltage source	18 - 30
	current regulating diode	2 - 10
Electrical noise, Broadband Spectral(g):1Hz to 10kHz	400	μg
Output impedance, max	100	Ω
Bias output voltage(typical)	10	VDC
Grounding	Case grounded	/

Environmental

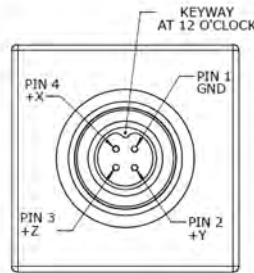
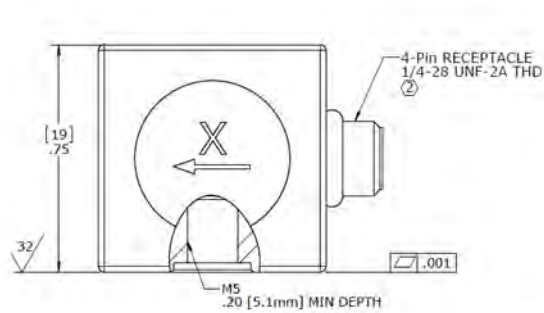
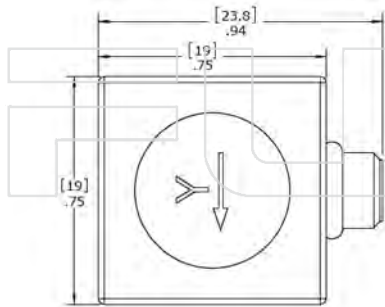
PARAMETERS	VALUE	UNITS
Temperature range.	-50 to 120	°C
Vibration limit	500	g peak
Shock limit	5,000	g peak
Electromagnetic sensitivity equiv g,max	70	$\mu\text{g/gauss}$
Sealing	Hermetic	/
Base strain sensitivity, max	0.0002	g/ μstrain

Physical

PARAMETERS	VALUE	UNITS
Sensing element design	PZT ceramic/shear	/
Weight	28	grams
Case material	Titanium	/
Output connector	4 pin	/

Accessories

PARAMETERS	VALUE	UNITS
Mounting stud: M5 to M5(-B), M5 to 10-32(-A), or custom(-C)	/	/
Mating cable: 13-L with 4 pin connector to BNCx3 output	/	/
Calibration certificate	/	/
Note: Frequency response limits spectral and noise values are typical		



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Temperature response: -50°C	-10	%
Temperature response: +120°C	+10	%

Electrical

PARAMETERS	VALUE	UNITS
Power requirement:	voltage source	18 - 30
	current regulating diode	2 - 10
Electrical noise, Broadband Spectral(g):1Hz to 10kHz	1.2	mg
Output impedance, max	100	Ω
Bias output voltage(typical)	10	VDC
Grounding	Case grounded	/

Environmental

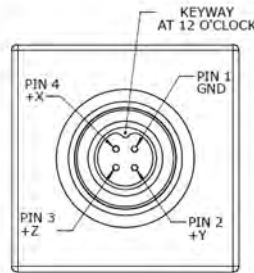
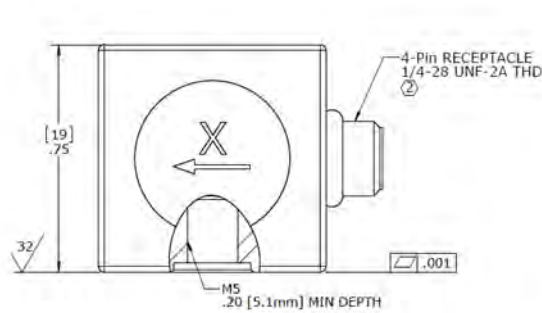
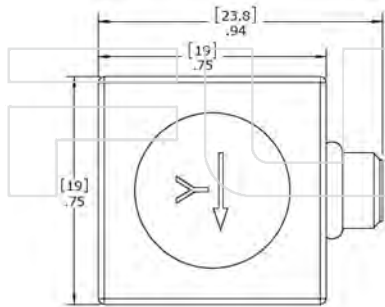
PARAMETERS	VALUE	UNITS
Temperature range.	-50 to 125	°C
Vibration limit	1,000	g peak
Shock limit	5,000	g peak
Electromagnetic sensitivity equiv g,max	70	$\mu\text{g/gauss}$
Sealing	Hermetic	/
Base strain sensitivity, max	0.0002	$\text{g}/\mu\text{strain}$

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