

WIRE COLOR	FUNCTION
BLACK	X (1) AXIS SIGNAL / POWER
RED	Y (2) AXIS SIGNAL / POWER
WHITE	Z (3) AXIS SIGNAL / POWER
YELLOW	SIGNAL GROUND

Mass, without cable: 2.5 grams

Sensitivity: 10mV/g

Housing Material: Titanium Alloy

EXCEPT AS OTHERWISE NOTED	
ALL DIMENSIONS IN INCHES	TOLERANCE: XXX = ± .005 XX = ± .01
SURFACE FINISH	63/ ✓
EXCEPT AS NOTED	
BREAK EDGES TO DEBURR	.005 / .015
RADIUS OR CHAMFER	
FILLETS:	.005 MAX R

DYTRAN MASTER		INSTRUMENTS, INC. ONLY IF IN RED		CHATSWORTH, CA	
SCALE	2:1	REV	-	DATE	-
DATE	2/8/2005	PART NO.			
DRAWN		CHECKED		MATERIAL	
APPROVED	AML 2.9.05	NEXT ASSEMBLY		USED ON	
TITLE				DWG NO.	
OUTLINE / INSTALLATION DRAWING				127-3243A	
SHEET 1 OF 1					

Model Number 3243A	PERFORMANCE SPECIFICATION	DOC NO PS3243A
IEPE QUARTZ SHEAR ACCELEROMETER		REV B, ECN 14341, 07/13/18



- EXCELLENT LINEARITY
- ELECTRICALLY ISOLATED
- HERMETICALLY SEALED
- IMMERSION PROOF BOOT
- ULTRA LOW WEIGHT

PHYSICAL

Weight, Less Cable, Max
Integral Cable [1]

Length

Mounting Provision

Material, Accelerometer
Sensing Material

ENGLISH		SI	
0.09	oz	2.5	grams
Cutoff		Cutoff	
78	Inches	2	meters
Adhesive Mount		Adhesive Mount	
Titanium		Titanium	
Quartz		Quartz	

PERFORMANCE

Sensitivity, -10 / +15% [2]

Range F.S for ± 5 Volts Output

Frequency Range, -5 / +15%

Resonant Frequency

Equivalent Electrical Noise Floor (25Hz to 25kHz) [6]

Linearity [3]

Transverse Sensitivity, Max

Strain Sensitivity @ 250µσ

10	mV/g	1	mV/m/s ²
±500	g	±4905	m/s ²
2 to 7000	Hz	2 to 7000	Hz
> 40	kHz	> 40	kHz
0.007	Grms	0.069	m/s ² rms
1	% F.S.	1	% F.S.
5	%	5	%
0.039	G's/µσ	0.38	m/s ² /µε

ENVIRONMENTAL

Maximum Vibration

Maximum Shock

Temperature Range

Seal, Hermetic

±600	Gpeak	±5886	m/s ² peak
±5000	Gpeak	±49050	m/s ² peak
-60 to +250	°F	-51 to +121	°C
Welded/GTM Header		Welded/GTM Header	

ELECTRICAL

Supply Current Range [4]

Compliance Voltage Range

Output Impedance, Typ

Bias Voltage

Discharge Time Constant

Electrical Isolation, Case Ground To Mounting Surface

2 to 20	mA	2 to 20	mA
+ 18 to +30	Volts	+ 18 to +30	Volts
100	Ω	100	Ω
+7 to +9	VDC	+7 to +9	VDC
0.3 to 1.5	Sec	0.3 to 1.5	Sec
10	GΩ,min	10	GΩ,min

This family also includes:

Model	Sensitivity (mV/g)	Frequency Response (Hz)	Time Constant (Sec)	Operating Temp (°F)

Refer to the performance specifications of the products in this family for detailed description

Supplied Accessories:

1) Accredited calibration certificate (ISO 17025)

Notes:

[1] Side Mounted

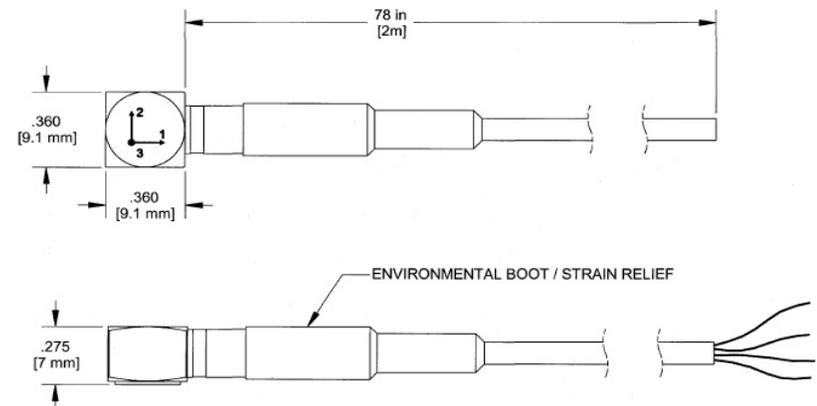
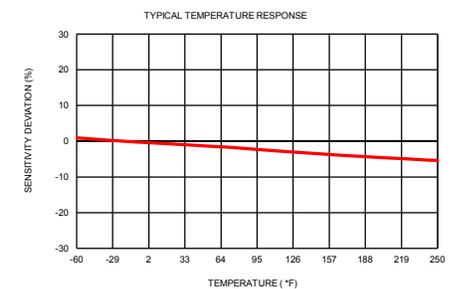
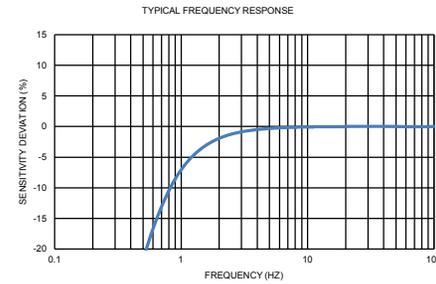
[2] Measured at 100Hz, 1 Grms per ISA RP 37.2

[3] Measured using zero-based straight line method, % of F.S. or any lesser range.

[4] Do not apply power to this system without current limiting, 20 mA MAX. To do so will destroy the IC charge amplifier.

[5] In the interest of constant product improvement, we reserve the right to change specifications without notice.

[6] Typical. Not to exceed 0.010 Grms [0.10 m/s²].



Units on the line drawing are in inches. Refer to 127-3243A for more information.



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