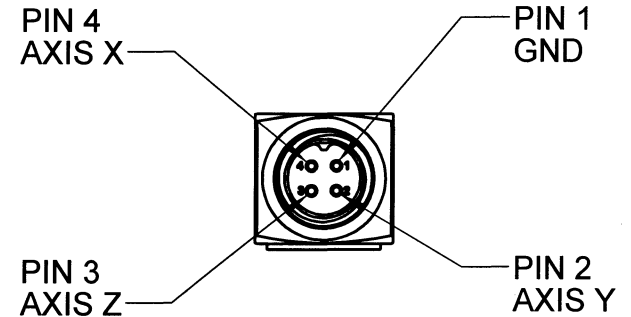
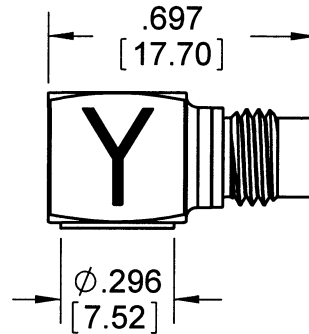
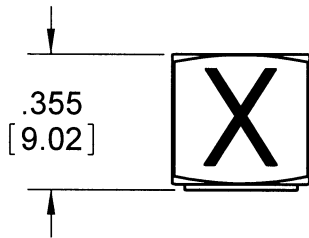
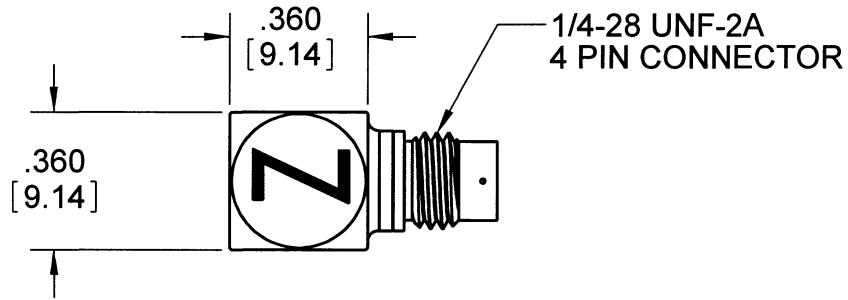


**PROPRIETARY AND CONFIDENTIAL**

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**REVISIONS**

REV	ECN	DESCRIPTION	BY/DATE	CHK	APPR
B	5806	SEE ECN	JS 03/02/09	PA	DV



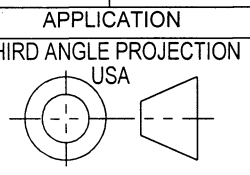
5. DIMENSIONS IN BRACKETS ARE IN MM
4. SENSITIVITY: 1mV/g
3. HOUSING/CONNECTOR MATERIAL: TITANIUM
2. ARROWS INDICATE DIRECTIONS OF ACCELERATION FOR POSITIVE OUTPUT
1. WEIGHT 3.0 GRAMS

NOTES: UNLESS OTHERWISE SPECIFIED

**MOUNTING RECOMMENDATIONS**  
 PREPARE A SURFACE AT LEAST .300 BY .300. SURFACE FLATNESS MUST BE EQUAL OR BETTER THAN .0001 TIR. USE ONE DROP OF CYANOACRYLATE TO MOUNT THE ACCELEROMETER.


UNLESS OTHERWISE SPECIFIED:  
 INTERPRET DIM & TOL PER ASME Y14.5M - 1994.  
 REMOVE BURRS.  
 COUNTERSINK INTERNAL THDS 90° TO MAJOR DIA.  
 CHAM EXT THDS 45° TO MINOR DIA.  
 THD LENGTHS AND DEPTHS ARE FOR MIN FULL THDS.  
 THDS PER MIL-S-7742.  
 DIMENSIONS APPLY AFTER FINISHING.

UNLESS OTHERWISE SPECIFIED:  
 DIMENSIONS ARE IN INCHES.  
 TOLERANCES ARE:  
 DECIMALS      ANGLES  
 .XX ± .010      ± 1°  
 .XXX ± .005



ALL MACHINED SURFACES. TOTAL RUNOUT WITHIN .005.  
 BREAK SHARP EDGES .005 TO .010.  
 MACHINED FILLET RADII .005 TO .015.  
 WELDING SYMBOLS PER AWS A2.4.  
 ABBREVIATIONS PER MIL-STD-12

MATERIAL		
FINISH		
<b>DO NOT SCALE DRAWING</b>		

CONTRACT NO.		
APPROVALS		DATE
ORIG	PML	06/12/05
CHK	ANS	09/29/08
APP	DV	3/5/9
APP		

**DYTRAN INSTRUMENTS, INC.** Chatsworth, CA

**MASTER ONLY IF IN RED**

TITLE:  
**OUTLINE/INSTALLATION DRAWING, MODEL 3023A5**

SIZE <b>A</b>	CAGE CODE <b>2W033</b>	DWG. NO. <b>127-3023A5</b>	REV <b>B</b>
SCALE: 1:1		SOLIDWORKS	SHEET 1 OF 1



- MINATURE SIZE
- EXCELLENT LINEARITY
- ULTRA LOW WEIGHT

**PHYSICAL**

Weight, Max.  
Connector  
Mounting Provision  
Material, Housing/Connector  
Sensing Element  
Element Style

ENGLISH		SI	
Weight, Max.	0.11 oz	3.0 grams	
Connector	1/4-28 UNF-2A	1/4-28 UNF-2A	
Mounting Provision	Adhesive Mount	Adhesive Mount	
Material, Housing/Connector	Titanium Alloy	Titanium Alloy	
Sensing Element	Quartz	Quartz	
Element Style	Shear	Shear	

**PERFORMANCE**

Sensitivity, ±5%  
Range for ± 5 Volts Output  
Frequency Response ±5%  
-5 / +15%  
Resonant Frequency  
Broad Band Resolution [5]  
Spectral Noise  
1.25Hz  
10Hz  
100Hz  
1000Hz  
10000Hz  
Linearity [2]  
Maximum Transverse sensitivity  
Strain Sensitivity @ 250µε

Sensitivity, ±5%	1 mV/g	0.1 mV/m/s <sup>2</sup>	
Range for ± 5 Volts Output	±5000 g	±49033 m/s <sup>2</sup>	
Frequency Response ±5% -5 / +15%	1.5 to 5000 Hz	1.5 to 5000 Hz	
	1.5 to 10000 Hz	1.5 to 10000 Hz	
Resonant Frequency	> 40 kHz	> 40 kHz	
Broad Band Resolution [5]	0.007 Grms	0.07 m/s <sup>2</sup> rms	
Spectral Noise	1.25Hz	0.03 Grms/√(Hz)	m/s <sup>2</sup> rms/√(Hz)
	10Hz	0.01 Grms/√(Hz)	m/s <sup>2</sup> rms/√(Hz)
	100Hz	0.002 Grms/√(Hz)	m/s <sup>2</sup> rms/√(Hz)
	1000Hz	0.0005 Grms/√(Hz)	m/s <sup>2</sup> rms/√(Hz)
	10000Hz	0.0004 Grms/√(Hz)	m/s <sup>2</sup> rms/√(Hz)
Linearity [2]	1 % F.S.	1 % F.S.	
Maximum Transverse sensitivity	5 %	5 %	
Strain Sensitivity @ 250µε	0.039 g/µε	0.38 m/s <sup>2</sup> /µε	

**ENVIRONMENTAL**

Maximum Vibration  
Maximum Shock  
Temperature Range  
Seal  
Magnetic Sensitivity at 100 Gauss

Maximum Vibration	±6000 Gpeak	±58860 m/s <sup>2</sup> peak	
Maximum Shock	±10000 Gpeak	±98100 m/s <sup>2</sup> peak	
Temperature Range	-60 to +250 °F	-51 to +121 °C	
Seal	Hermetic	Hermetic	
Magnetic Sensitivity at 100 Gauss	0.00005 g/Gauss	4.905 m/s <sup>2</sup> /T	

**ELECTRICAL**

Supply Current Range [3]  
Compliance Voltage Range  
Output Impedance, Typ  
Bias Voltage  
Discharge Time Constant  
Electrical Isolation

Supply Current Range [3]	2 to 20 mA	2 to 20 mA	
Compliance Voltage Range	18 to 30 Volts	18 to 30 Volts	
Output Impedance, Typ	100 Ω	100 Ω	
Bias Voltage	7 to 11 VDC	7 to 11 VDC	
Discharge Time Constant	0.3 to 1.5 Sec	0.3 to 1.5 Sec	
Electrical Isolation	Case Grounded	Case Grounded	

**This family also includes:**

Model	Sensitivity (mV/g)	Frequency Response (Hz)	Mounting	Operating Temp (°F)
3023A	10 (-10 to +15%)	1.5 to 10000 (-5 to +15%)	Adhesive	-60 to +250
3023A1	10 (-10 to +15%)	1.5 to 10000 (-5 to +15%)	5-40 Tapped Hole	-60 to +250
3023A2	10 (-10 to +15%)	1.5 to 10000 (-5 to +15%)	10-32 Tapped Hole	-60 to +250
3023A3	5 (-10 to +15%)	1.5 to 10000 (-5 to +15%)	Adhesive	-60 to +250
3023A4	5 (-10 to +15%)	1.5 to 10000 (-5 to +15%)	5-40 Tapped Hole	-60 to +250
3023A6	5 (-10 to +15%)	1.5 to 10000 (-5 to +15%)	10-32 Tapped Hole	-60 to +250
3023A9	1 (±10%)	1.5 to 10000 (-5 to +15%)	10-32 Tapped Hole	-60 to +250

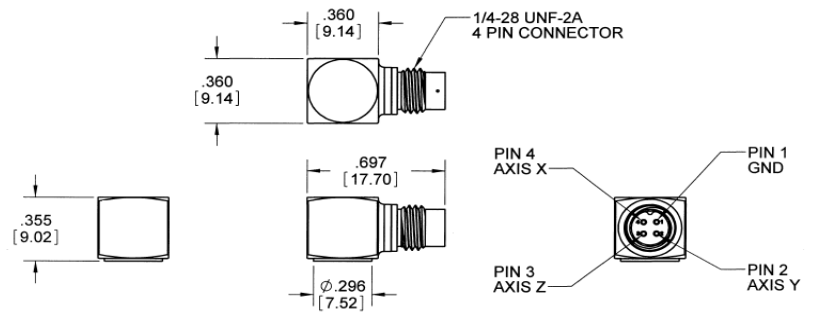
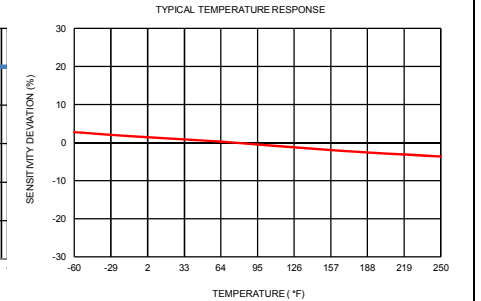
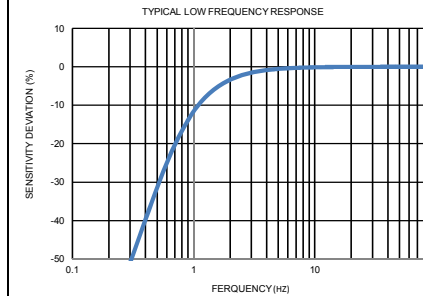
Refer to the performance specifications of the products in this family for detailed description

**Supplied Accessories:**

- Accredited calibration certificate (ISO 17025)

**Notes:**

- Measured at 100Hz, 1 Grms per ISA RP 37.2.
- Measure using zero-based straight line method, % of F.S. or any lesser range.
- Do not apply power to this system without current limiting, 20 mA MAX. To do so will destroy the IC charge amplifier.
- In the interest of constant product improvement, we reserve the right to change specifications without notice.
- Typical. Not to exceed .010 Grms [1.0 m/s<sup>2</sup>].



Units on the line drawing are in inches, units in brackets are in millimeters. Refer to 127-3023A5 for more information.

