PROPRIETARY AND CONFIDENTIAL

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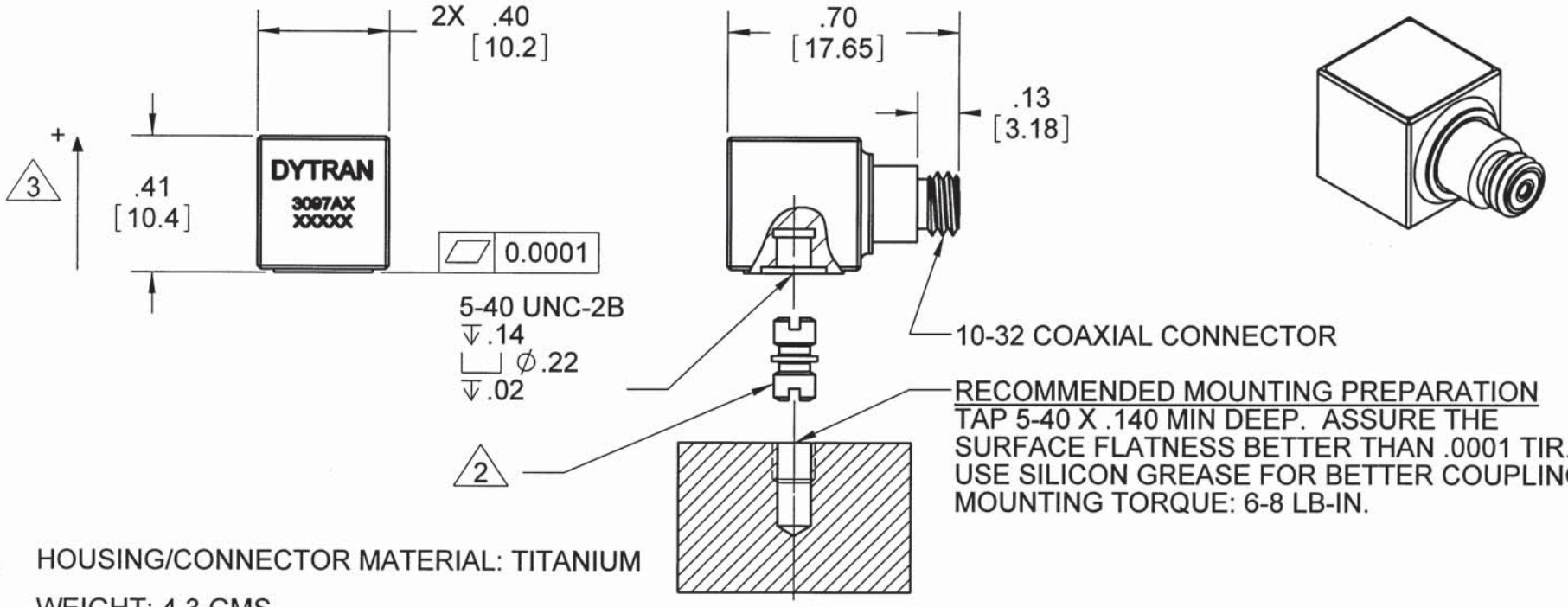
REVISIONS

REV	ECN	DESCRIPTION	BY/DATE	CHK	APPR
C	5902	IS: 6580 WAS: 6728	RA, 04/03/09	DC	AxS



RECOMMENDED MOUNTING PREPARATION
TAP 5-40 X .140 MIN DEEP. ASSURE THE SURFACE FLATNESS BETTER THAN .0001 TIR. USE SILICON GREASE FOR BETTER COUPLING. MOUNTING TORQUE: 6-8 LB-IN.

5. HOUSING/CONNECTOR MATERIAL: TITANIUM
4. WEIGHT: 4.3 GMS
3. ARROW DESIGNATES UNIT'S POLARITY
2. MOUNTING STUD 6580 (5-40 TO 5-40) SUPPLIED
1. DELETED

NOTES: UNLESS OTHERWISE SPECIFIED

MODEL	SENSITIVITY
3097A3	500mV/g
3097A2	100mV/g
3097A1	10mV/g

3097A
APPLICATION

THIRD ANGLE PROJECTION
USA

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.
63
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.

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES.
TOLERANCES ARE:

DECIMALS	ANGLES
.XX ± .010	± 1°
.XXX ± .005	

MATERIAL

FINISH

DO NOT SCALE DRAWING

CONTRACT NO.

APPROVALS		DATE
ORIG	DV	09/11/08
CHK	DV	09/11/08
APP	DV	09/11/08
APP		

DYTRAN INSTRUMENTS, INC. Chatsworth, CA

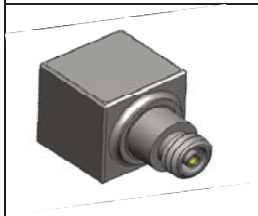
MASTER
ONLY IF IN RED

TITLE:
OUTLINE/ INSTALLATION DRAWING, 3097A SERIES

SIZE	CAGE CODE	DWG. NO.	REV
A	2W033	127-3097A	C

SCALE: 2:1 | SOLIDWORKS | SHEET 1 OF 1

Model Number 3097A3	PERFORMANCE SPECIFICATIONS	DOC NO PS3097A3
	IEPE ACCELEROMETER	REV C, ECN 7213, 11/06/10



- **MINIATURE SIZE**
- **HERMETICALLY SEALED**
- **EXCELLENT LINEARITY**

		ENGLISH		SI	
PHYSICAL					
Weight		0.15	oz	4.3	grams
Connector [1]	Type	10-32		10-32	
Mounting Provision	Tapped Hole	5-40 UNC-2B		5-40 UNC-2B	
Material, Housing/Connector		TITANIUM		TITANIUM	
Sensing Element		CERAMIC		CERAMIC	
Element Style		PLANAR SHEAR		PLANAR SHEAR	
PERFORMANCE					
Sensitivity, ±5% [2]		500	mV/G	51	mV/m/s^2
Range for ± 5 Volts Output		10	G peak	98	m/s^2
Frequency Response, ±5%		0.3 to 5000	Hz	0.3 to 5000	Hz
±15%		0.15 to 10,000	Hz	0.15 to 10,000	Hz
Resonant Frequency		> 35	kHz	> 35	kHz
Broad Band Resolution		0.0003	G rms	0.003	m/s^2 rms
Spectral Noise	1Hz	0.00005	Grms/√(Hz)	0.000	m/s^2 rms/√(Hz)
	10Hz	0.00001	Grms/√(Hz)	0.0001	m/s^2 rms/√(Hz)
	100Hz	0.00000	Grms/√(Hz)	0.00004	m/s^2 rms/√(Hz)
	1000Hz	0.000002	Grms/√(Hz)	0.00002	m/s^2 rms/√(Hz)
	10000HZ	0.000002	Grms/√(Hz)	0.00002	m/s^2 rms/√(Hz)
Linearity [2]		±1	% F.S.	±1	% F.S.
Maximum Transverse sensitivity		5	%	5	%
Strain Sensitivity @ 250με		0.002	G/με	0.02	m/s^2/με
Phase Response ±5°		5 to 3000	Hz	5 to 3000	Hz
ENVIRONMENTAL					
Maximum Vibration		200	G peak	1962	m/s^2 peak
Maximum Shock		5000	G peak	49050	m/s^2 peak
Temperature Range		-60 to 150	°F	-51 to 65	°C
Seal		HERMETIC		HERMETIC	
ELECTRICAL					
Supply Current Range [3]		2 to 20	mA	2 to 20	mA
Compliance Voltage Range		+18 to +30	Volts	+18 to +30	Volts
Output Impedence,Typ		100	Ω	100	Ω
Bias Voltage		+11 to +13	VDC	+11 to +13	VDC
Discharge Time Constant		1.5 to 2.5	Sec	1.5 to 2.5	Sec

This family also includes:

Model	Sensitivity (mV/g)	Frequency Response ±5%, (Hz)	Time Constant (Sec)	Operating Temp (°F)
3097A1	10	0.3 to 5000	1.5 to 2.5	-60 to 200
3097A2	100	0.3 to 5000	1.5 to 2.5	-60 to 180

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

Supplied Accessories:

1) Accredited calibration certificate (ISO 17025)

2) Model 6580 mounting stud (5-40 to 5-40), qty 1

Notes:

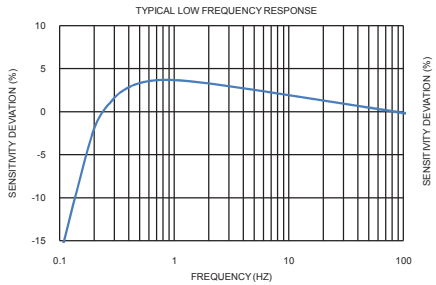
[1] Coaxial, 10-32 connector. Mates with Dytran cable Model 6010AXX or 6011AXX

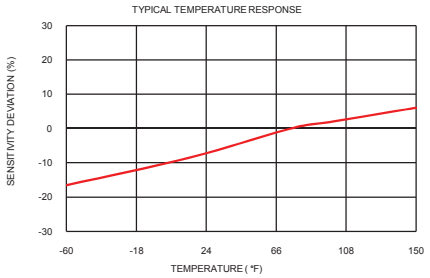
[2] Measured at 100Hz, 1 Grms per ISA RP 37.2.

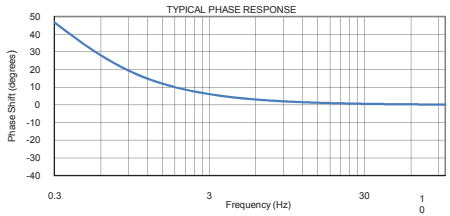
[3] Measure using zero-based straight line method, % of F.S. or any lesser range.

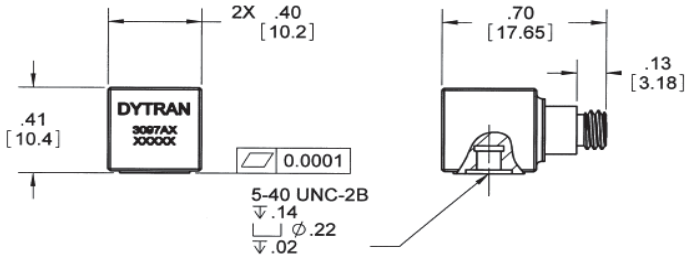
[5] Do not apply power to this system without current limiting, 20 mA MAX. To do so will destroy the IC charge amplifier.

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









Units on the line drawing are in inches, units in brackets are in millimeters. Refer to 127-3097A for more information.

Presented by: Absolute Gauge Technologies
sales@absolutegauge.com; www.absolutegauge.com,
Toronto: 416 754 3168, Montreal: 514 695 5147, Toll Free: 1 888 754 7008