

PROPRIETARY AND CONFIDENTIAL

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REVISIONS					
REV.	ECN	DESCRIPTION	BY/DATE	CHK	APPR
A	5617	SEE ECN	RLA 11/20/08	JS	ANS
B	5645	SEE ECN	RLA 12/05/08	JS	DV
C	14124	CONVERTED TO SOLIDWORKS; UPDATED FORMAT; ADDED DUAL DIMENSIONS	DP 03/28/18	<i>[Signature]</i>	<i>[Signature]</i>

D

D

C

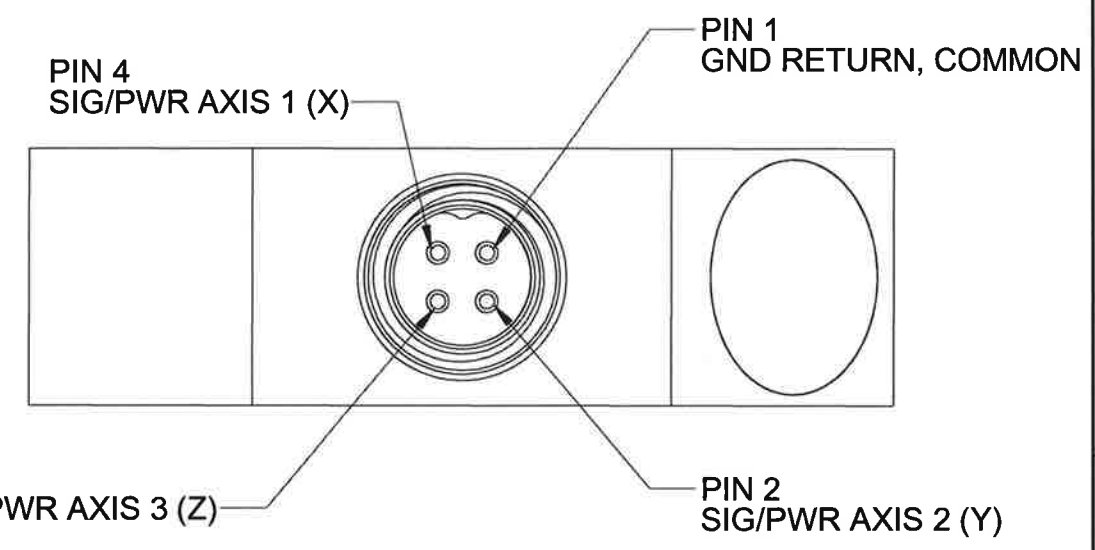
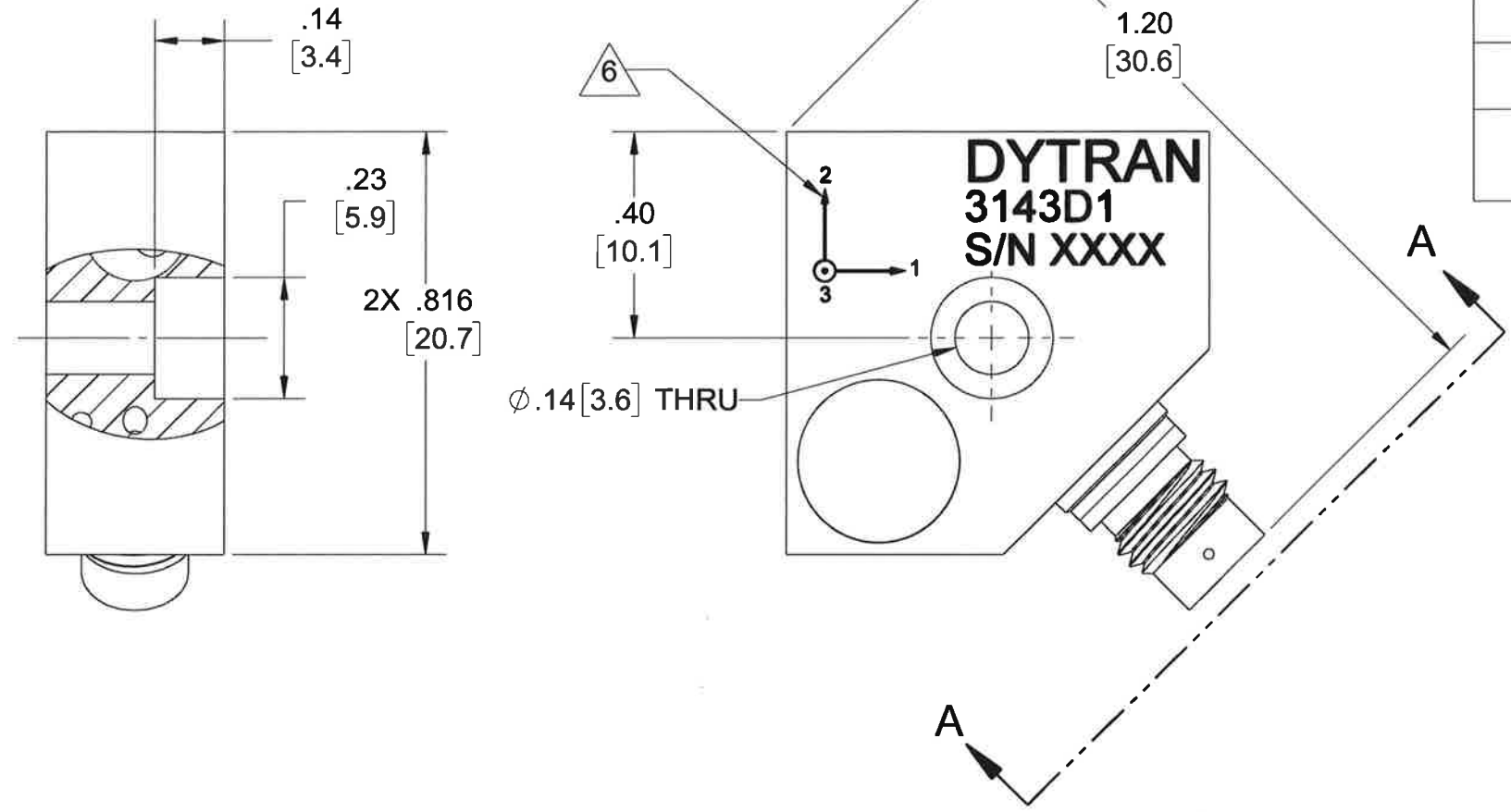
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B

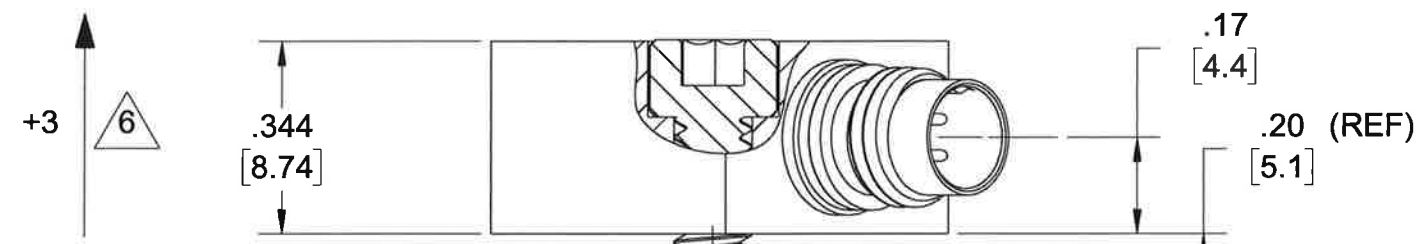
B

A

A



SECTION A-A SCALE 4:1



MODEL 6247A2 6-32 MOUNTING SCREW, (SUPPLIED) RECOMMENDED MOUNTING TORQUE: 10-15 LB-INCHES

- 6. ARROWS INDICATE SENSE AND DIRECTION OF ACCELERATION FOR POSITIVE-GOING OUTPUT SIGNALS.
 - 5. RECOMMENDED CABLES: MODEL 6041CXX FOR CONNECTION TO DYTRAN POWER UNIT 4103C. MODEL 6811AXX FOR CONNECTION TO MODEL 4114B FOUR-CHANNEL POWER UNIT.
 - 4. WEIGHT: 14 GRAMS.
 - 3. SIGNAL GROUND IS INSULATED FROM CASE GROUND.
 - 2. ENVIRONMENTAL SEAL: HERMETIC.
 - 1. HOUSING/CONNECTOR MATERIAL: TITANIUM.
- NOTES: UNLESS OTHERWISE SPECIFIED

MOUNTING PORT PREPARATION: .270 DEEP TAP 6-32 UNC-2B X .22 DEEP, MIN.

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.
 DIMENSIONS APPLY AFTER FINISHING.

ALL MACHINED SURFACES: ⁶³✓
 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.

DECIMALS	METRIC	ANGLES
.XX ±.03	.X ± 0.8	±1°
.XXX ±.010	.XX ±0.25	

APPROVALS		DATE
ORIG	NC	11/20/08
CHK	RLA	11/20/08
APP	ANS	11/20/08

DO NOT SCALE DRAWING



TITLE: **OUTLINE/INSTALLATION DRAWING, MODEL 3143D1, 100 mV/G**

SIZE	CAGE CODE	DWG NO	REV
B	2W033	127-3143D1	C

SCALE: 3:1 SHEET 1 OF 1

Model Number
3143D1

PERFORMANCE SPECIFICATIONS

DOC NO
PS3143D1

IEPE TRIAXIAL ACCELEROMETER

REV A, ECN 11933 , 06/10/15



- HERMETICALLY SEALED
- EXCELLENT LINEARITY

This family also includes:

Model	Sensitivity (mV/g)	Frequency Response (Hz)	Time Constant (Sec)	Operating Temp (°F)
3143D	10 mV/g	0.5 to 3000	0.8 to 2.0	-60 to 185
3143D2	50 mV/g	0.5 to 3000	0.8 to 2.0	-60 to 185

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

Supplied Accessories:

- 1) Accredited calibration certificate (ISO 17025)
- 2) Mounting screw Model 6247A2

Notes:

- [1] Radially mounted 4-pin connector. Mates with Dytran cable Model 6811A.
- [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 amplifier.
- [5] In the interest of constant product improvement, we reserve the right to change specifications without notice.

PHYSICAL

Weight, Max.
Connector [1]
Mounting Provision
Material, Housing/Connector
Sensing Element
Element Style

Type
Thru Hole

ENGLISH		SI	
0.49	oz	14	grams
4-Pin		4-Pin	
6-32 Mounting Screw		6-32 Mounting Screw	
Titanium		Titanium	
Ceramic		Ceramic	
Planar Shear		Planar Shear	

PERFORMANCE

Sensitivity, ±5% [2]
Range for ± 5 Volts Output
Frequency Response, ±5%
Resonant Frequency
Broad Band Resolution
Linearity [3]
Maximum Transverse sensitivity
Strain Sensitivity @ 250µε

100	mV/g	10	mV/m/s ²
±50	g peak	±490.5	m/s ⁴
0.5 to 3000	Hz	0.5 to 3000	Hz
> 25	kHz	> 25	kHz
0.0007	g rms	0.007	m/s ² rms
± 1	% F.S.	± 1	% F.S.
5	%	5	%
0.012	g/µε	0.12	m/s ² /µε

ENVIRONMENTAL

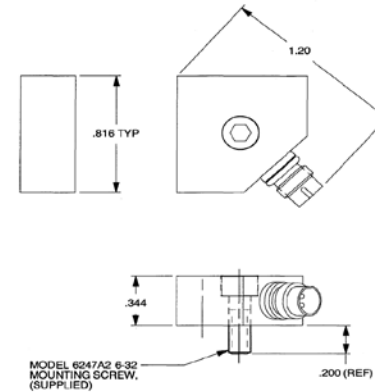
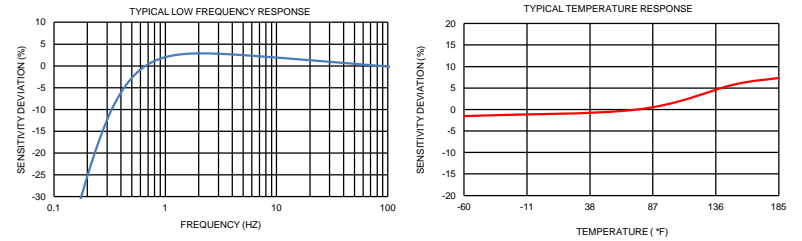
Maximum Vibration
Maximum Shock
Operating Temperature Range
Survival Temperature Range
Seal

±600	g peak	±5886	m/s ⁴ peak
±1500	g peak	±14715	m/s ² peak
-60 to 185	°F	-51 to 85	°C
-100 to 225	°F	-73 to 107	°C
Hermetic		Hermetic	

ELECTRICAL

Supply Current Range [4]
Compliance Voltage Range
Output Impedance, Typ
Bias Voltage
Discharge Time Constant
Electrical Isolation

2 to 20	mA	2 to 20	mA
+18 to +30	Volts	+18 to +30	Volts
100	Ω	100	Ω
+11 to +12.5	VDC	+11 to +12.5	VDC
0.8 to 2.0	Sec	0.8 to 2.0	Sec
10	GΩ,min	10	GΩ,min



Units on the line drawing are in inches, units in brackets are in millimeters. Refer to 127-3143D1 for more information.



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