

4

3

DWG NO 127-3093D SH 1 REV B

2

1

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF DYTRAN INSTRUMENTS INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF DYTRAN INSTRUMENTS INC. IS PROHIBITED

REVISIONS

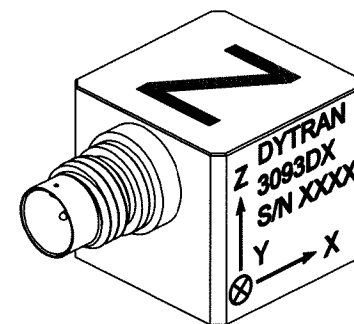
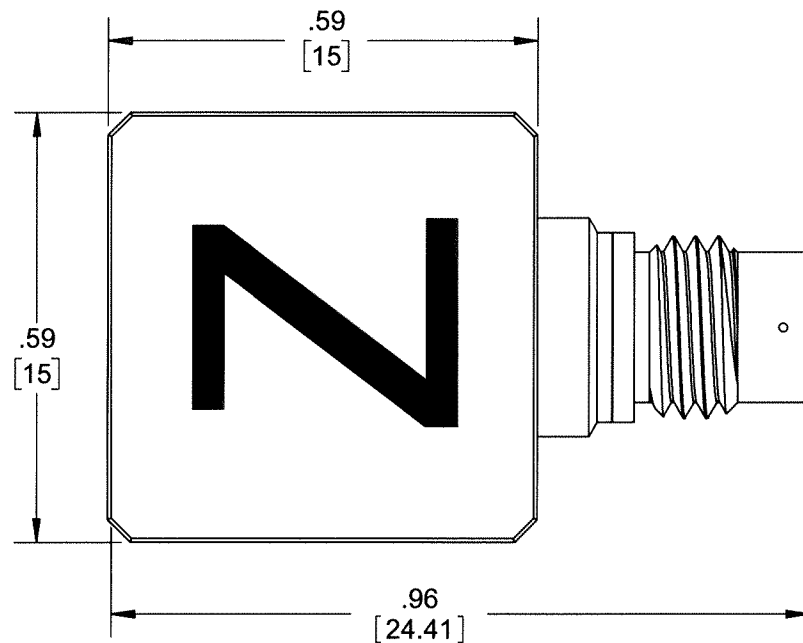
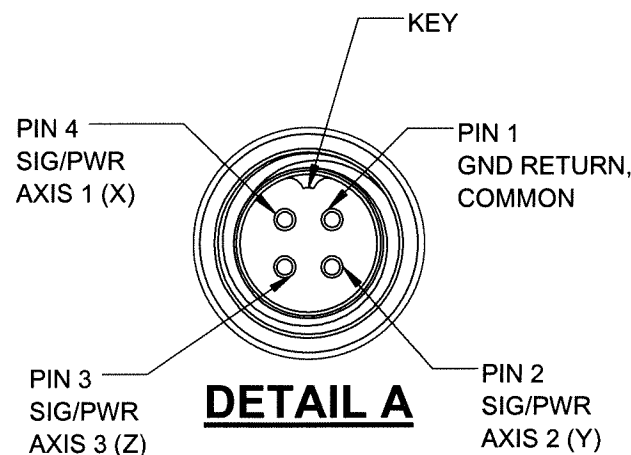
REV.	ECN	DESCRIPTION	BY/DATE	CHK	APPR
A	11879	INITIAL RELEASE	JS 11/02/16	LA	LN
B	15119	REVISED NOTE 2 (WEIGHT)	KG 06/06/19	<i>[Signature]</i>	<i>[Signature]</i>

VARIATION TABLE

MODEL NO.	SENSITIVITY
3093D1	1 mV/g
3093D2	5 mV/g
3093D3	10 mV/g
3093D4	20 mV/g
3093D5	25 mV/g
3093D6	50 mV/g
3093D7	100 mV/g

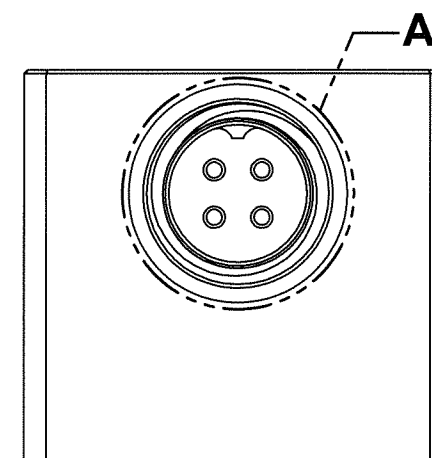
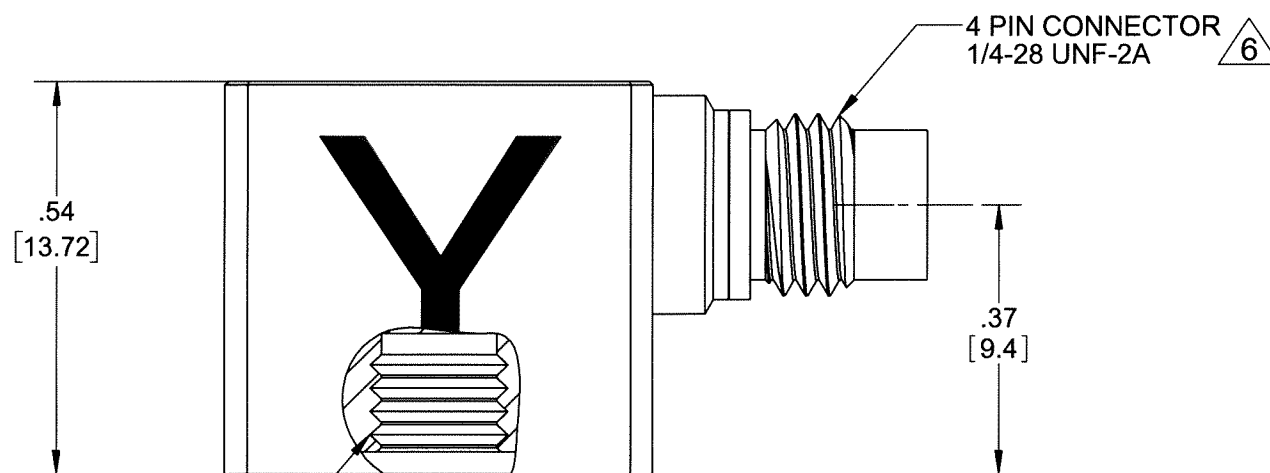
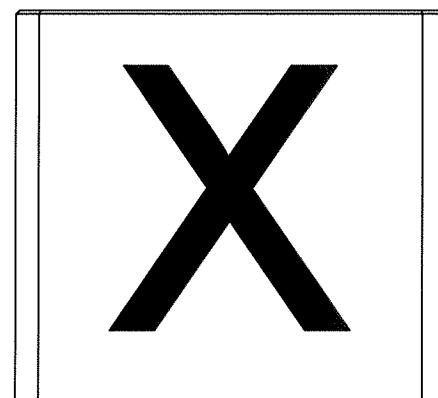
D

D



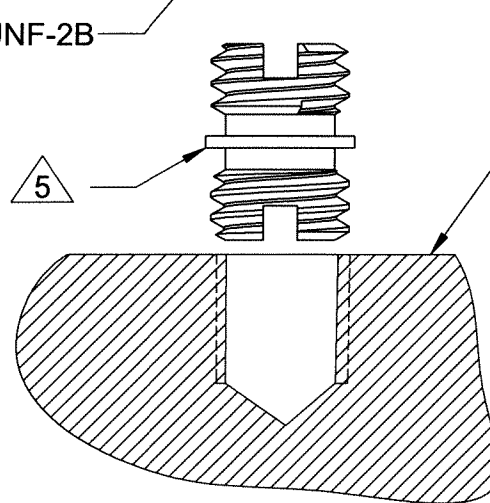
C

C



B

B



MOUNTING RECOMMENDATIONS:
 PREPARE MOUNTING SURFACE FLAT TO .001TIR.
 DRILL AND TAP 10-32 UNF-2B .188 [4.76] MINIMUM.
 RECOMMENDED MOUNTING TORQUE: 10-12 LB IN.
 FOR BEST FREQUENCY RESPONSE MOUNTING SURFACE
 MUST CONTACT ENTIRE ACCELEROMETER MOUNTING
 SURFACE.

- 6 MATES WITH DYTRAN CABLE 6811AXX (XX=LENGTH IN FEET)
- 5 MOUNTING STUD 10-32 UNF-2A (MODEL 6200 SUPPLIED)
- 4. ARROWS INDICATE ACCELERATION DIRECTION FOR POSITIVE OUTPUT.
- 3. HOUSING AND CONNECTOR MATERIAL: TITANIUM
- 2. WEIGHT: 14 GRAMS, MAX.
- 1. ENVIRONMENTAL SEAL: HERMETIC

NOTES: UNLESS OTHERWISE SPECIFIED

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:
 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	.XX ±.025	.X ±0.25	±1°

APPROVALS		DATE
ORIG	JS	11/02/16
CHK	LA	11/17/16
APP	LN	11/17/16

DO NOT SCALE DRAWING

DYTRAN INSTRUMENTS, INC. Chatsworth, CA

MASTER ONLY IF IN RED

TITLE: **OUTLINE/ INSTALLATION DRAWING 3093D1-7**

SIZE B	CAGE CODE 2W033	DWG NO 127-3093D	REV B
---------------	------------------------	-------------------------	--------------

SCALE: 4:1 SHEET 1 OF 1

A



A

4

3

2

1

Model Number	PERFORMANCE SPECIFICATION				DOC NO																																										
3093D6	Accelerometer, Triaxial, IEPE				PS3093D6																																										
					REV F, ECN 15119, 06/07/19																																										
 <ul style="list-style-type: none"> • CASE ISOLATED • HERMETICALLY SEALED • STUD MOUNTED 																																															
		ENGLISH	SI																																												
PHYSICAL																																															
Weight, Max.		0.49	oz	14.0	grams																																										
Mounting Stud Mount		10-32 UNF-2A	screw	10-32 UNF-2A	screw																																										
Connector [1]	Type	4-pin, 1/4-28		4-pin, 1/4-28																																											
Housing	Material	Titanium		Titanium																																											
	Material	Titanium		Titanium																																											
Sensing Element	Isolation	Case Isolated		Case Isolated																																											
	Material Mode	Ceramic Shear		Ceramic Shear																																											
PERFORMANCE																																															
Sensitivity, +/-5% [2]		50	mV/g	5.1	mV/m/s ²																																										
Acceleration Range, ±		100	Gpeak	981	m/s ² peak																																										
Frequency Range, ±5%		.6-5000	Hz	.6-5000	Hz																																										
Resonance Frequency		> 30	kHz	> 30	kHz																																										
Linearity [3]		1	%F.S.	1	%F.S.																																										
Transverse Sensitivity Max.		6	%	6	%																																										
Noise floor		0.0014	Grms	0.01	m/s ² rms																																										
Spectral Noise	1Hz	400	µGrms/sqr(Hz)	3924	µm/s ² rms/sqr(Hz)																																										
	10Hz	280	µGrms/sqr(Hz)	2746.8	µm/s ² rms/sqr(Hz)																																										
	100Hz	180	µGrms/sqr(Hz)	1765.8	µm/s ² rms/sqr(Hz)																																										
	1000Hz	100	µGrms/sqr(Hz)	981	µm/s ² rms/sqr(Hz)																																										
	10000Hz	40	µGrms/sqr(Hz)	392.4	µm/s ² rms/sqr(Hz)																																										
ELECTRICAL																																															
Supply Current Range [4]		2 to 20	mA	2 to 20	mA																																										
Compliance Voltage Range		+18 to +30	VDC	+18 to +30	VDC																																										
Output Impedance, Typ.		100	Ω	100	Ω																																										
Output Bias Voltage		+11 to +13	VDC	+11 to +13	VDC																																										
Discharge Time Constant		0.7 to 1.7	sec	0.7 to 1.7	sec																																										
Electrical Isolation, Min.		10	GΩ	10	GΩ																																										
ENVIRONMENTAL																																															
Shock Max., ±		200	g pk	1962	m/s ²																																										
Vibration Max., ±		120	g pk	1177	m/s ²																																										
Operating Temperature		-60 to +225	°F	-51 to +107	°C																																										
Seal		Hermetic		Hermetic																																											
Magnetic Sensitivity at 100 Gauss		0.00007	g/Gauss	0.0007	m/s ² /Gauss																																										
Base Strain Sensitivity		0.05	g/µε	0.4905	m/s ² /µε																																										
<p>This family also includes:</p> <table border="1"> <thead> <tr> <th>Model</th> <th>Sensitivity (mV/g)</th> <th>Range (Gpeak)</th> <th>Resolution (Grms)</th> <th>Oper. Temp (°F)</th> <th>TC</th> </tr> </thead> <tbody> <tr> <td>3093D1</td> <td>1</td> <td>5000</td> <td>0.07</td> <td>-60 to +250</td> <td>0.7 to 1.7</td> </tr> <tr> <td>3093D2</td> <td>5</td> <td>1000</td> <td>0.014</td> <td>-60 to +250</td> <td>0.7 to 1.7</td> </tr> <tr> <td>3093D3</td> <td>10</td> <td>500</td> <td>0.007</td> <td>-60 to +250</td> <td>0.7 to 1.7</td> </tr> <tr> <td>3093D4</td> <td>20</td> <td>250</td> <td>0.0035</td> <td>-60 to +250</td> <td>0.7 to 1.7</td> </tr> <tr> <td>3093D5</td> <td>25</td> <td>200</td> <td>0.0028</td> <td>-60 to +235</td> <td>0.7 to 1.7</td> </tr> <tr> <td>3093D7</td> <td>100</td> <td>50</td> <td>0.0007</td> <td>-60 to +225</td> <td>0.7 to 1.7</td> </tr> </tbody> </table> <p>Refer to performance specifications of products in this family for detailed description</p> <p>Supplied Accessories:</p> <ol style="list-style-type: none"> 1) Model 6200 Mounting Stud Supplied, Qty: 1 2) Accredited Calibration Certificate (ISO 17025) <p>Notes:</p> <ol style="list-style-type: none"> [1] Glass to Metal seal connector. Mates with Dytran cable Model 6811AXX (XX=length in feet) [2] Measured at 100 Hz, 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 device without current limiting, 20mA Max. To do so will destroy the integral IC amplifier. [5] In the interest of constant product improvement, we reserve the right to change specifications without notice. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary overtime. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. 						Model	Sensitivity (mV/g)	Range (Gpeak)	Resolution (Grms)	Oper. Temp (°F)	TC	3093D1	1	5000	0.07	-60 to +250	0.7 to 1.7	3093D2	5	1000	0.014	-60 to +250	0.7 to 1.7	3093D3	10	500	0.007	-60 to +250	0.7 to 1.7	3093D4	20	250	0.0035	-60 to +250	0.7 to 1.7	3093D5	25	200	0.0028	-60 to +235	0.7 to 1.7	3093D7	100	50	0.0007	-60 to +225	0.7 to 1.7
Model	Sensitivity (mV/g)	Range (Gpeak)	Resolution (Grms)	Oper. Temp (°F)	TC																																										
3093D1	1	5000	0.07	-60 to +250	0.7 to 1.7																																										
3093D2	5	1000	0.014	-60 to +250	0.7 to 1.7																																										
3093D3	10	500	0.007	-60 to +250	0.7 to 1.7																																										
3093D4	20	250	0.0035	-60 to +250	0.7 to 1.7																																										
3093D5	25	200	0.0028	-60 to +235	0.7 to 1.7																																										
3093D7	100	50	0.0007	-60 to +225	0.7 to 1.7																																										
<div style="display: flex; justify-content: space-around;"> <div data-bbox="1050 812 1428 1055"> <p>TYPICAL LOW FREQUENCY RESPONSE</p> </div> <div data-bbox="1470 812 1890 1055"> <p>TYPICAL SENSITIVITY RESPONSE OVER TEMPERATURE</p> </div> </div> <div style="text-align: center; margin-top: 20px;"> <p>Units on the line drawing are in inches, units in brackets are in millimeters. Refer to 127-3093D for more information.</p> </div>																																															
 <p>21592 Marilla Street, Chatsworth, California 91311 Phone: 818.700.7818 Fax:818.700.7880 www.dytran.com For permission to reprint this content, please contact info@dytran.com</p>																																															