PROPRIETARY AND CONFIDENTIAL

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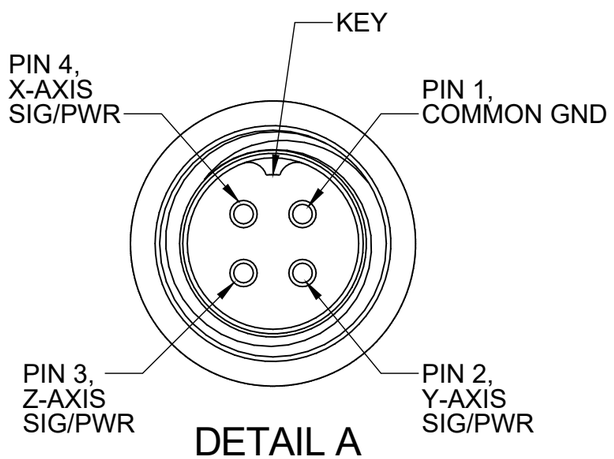
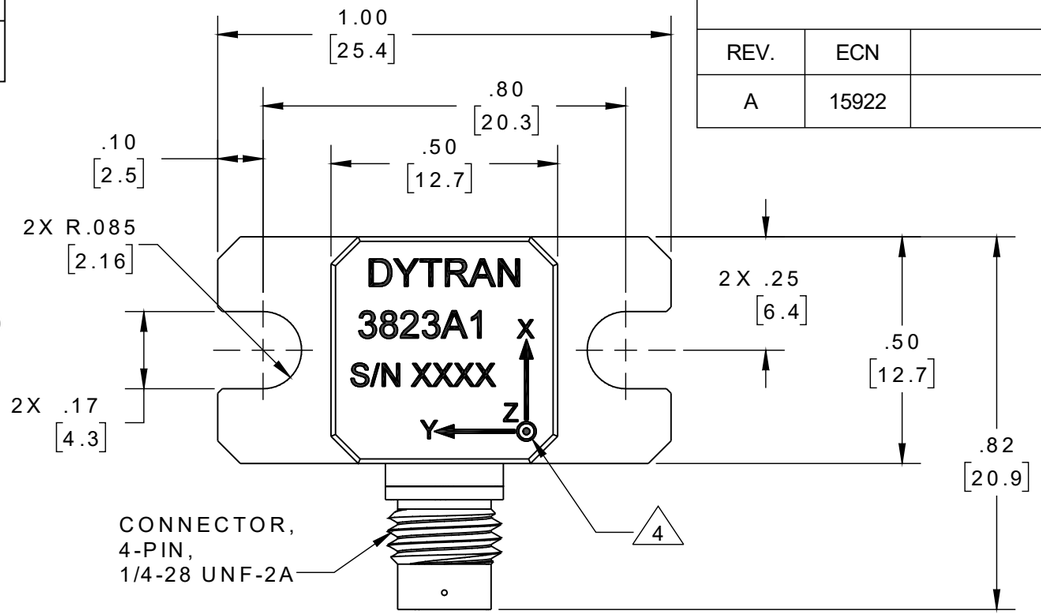
DWG NO 127-3823A1 SH 1 REV A

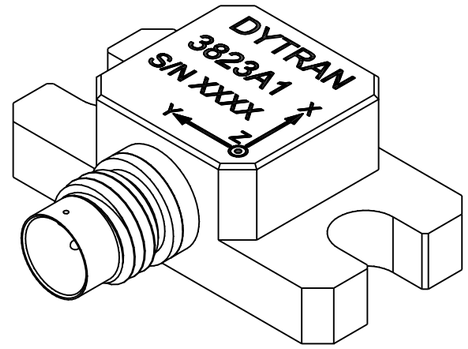
REVISIONS

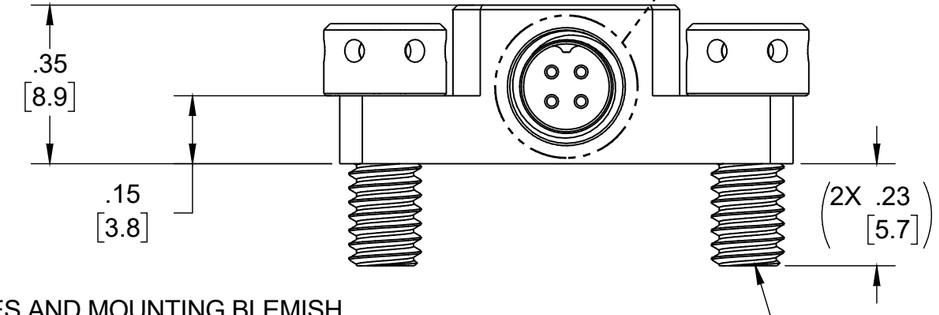
REV.	ECN	DESCRIPTION	BY/DATE	CHK	APPR
A	15922	INITIAL RELEASE	KG 10/16/20	AM	LN- SEE PDM



DETAIL A
SCALE 6 : 1







6. MINOR VOIDS, SCARS, SCRATCHES AND MOUNTING BLEMISH & WITNESS MARKS ON EXTERNAL SURFACES ARE ALLOWED DUE TO RESTRAINING AND HANDLING DURING TESTING, TRANSPORT OR PROCESSING. THESE APPEAR AS INDICATORS THAT DO NOT AFFECT FORM, FIT, OR FUNCTION AS INTENDED BY DESIGN OF APPLICATION.
5. OPERATING TEMPERATURE -60 °F (-51 °C) TO 250 °F (121 °C).
4. ARROWS INDICATE DIRECTION OF ACCELERATION FOR POSITIVE OUTPUT.
3. FOR BEST FREQUENCY RESPONSE, PREPARE A FLAT MOUNTING SURFACE OF AT LEAST 1.00"x0.50" , FLAT TO .001 TIR. DRILL AND TAP 2X 8-32 UNC-2B HOLES. RECOMMENDED MOUNTING TORQUE: 10-12 Lbf-in
2. WEIGHT: 8.5 GRAMS, MAX.
1. MATERIAL: TITANIUM ALLOY.

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.

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.
DIMENSIONS IN BRACKETS [ ] ARE IN MILLIMETERS TOLERANCES ARE:

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

APPROVALS		DATE
ORIG	LN	08/27/20
CHK		
APP		

DO NOT SCALE DRAWING

THIRD ANGLE PROJECTION USA

DYTRAN INSTRUMENTS, INC. Chatsworth, CA

TITLE: OUTLINE/INSTALLATION DRAWING, MODEL 3823A1

SIZE	CAGE CODE	DWG NO	REV
B	2W033	127-3823A1	A

SCALE: 3:1 SHEET 1 OF 1

172-0186 REV A

Model Number	PERFORMANCE SPECIFICATIONS	DOC NO
3823A1		PS3823A1
	TRI AXIAL IEPE ACCELEROMETER	REV A, ECN 15922, 10/16/20

- **INTERNALLY CASE ISOLATED**
- **HERMETICALLY SEALED**
- **DUAL MOUNTING HOLES**

This family also includes:

Model	Sensitivity (mV/g)	Frequency Response (Hz)	Mounting	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)
2) Mounting Screws, model 69034A6, 8-32 x .375", Qty. 2

		ENGLISH		SI	
PHYSICAL					
Weight, Max.		0.30	oz	8.5	grams
Connector		4- Pin		4- Pin	
Mounting Provision		2 x # 8 Screws		2 x # 8 Screws	
Material, Housing/Connector		Titanium Alloy		Titanium Alloy	
Sensing Element		Quartz		Quartz	
Element Style		Shear		Shear	
PERFORMANCE					
Sensitivity, ±10% [1]		10	mV/g	1.02	$mV/m/s^2$
Range for ± 5V Output		±500	g pk	±4903	m/s^2 pk
Frequency Response:	±5%	2.5 to 2000	Hz	2.5 to 2000	Hz
	±10%	1.7 to 3000	Hz	1.7 to 3000	Hz
Resonant Frequency		> 25	kHz	> 25	kHz
Broad Band Resolution [5]		0.007	g RMS	0.069	m/s^2 RMS/√(Hz)
Linearity [2]		±1	% F.S.	±1	% F.S.
Maximum Transverse Sensitivity		6	%	6	%
Strain Sensitivity @ 250με		0.05	g/με	0.49	$m/s^2/με$
ENVIRONMENTAL					
Maximum Shock		5000	g pk	49033	m/s^2 pk
Temperature Range		-60 to +250	°F	-51 to +121	°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 Impedance,Typ		100	Ω	100	Ω
Bias Voltage		7 to 11	VDC	7 to 11	VDC
Discharge Time Constant		0.2 to 1.5	Sec	0.2 to 1.5	Sec
Electrical Isolation		10	GΩ,min	10	GΩ,min

Notes:

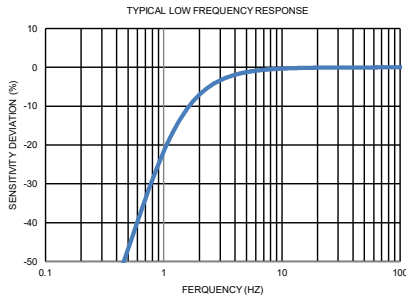
[1] Measured at 100Hz, 1 g RMS per ISA RP 37.2.

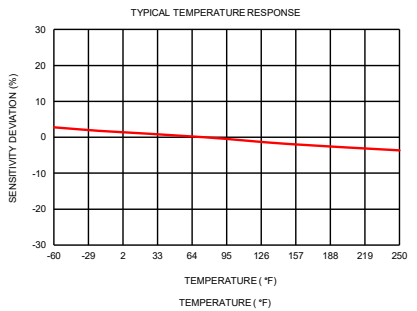
[2] Measure using zero-based straight line method, % of F.S. or any lesser range.

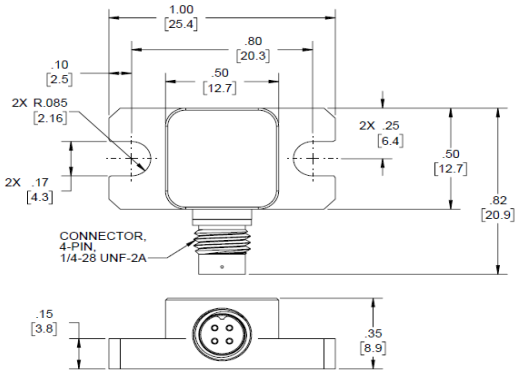
[3] Do not apply power to this system without current limiting, 20 mA MAX. To do so will destroy the IC charge amplifier.

[4] In the interest of constant product improvement, we reserve the rights to change the 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.

[5] Typical. Not to exceed .010 g RMS [.10 m/s2].







AUnits on the line drawing are in inches, units in brackets are in millimeters. Refer to 127-3823A1 for more information.

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