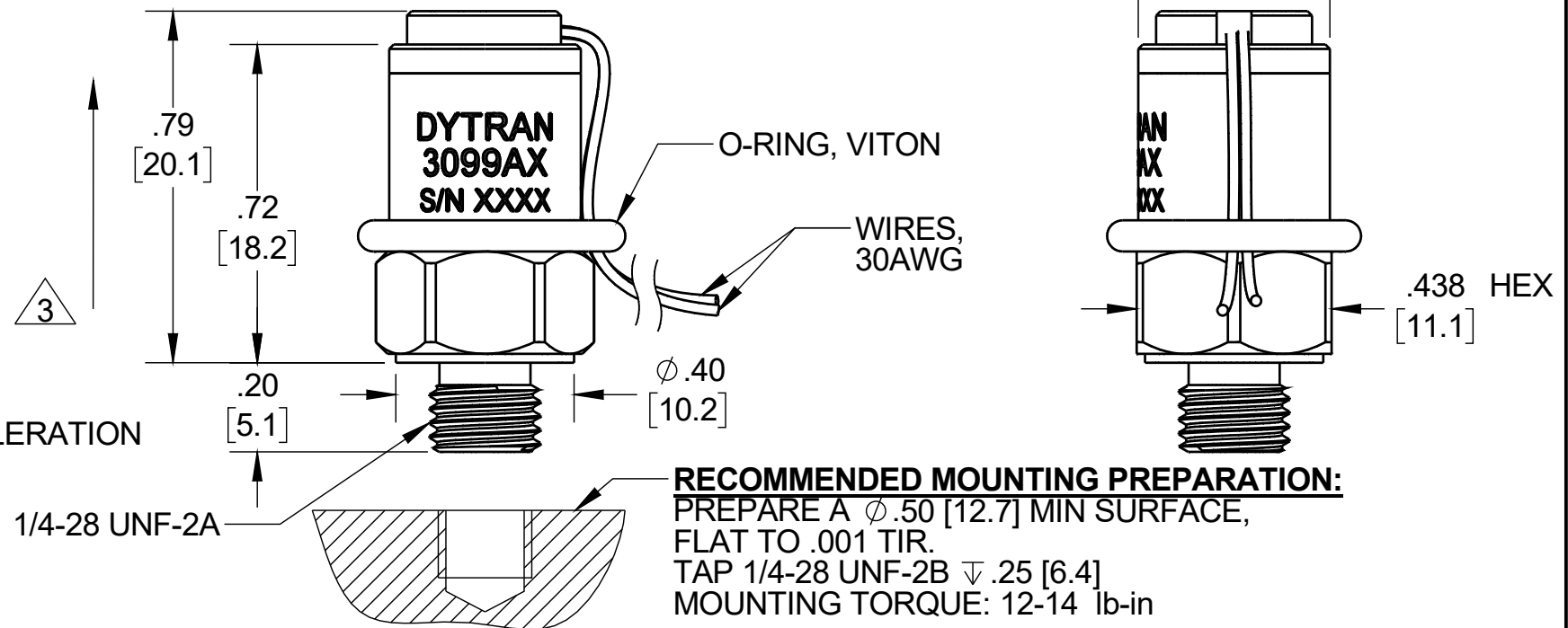
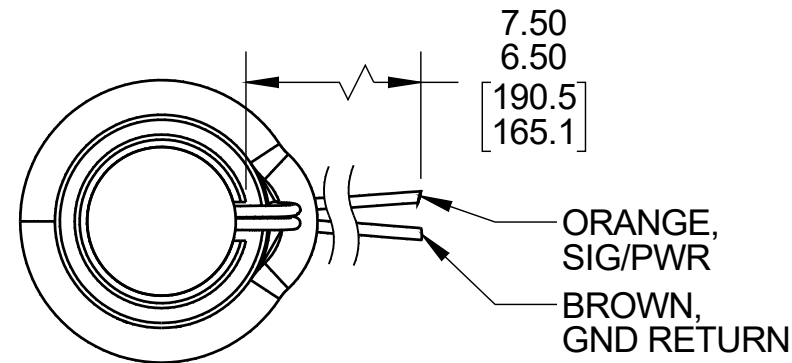
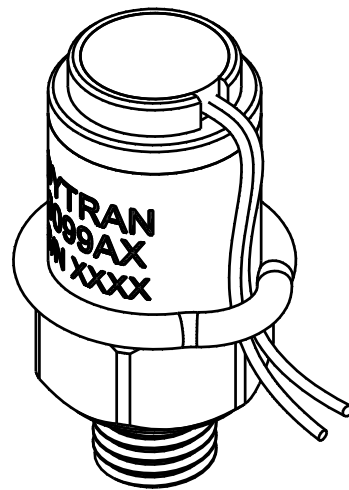


PROPRIETARY AND CONFIDENTIAL

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MODEL	SENSITIVITY	RANGE
3099A1	0.05 mV/g	±60,000 g
3099A2	0.1 mV/g	±50,000 g
3099A3	0.2 mV/g	±25,000 g

REVISIONS					
REV	ECN	DESCRIPTION	BY/DATE	CHK	APPR
A	14148	INITIAL RELEASE, SAME AS REV X2	EM 04/06/18	MH	DV
B	15846	REDESIGNED FOR PERFORMANCE IMPROVEMENT, SAME AS REV A3	KG 07/16/20	AM	RA- SEE PDM



3 ARROW INDICATES DIRECTION OF ACCELERATION FOR POSITIVE OUTPUT

2. HOUSING MATERIAL: TITANIUM

1. WEIGHT: 8 GRAMS, MAX.

NOTES: UNLESS OTHERWISE SPECIFIED

USED ON	NEXT ASSY
APPLICATION	
THIRD ANGLE PROJECTION USA	
<p>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.</p> <p>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.</p>	

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES. DIMENSIONS IN BRACKETS [] ARE IN MILLIMETERS TOLERANCES ARE: INCHES METRIC ANGLES .XX ± .03 .X ± 0.8 ± 1° .XXX ± .010 .XX ± 0.25		
MATERIAL		
FINISH		
DO NOT SCALE DRAWING		

CONTRACT NO.		
APPROVALS		
ORIG	LN	DATE
CHK	MH	04/10/18
APP	DV	04/10/18
APP		

DYTRAN INSTRUMENTS, INC. Chatsworth, CA

TITLE: **OUTLINE/INSTALLATION DWG, HIGH SHOCK SENSOR, MECHANICALLY FILTERED, MODEL 3099AX**

SIZE	CAGE CODE	DWG. NO.	REV
A	2W033	127-3099A1	B

SCALE: NONE SOLIDWORKS SHEET 1 OF 1

Model Number 3099A1	PERFORMANCE SPECIFICATION	DOC NO PS3099A1
	SHOCK ACCELEROMETER, IEPE	REV B, ECN 15846, 07/16/20



- MECHANICALLY & ELECTRICALLY FILTERED
- HERMETICALLY SEALED
- CASE ISOLATED

PHYSICAL

Weight, Max.
Mounting Provision
Material
Element Style

Housing
Material
Type

ENGLISH		SI	
0.28	oz	8	grams
1/4-28 UNF-2A		1/4-28 UNF-2A	
Titanium		Titanium	
Quartz		Quartz	
Planar Shear		Planar Shear	

PERFORMANCE

Sensitivity, ±20%[1]
Measurement Range
Frequency Range, ±3dB
Resonant Frequency
Linearity [2]
Broadband Resolution
Maximum Transverse Sensitivity
Strain Sensitivity

Mechanical Filter
Element

0.05	mV/g	0.005	mV/m/s ²
±60,000	g pk	±588,600	m/s ²
10 to 10,000	Hz	10 to 10,000	Hz
> 10.5	kHz	> 10.5	kHz
> 120	kHz	> 120	kHz
± 1	%	± 1	%
1.0	G rms	9.81	m/s ² rms
5	%	5	%
0.0005	g/με	0.0049	m/s ² /με

ELECTRICAL

Supply Current Range [3]
Compliance Voltage Range
Output Impedance, Typ.
Output Bias Voltage
Discharge Time Constant
Warm up time (within 10% of Bias)
Electrical Filter
Ground Isolation

Cutoff Frequency

2 to 20	mA	2 to 20	mA
+18 to +30	VDC	+18 to +30	VDC
100	Ω	100	Ω
7.0 to 12.0	VDC	7.0 to 12.0	VDC
1.0 to 2.0	sec	1.0 to 2.0	sec
< 8	sec	< 8	sec
Two Pole		Two Pole	
7	kHz	7	kHz
>10	MΩ	>10	MΩ

ENVIRONMENTAL

Maximum Shock
Temperature Range
Coefficient of Thermal Sens.
Seal

±120,000	g pk	±1,177,200	m/s ² , pk
-10 to +250	°F	-12 to +121	°C
0.03	%F	0.05	%C
Hermetic		Hermetic	

This family also includes:

Model	Sensitivity (mV/g)	Measurement Range(g pk)	Maximum Shock (g pk)	Temperature (°F)
3099A2	0.1	±50,000	±100,000	-10 to +250
3099A3	0.2	±25,000	±50,000	-10 to +250

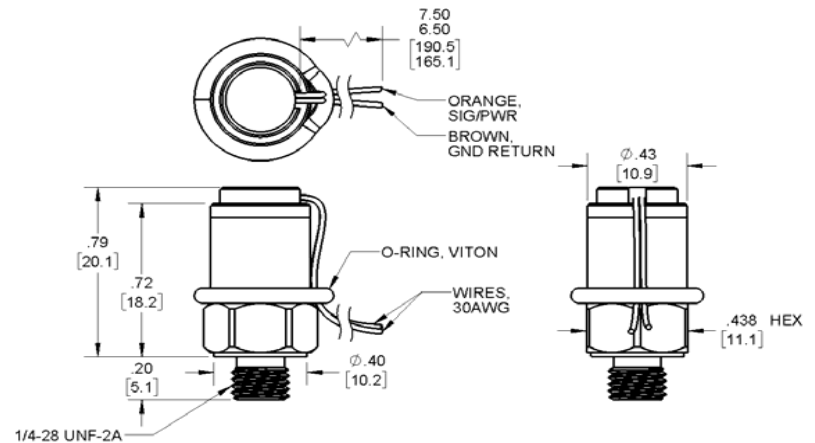
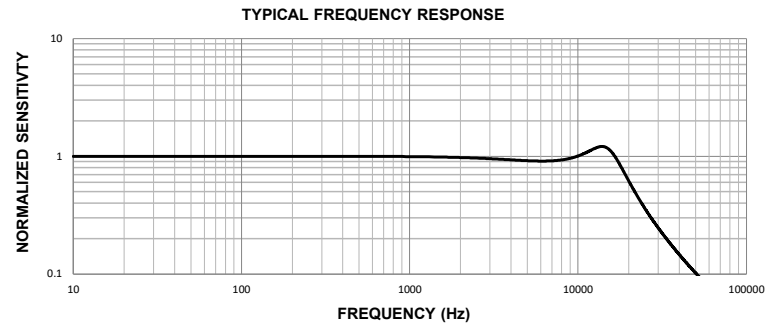
Refer to the performance specifications of the products in this family for detailed description.

Supplied Accessories:

- 1) Accredited calibration certificate (ISO 17025)

Notes:

- [1] Measured at 100Hz, 10 Grms per ISA RP 37.2
- [2] Measured 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 amplifier
- [4] 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.



Units on the line drawing are in inches, units in brackets are in millimeters. Refer to 127-3099A1 for more information.



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