

PROPRIETARY AND CONFIDENTIAL

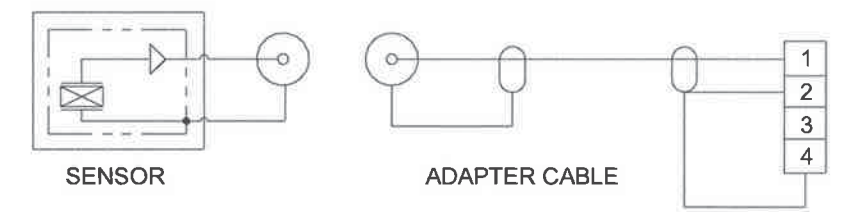
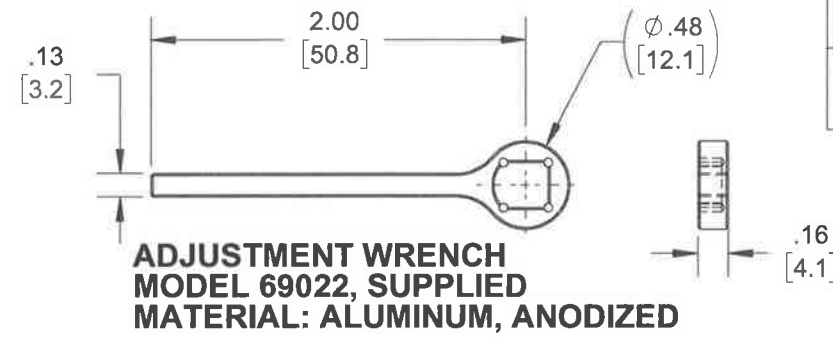
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REVISIONS

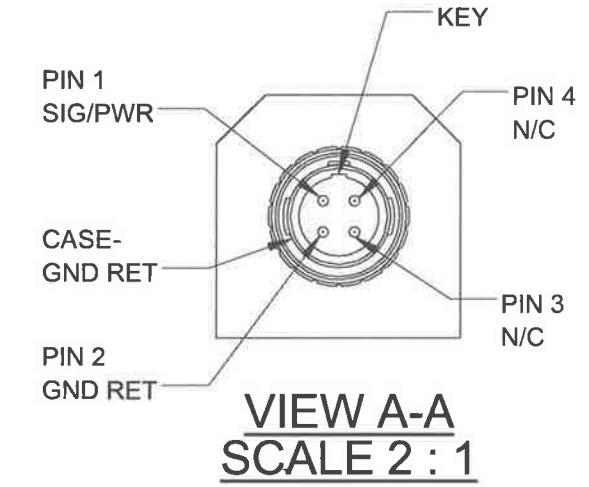
REV.	ECN	DESCRIPTION	BY/DATE	CHK	APPR
X2		ADDED SENSOR DIMENSIONS	LN 01/12/17	<i>[Signature]</i>	

1 CABLE LENGTH TOLERANCE

ENGLISH		METRIC	
≤1FT	+1/-0 IN	≤0.3m	+25mm -0mm
>1 FT - 5 FT	+2/-0 IN	.0.3 m-1.5m	+50mm -0mm
> 5 FT - 10 FT	+4/-0 IN	>1.5m-3m	+100mm -0mm
>10 FT - 25FT	+6 / -0 IN	>3m-7.5m	+150mm -0mm
>25 FT	+5% / -0%	>7.5m	+5%/ -0%



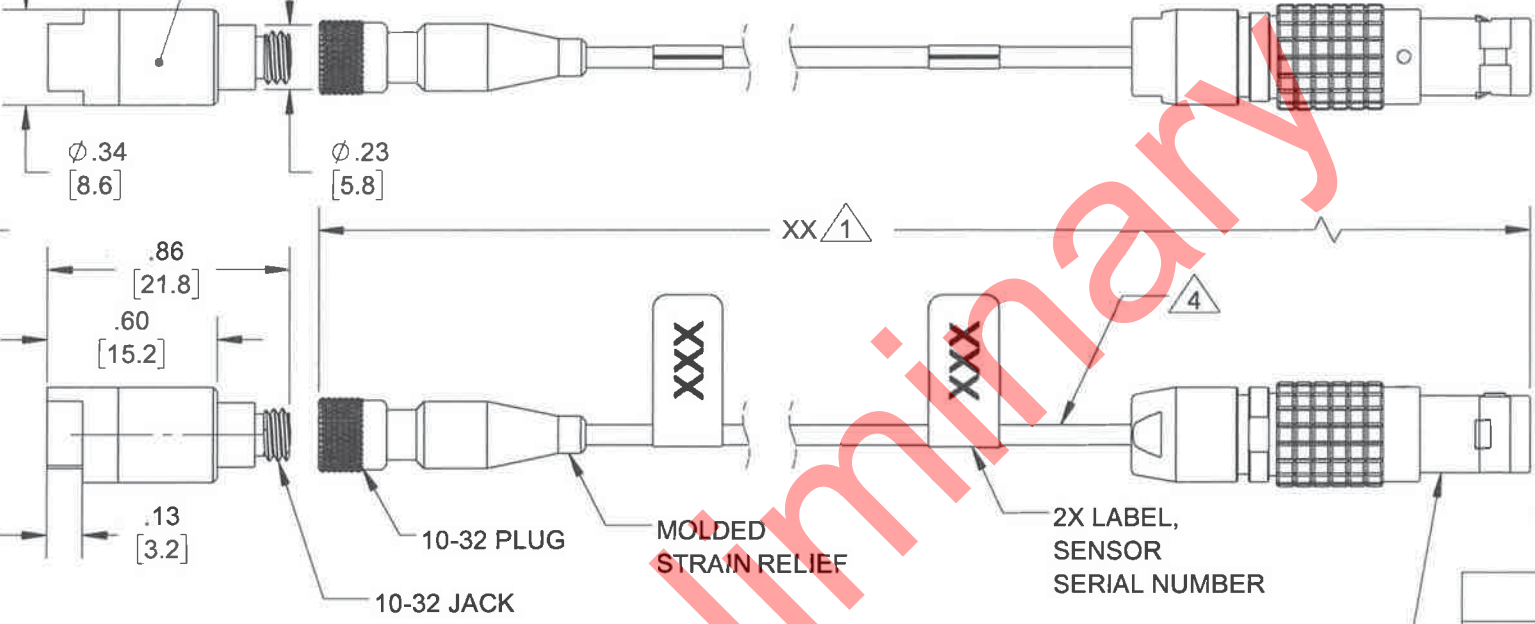
SCHEMATIC DIAGRAM



2X M3x0.5 LOCKING SET SCREWS & THREAD INSERTS

EXTERNAL HOUSING

SENSOR



INSTALLATION INSTRUCTIONS:

1. PREPARE A SURFACE FLAT TO .001 TIR.
2. INSTALL SENSOR TO TEST SURFACE USING DOUBLE-SIDED TAPE.
3. UNTIGHTEN 2X M3x0.5 SET SCREWS TO LOOSEN ACCELEROMETER FROM EXTERNAL HOUSING.
4. ADJUST ACCELEROMETER TO DESIRED ORIENTATION USING SUPPLIED WRENCH
5. TIGHTEN 2X M3x0.5 SET SCREWS TO LOCK ACCELEROMETER IN PLACE.

4 COAXIAL LOW NOISE CABLE

WIRE	30 AWG-7/38 SILVER PLATE
LOW NOISE WRAP #1	CARBON TAPE
WIRE INSULATION	EXTRUDED PTFE, CLEAR, Ø.032" NOM.
LOW NOISE WRAP #2	CARBON TAPE
SHIELD	38 AWG SILVER PLATED COPPER BRAID
JACKET	RED PTFE WRAP .005"-.010" WALL
DIAMETER	Ø.073" NOM. [1.85mm]
TEMP	200 °C WIRE RATED
VOLTAGE	600 VOLTS
CAPACITANCE	28 pF/FT
IMPEDANCE	50 OHMS NOMINAL

5 ARROW INDICATES DIRECTION OF ACCELERATION FOR POSITIVE SIGNAL OUTPUT

4 COAXIAL CABLE, LOW NOISE. SEE TABLE FOR SPECIFICATIONS.

3. WEIGHT: 10 GRAMS, MAX. (SENSOR ONLY, LESS ADAPTER CABLE)

2. MATERIAL:  
GROUND ISOLATED HOUSING: DELRIN  
SENSOR HOUSING/CONNECTOR: TITANIUM ALLOY

1 MODEL NUMBER: 3494A1-XX. "XX" DENOTES CABLE LENGTH IN FEET.

NOTES: UNLESS OTHERWISE SPECIFIED

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Date: \_\_\_\_\_

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 ±1°
.XX ±.03	.X ±0.8	.X ±0.8	.XX ±0.25	
.XXX ±.010	.X ±0.8	.XX ±0.25	.XX ±0.25	

APPROVALS: ORIG LN, CHK LN, APP LN, DATE 12/21/16, 1/12/17

DO NOT SCALE DRAWING

THIRD ANGLE PROJECTION USA

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES. DIMENSIONS IN BRACKETS [ ] ARE IN MILLIMETERS TOLERANCES ARE:

DECIMALS METRIC ANGLES

APPROVALS DATE

ORIG LN 12/21/16

CHK LN 1/12/17

APP LN

DO NOT SCALE DRAWING

THIRD ANGLE PROJECTION USA

DYTRAN INSTRUMENTS, INC. Chatsworth, CA

TITLE: OUTLINE/INSTALLATION DWG, UNIAXIAL ACCEL, 360 DEG ROTATION, MODEL 3494A1

SIZE B CAGE CODE 2W033 DWG NO 127-3494A1-XX REV X2

SCALE: 1:2 SHEET 1 OF 1



- ADJUSTABLE SENSING DIRECTION
- GROUND ISOLATED
- IDEAL LOW FREQUENCY RESPONSE
- TEDS FEATURE
- HERMETICALLY SEALED

**PHYSICAL**  
 Weight, Max.  
 Connector Type  
 Mounting Provision  
 Material Sensor/ Connector  
 External Housing  
 Sensing Element  
 Element Style

ENGLISH		SI	
0.35	oz	10	grams
10-32		10-32	
Adhesive		Adhesive	
Titanium		Titanium	
Delrin		Delrin	
Ceramic		Ceramic	
Planar Shear		Planar Shear	

**PERFORMANCE**  
 Sensitivity, ± 5% [1]  
 Range for ± 5 Volts Output  
 Frequency Response, ± 5%  
 Resonant Frequency  
 Broad Band Resolution  
 Transverse Sensitivity  
 Linearity [2]  
 Full Scale  
 0.5 - 3 Hz  
 3 - 1000 Hz  
 Phase Response  
 0.5 - 3 Hz  
 3 - 1000 Hz

100	mV/g	10	mV/m/s <sup>2</sup>
± 50	g peak	± 491	m/s <sup>2</sup> peak
0.5 to 1000	Hz	0.5 to 1000	Hz
> 15	kHz	> 15	kHz
0.0004	g rms	0.004	m/s <sup>2</sup> rms
<2	%	<2	%
± 1	% F.S.	± 1	% F.S.
<5	%	<5	%
<2	%	<2	%
<15	degrees	<15	degrees
<3	degrees	<3	degrees

**ENVIRONMENTAL**  
 Maximum Vibration  
 Maximum Shock  
 Operating Temperature Range  
 Seal

100	Gpeak	981	m/s <sup>2</sup> peak
1000	Gpeak	9810	m/s <sup>2</sup> peak
-60 to +180	°F	-51 to +82	°C
Hermetic		Hermetic	

**ELECTRICAL**  
 Supply Current Range [3]  
 Compliance Voltage Range  
 Output Impedance, Typ  
 Bias Voltage  
 Discharge Time Constant  
 Electrical Isolation  
 TEDS

2 to 20	mA	2 to 20	mA
18 to 30	VDC	18 to 30	VDC
100	Ω	100	Ω
11 to 13	VDC	11 to 13	VDC
1.2 to 2.5	Sec	1.2 to 2.5	Sec
10	GΩ,min	10	GΩ,min
IEEE 1451.4		IEEE 1451.4	

**Supplied Accessories:**

- 1) Accredited calibration certificate (ISO 17025)
- 2) Model 69022 Adjustment Wrench, Qty. 1 ea.

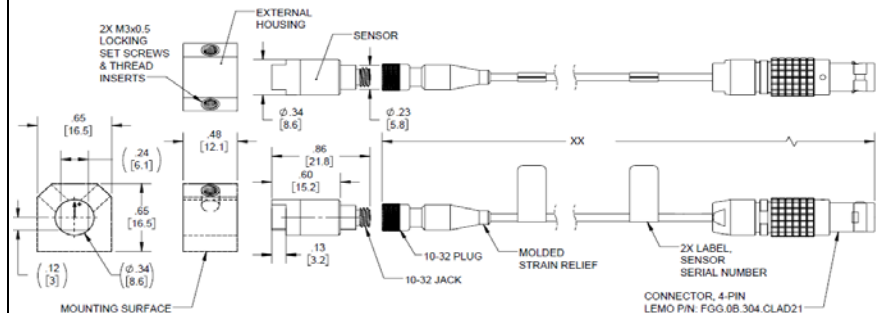
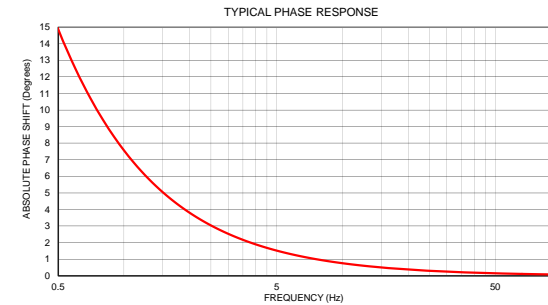
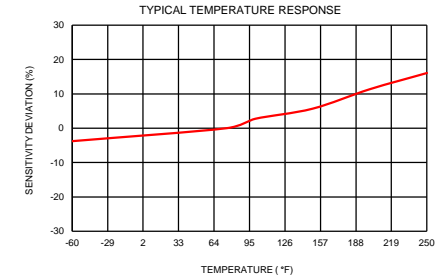
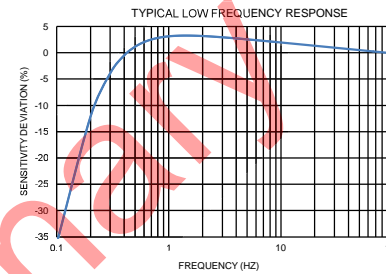
Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Notes:**

- [1] Measured at 100Hz, 1 Grms 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 right to change specifications without notice.



Units on the line drawing are in inches, units in brackets are in millimeters. Refer to 127-3494A1-XX for more information.

