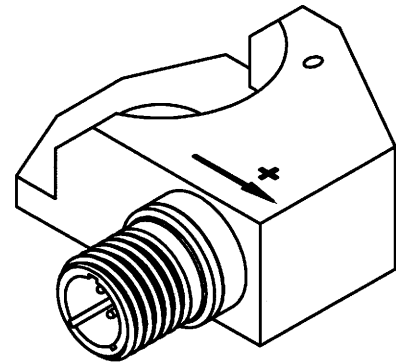


**PROPRIETARY AND CONFIDENTIAL**

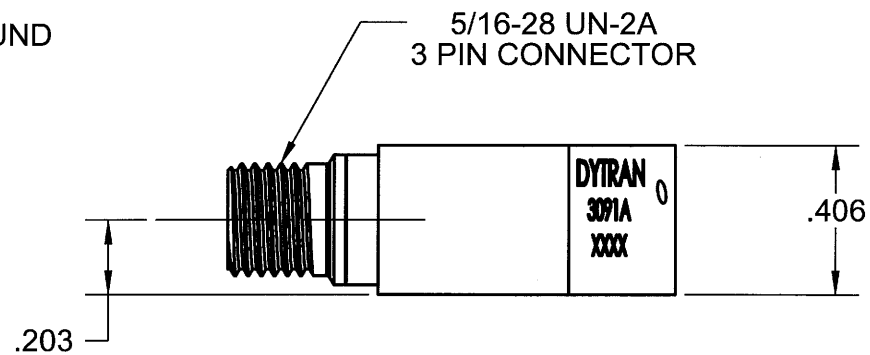
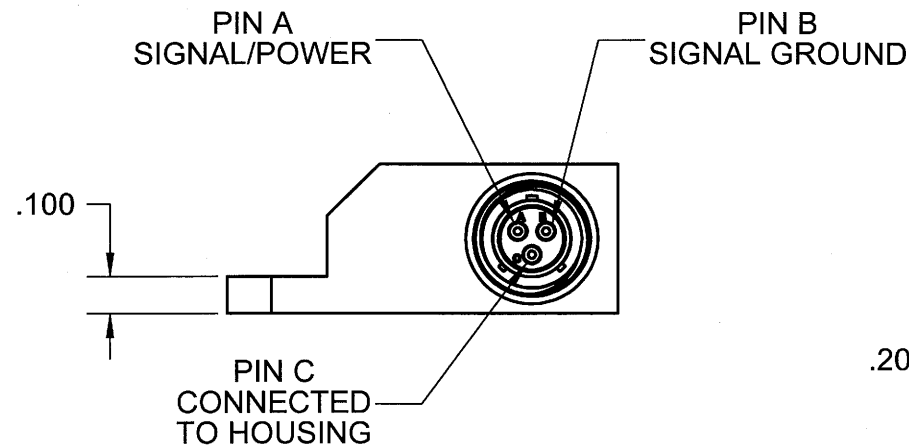
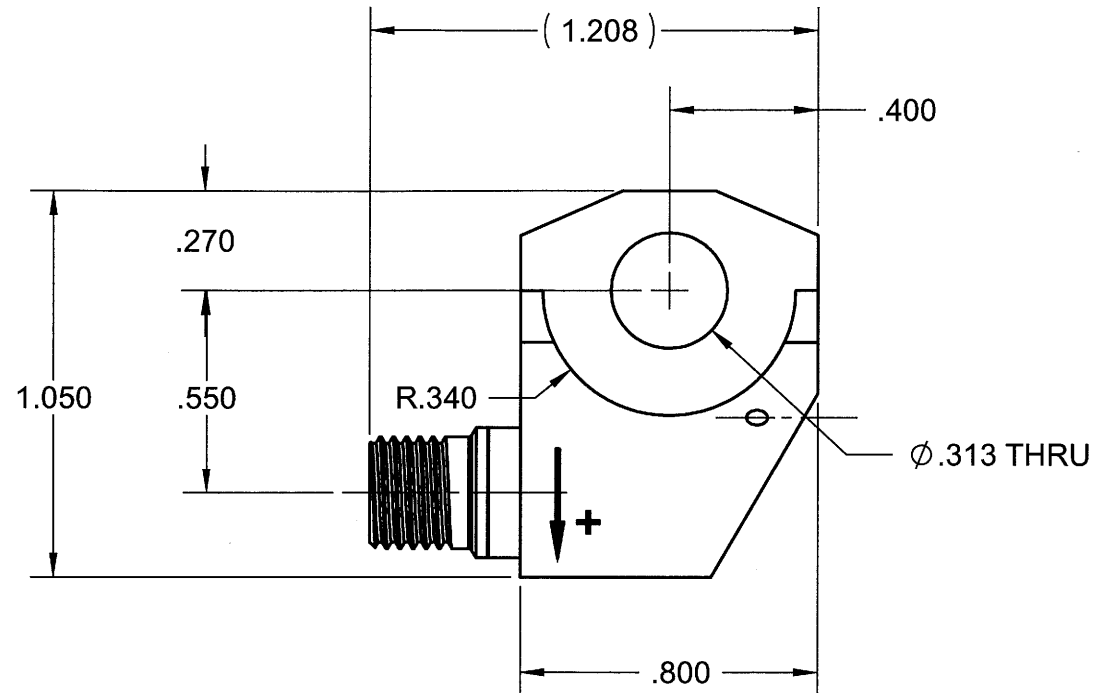
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**REVISIONS**

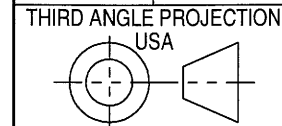
REV.	ECN	DESCRIPTION	BY/DATE	CHK	APPR
A	4668	INITIAL RELEASE	RA 5/30/07	CES	PML



**ISOMETRIC VIEW**



DRILL HOLE SIZE	TOLERANCE
.0135 THRU .125	+ .004 / - .001
.1260 THRU .250	+ .005 / - .001
.2510 THRU .500	+ .006 / - .001
.5010 THRU .750	+ .008 / - .001
.7510 THRU 1.000	+ .010 / - .001
1.001 THRU 2.000	+ .012 / - .001



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.  
 ALL MACHINED SURFACES  $\sqrt{63}$   
 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.

UNLESS OTHERWISE SPECIFIED:  
 DIMENSIONS ARE IN INCHES.  
 TOLERANCES ARE:  
 DECIMALS .XX ± .010  
 .XXX ± .005  
 ANGLES ± 1°

CONTRACT NO. \_\_\_\_\_  
 APPROVALS ORIG RA DATE 5/28/07  
 CHK CES 06-04-07  
 APP PML 6-4-07

MATERIAL: N/A  
 FINISH: N/A  
 DO NOT SCALE DRAWING

**DYTRAN INSTRUMENTS, INC.** **MASTER ONLY IF IN RED**

TITLE: **OUTLINE/INSTALLATION, MODEL 3091A**

SIZE <b>B</b>	CAGE CODE <b>2W033</b>	DWG NO <b>127-3091A</b>	REV <b>A</b>
SCALE: 1:1	SOLIDWORKS	SHEET 1 of 1	

	<b>IEPE QUARTZ SHEAR ACCELEROMETER</b>	REV A, ECN 6350, 10/26/09
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- EXCELLENT LINEARITY
- ELECTRICALLY ISOLATED
- HERMETICALLY SEALED

**PHYSICAL**  
Weight, Less Cable  
Size  
Connector  
Length x Width x Height  
Type

Mounting Provision, Integral Bracket  
Material, Accelerometer  
Element Style

ENGLISH		SI	
0.86	oz	25	grams
1.05 x 1.208 x .406	Inches	26.67 x 30.68 x 10.31	mm
3-Pin		3-Pin	
5/16-28 UN-2A		5/16-28 UN-2A	
Ø .312 Thru Hole With 2 Bushings	Inches	Ø 7.924 Thru Hole With 2 Bushings	mm
304L		304L	
Quartz Shear		Quartz Shear	

**PERFORMANCE**  
Sensitivity, ±5% [1]  
Range F.S for ± 5 Volts Output  
Frequency Range [4]  
-15% / +5%  
±5%  
-5% / +15%

Resonant Frequency, Nom  
Equivalent Electrical Noise Floor  
Linearity [2]  
Maximum Transverse sensitivity  
Strain Sensitivity @ 250µε

10	mV/g	1	mV/m/s <sup>2</sup>
±500	g	±4905	m/s <sup>2</sup>
1 to 10	Hz	1 to 10	Hz
10 to 1000	Hz	10 to 1000	Hz
1000 to 3000	Hz	1000 to 3000	Hz
26	kHz	26	kHz
0.007	Grms	0.069	m/s <sup>2</sup> rms
± 1%	% F.S.	± 1%	% F.S.
5	%	5	%
0.012	g/µε	0.12	m/s <sup>2</sup> /µε

**ENVIRONMENTAL**  
Maximum Vibration  
Maximum Shock  
Temperature Range  
Seal, Hermetic

±600	Gpeak	±9810	m/s <sup>2</sup> peak
±3000	Gpeak	±49050	m/s <sup>2</sup> peak
-60 to +250	*F	-54 to 121	*C
Welded/GTM Header		Welded/GTM Header	

**ELECTRICAL**  
Supply Current Range [3]  
Compliance Voltage Range  
Output Impedance, Typ  
Bias Voltage  
Discharge Time Constant, Nom  
Output Signal Polarity for Acceleration Along Arrow On The Housing  
Electrical Isolation, Case Ground To Mounting Surface

2 to 20	mA	2 to 20	mA
+ 18 to +30	Volts	+ 18 to +30	Volts
100	Ω	100	Ω
+7 to +9	VDC	+7 to +9	VDC
0.3 to 0.5	Sec	0.3 to 0.5	Sec
Positive		Positive	
10	GΩ,min	10	GΩ,min

**This family also includes:**

Model	Sensitivity	Range F.S ± 5 Volts	Max Vibration/Shock	Resonant Frequency

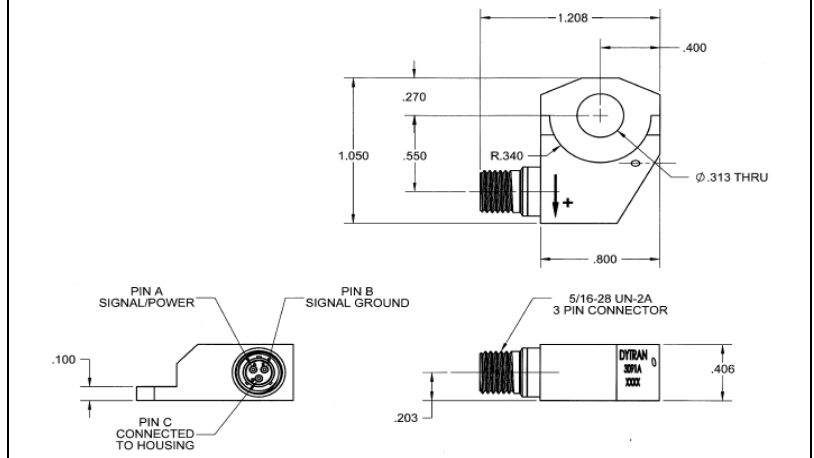
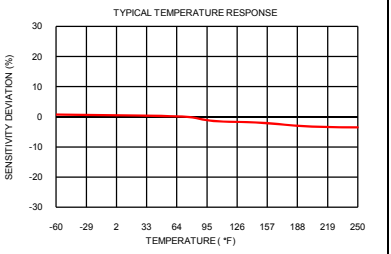
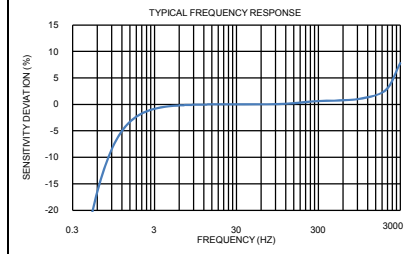
Please, refer to the performance specifications of the products in this family for detailed description

**Supplied Accessories:**

- 1) Accredited calibration certificate (ISO 17025)
- 2) Adaptor bushing (Ø .250 thru hole), model # 6555A, qty 1
- 3) Adaptor bushing (Ø .188 thru hole), model # 6555A1, qty 1

**Notes:**

- [1] Measure 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] Frequency response is referenced to nominal sensitivity
- [5] Lock wire holes are included in the base



Units on the line drawing are in inches, units in brackets are in millimeters. Refer to 127-3091A for more information.

