

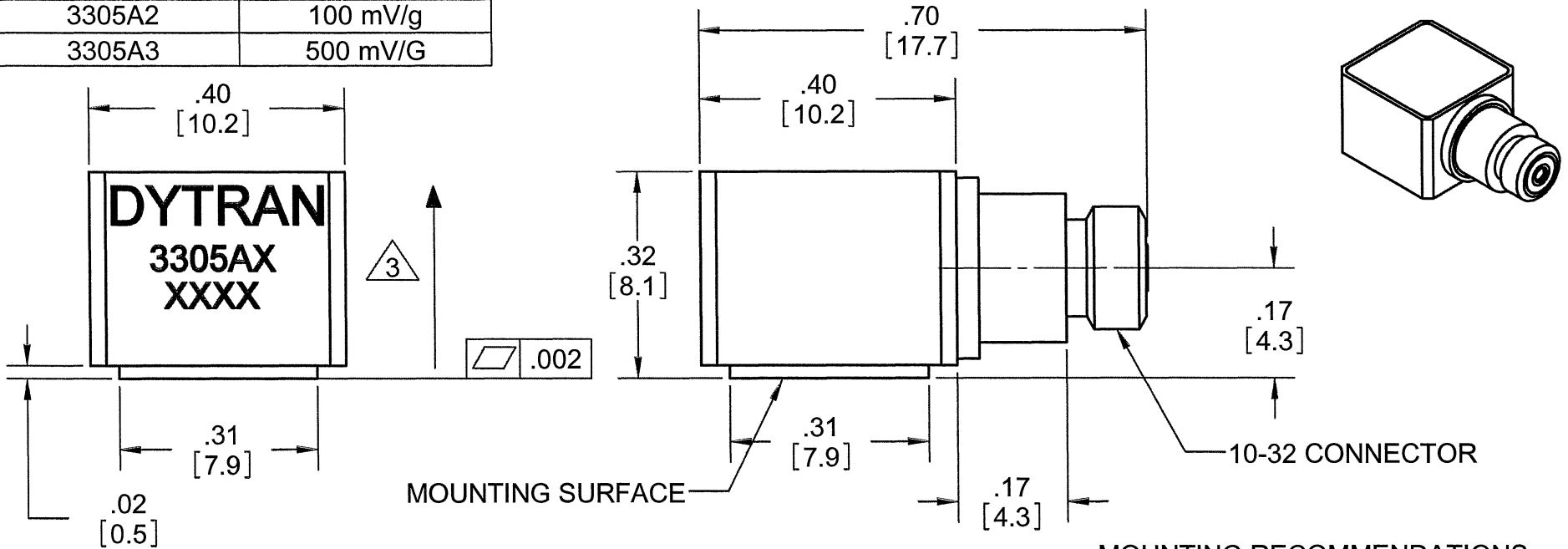
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**REVISIONS**

REV	ECN	DESCRIPTION	BY/DATE	CHK	APPR
A	6692	INITIAL RELEASE	RA 11/03/10	RA	[Signature]

MODEL	SENSITIVITY
3305A1	10 mV/g
3305A2	100 mV/g
3305A3	500 mV/G



3 ARROW SHOWS ACCELERATION DIRECTION FOR POSITIVE OUTPUT

- 2. WEIGHT: 3.7 GRAMS
- 1. MATERIAL: TITANIUM

MOUNTING RECOMMENDATIONS  
 PREPARE A SURFACE AT LEAST .32 BY .32. SURFACE FLATNESS MUST BE EQUAL OR BETTER THAN .0001 TIR. USE ONE DROP OF CYANOACRYLATE TO MOUNT THE ACCELEROMETER.

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. THDS PER MIL-S-7742. DIMENSIONS APPLY AFTER FINISHING.	
3305A	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.
USED ON	NEXT ASSY
APPLICATION	
THIRD ANGLE PROJECTION USA	

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		DATE
ORIG	RA	10/24/10
CHK	[Signature]	11/24/10
APP	[Signature]	11/22/10
APP		

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

TITLE: **OUTLINE/INSTALLATION DRAWING, 3305A SERIES**

SIZE <b>A</b>	CAGE CODE <b>2W033</b>	DWG. NO. <b>127-3305A</b>	REV <b>A</b>
SCALE: NONE		SOLIDWORKS	SHEET 1 OF 1

<b>Model Number</b> 3305A3	<b>PERFORMANCE SPECIFICATION</b>	<b>DOC NO</b> PS3305A3
	<b>SINGLE AXIS IEPE PLANAR SHEAR ACCELEROMETERS</b>	REV A, ECN 6692, 11/19/10



- MINIATURE SIZE
- HERMETICALLY SEALED
- EXCELLENT LINEARITY

**PHYSICAL**

Weight  
Size W x H x L  
Connector Type  
Mounting Provision  
Material : Base, Cap and Connector  
Element Style Material Type

	ENGLISH		SI	
Weight	0.13	oz	3.7	grams
Size	.40 x .32 x .70	Inches	10 x 8.1 x 17.8	mm
Connector	10-32 Coaxial		10-32 Coaxial	
Mounting Provision	Adhesive		Adhesive	
Material	Titanium		Titanium	
Element Style	Ceramic		Ceramic	
	Planar Shear		Planar Shear	

**PERFORMANCE**

Sensitivity, ±5% [1]  
Range F.S for ± 5 Volts Output  
Frequency Response, ±5%  
±15%  
Resonant Frequency, Nominal  
Equivalent Electrical Noise Floor  
Linearity [2]  
Phase Response (±5°)  
Maximum Transverse sensitivity  
Strain Sensitivity

Sensitivity	500	mV/g	51.02	mV/m/s <sup>2</sup>
Range F.S	±10	G's	±98	m/s <sup>2</sup>
Frequency Response	0.3 to 5000	Hz	0.3 to 5000	Hz
	0.15 to 10,000	Hz	0.15 to 10,000	Hz
Resonant Frequency	40	kHz	40	kHz
Equivalent Electrical Noise Floor	0.0002	Grms	0.002	m/s <sup>2</sup> rms
Linearity	± 1%	% F.S.	± 1%	% F.S.
Phase Response	5 to 3000	Hz	5 to 3000	Hz
Maximum Transverse sensitivity	5	%	5	%
Strain Sensitivity	0.04	g/μσ	0.39	m/s <sup>2</sup> /μσ

**ENVIRONMENTAL**

Maximum Vibration  
Maximum Shock  
Temperature Range  
Seal, Hermetic

Maximum Vibration	±200	Gpeak	±1962	m/s <sup>2</sup> peak
Maximum Shock	±5000	Gpeak	±49050	m/s <sup>2</sup> peak
Temperature Range	-60 to +150	°F	-51 to +65	°C
Seal, Hermetic	Glass-to-metal/Welded		Glass-to-metal/Welded	

**ELECTRICAL**

Supply Current Range [3]  
Compliance Voltage Range  
Output Impedance, Typ  
Bias Voltage  
Discharge Time Constant, Nom  
Output Signal Polarity for Acceleration Towards Top

Supply Current Range	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	+11 to +13	VDC	+11 to +13	VDC
Discharge Time Constant, Nom	1.5 to 2.5	Sec	1.5 to 2.5	Sec
Output Signal Polarity for Acceleration Towards Top	Positive		Positive	

**This family also includes:**

Model	Sensitivity (mV/g)	Range F.S ± 5 Volts (G's)	Max Vibration/Shock(± Gpeak)	Resonant Frequency (kHz)
3305A1	10	±500	600/5000	> 35
3305A2	100	±50	400/5000	> 35

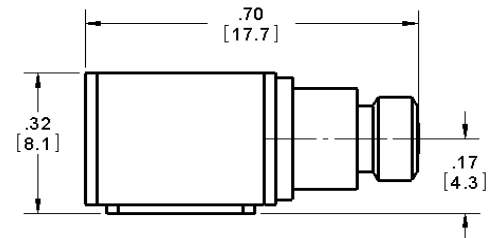
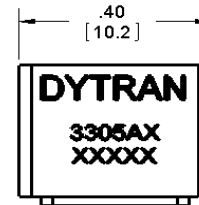
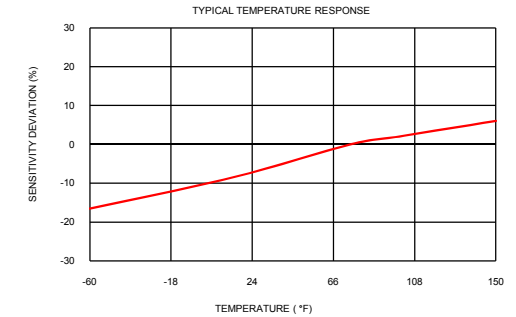
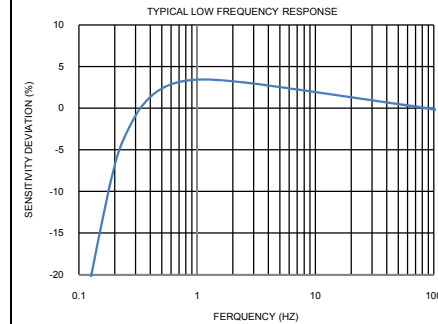
Refer to the performance specifications of the products in this family for detailed description

**Supplied Accessories:**

- 1) Accredited calibration certificate (ISO 17025)

**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] In the interest of constant product improvement, we reserve the right to change the specification without notice



Units on the line drawing are in inches, units in brackets are in millimeters. Refer to 127-3305A for more information.



