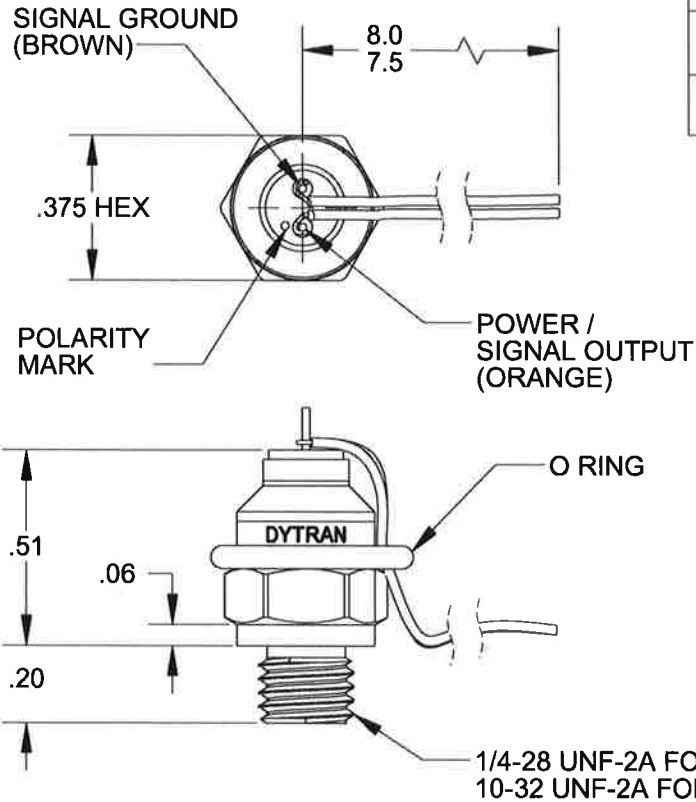


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REVISIONS

REV.	ECN	DESCRIPTION	BY/DATE	CHK	APPR
C	5057	IS: 1/4-28 UNF-2A FOR 3086A1 THRU A6 10-32 UNF-2A FOR 3086A1T THRU A6T WAS: 1/4-28 UNF-2A	RA, 2/13/08	JS	JS
D	5498	ADDED WIRES & O RING	JS 10/16/08	AS	DV
E	12854	ADDED WIRE LENGTH DIMENSION	NDC 07/28/16	<i>LN</i>	<i>RA</i>



2. HOUSING MATERIAL: TITANIUM ALLOY

1. RECOMMENDED MOUNTING TORQUE:
30 LB-IN

DRILL HOLE SIZE	TOLERANCE
.0135 THRU .125	+0.04 / -.001
.1260 THRU .250	+0.05 / -.001
.2510 THRU .500	+0.06 / -.001
.5010 THRU .750	+0.08 / -.001
.7510 THRU 1.000	+0.10 / -.001
1.001 THRU 2.000	+0.12 / -.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.
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	ANGLES
.XX ± .010	± 1°
.XXX ± .005	

MATERIAL	APPROVALS	DATE
FINISH	ORIG	PML
	CHK	JS
	APP	DV
	APP	<i>LN</i>

CONTRACT NO.	
APPROVALS	DATE
ORIG	PML
CHK	JS
APP	DV
APP	<i>LN</i>

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DYTRAN INSTRUMENTS, INC. Chatsworth, CA

TITLE: **OUTLINE DRAWING, 3086A**

SIZE	CAGE CODE	DWG. NO.	REV
A	2W033	127-3086A	E

SCALE: 4:1 SOLIDWORKS SHEET 1 OF 1

Model Number 3086A2	PERFORMANCE SPECIFICATION	DOC NO PS3086A2
MINIATURE IEP E ACCELEROMETER		REV A, ECN 12943, 09/06/16



- **MINIATURE SIZE**
- **EXCELLENT LINEARITY**
- **HERMETICALLY SEALED**

PHYSICAL

Weight
Connector
Mounting Provision
Material
Element Style

Top Mounted
Integral Stud
Accelerometer and Connector

ENGLISH		SI	
0.12	oz	3.5	grams
Solder Pins		Solder Pins	
1/4-28 UNF-2A		1/4-28 UNF-2A	
Titanium Alloy		Titanium Alloy	
Quartz Compression		Quartz Compression	

PERFORMANCE

Sensitivity, Nom. [1]
Range Full Scale
Low Frequency -3dB Point, Nom
Low Frequency -5% Point
Frequency Response, ±10%
Resonant Frequency
Isolation Cup Resonance
Electrical Noise
Linearity [2]
Maximum Transverse Sensitivity

0.10	mV/g	0.01	mV/m/s ²
±50000	g	±490000	m/s ²
0.16	Hz	0.16	Hz
0.5	Hz	0.5	Hz
0.35 to 10000	Hz	0.35 to 10000	Hz
>100	kHz	>100	kHz
>45	kHz	>45	kHz
0.70	Grms	6.87	m/s ² rms
±1	% F.S.	±1	% F.S.
3	%	3	%

ENVIRONMENTAL

Maximum Shock
Temperature Range
Environmental Seal

±100000	Gpeak	±980000	m/s ² peak
-60 to +250	°F	-51 to 121	°C
Hermetic		Hermetic	

ELECTRICAL

Supply Current Range [3]
Compliance Voltage Range [3]
Output Impedance, Nom
Bias Voltage
Discharge Time Constant
Ground Isolation, Case to Mounting Surface, Min

2 to 20	mA	2 to 20	mA
+18 to +20	Volts	+18 to +20	Volts
100	Ω	100	Ω
+7.5 to +9.5	VDC	+7.5 to +9.5	VDC
0.8 to 2.0	Sec	0.8 to 2.0	Sec
10	MΩ	10	MΩ

This family also includes:

Model	Sensitivity (mV/g)	Range F.S. (g)	Maximum Shock (g)	Operating Temp (°F)
3086A1	0.05	70,000	100,000	-60 to +250
3086A3	0.25	20,000	100,000	-60 to +250
3086A4	0.5	10,000	50,000	-60 to +250
3086A5	1.0	5,000	50,000	-60 to +250
3086A6	2.0	2,500	50,000	-60 to +250

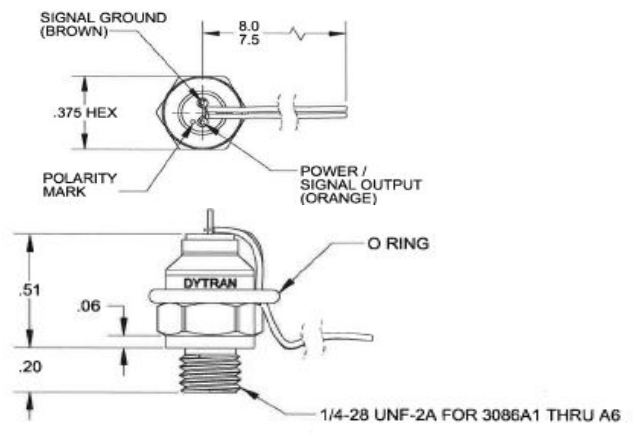
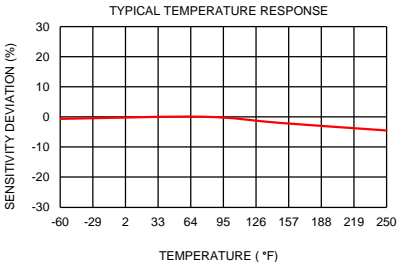
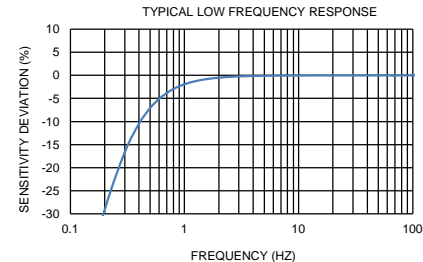
Please refer to the performance specifications of the products in this family for detailed description

Supplied Accessories:

- 1) Accredited calibration certificate (ISO 17025)

Notes:

- [1] Measured by impacting against calibrated force sensor. NIST traceable.
- [2] Percent of full scale or any lesser full scale range, zero-based best fit straight line method.
- [3] Power only with Dytran or Dytran approved current source type power unit. Do not supply power without current limiting. You will destroy the integral electronics. This will void the warranty.
- [4] Recommended Cable: Dytran Part No. 128-6869AXX (XX denotes length in feet)



Units on the line drawing are in inches. Refer to 127-3086A for more information.



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