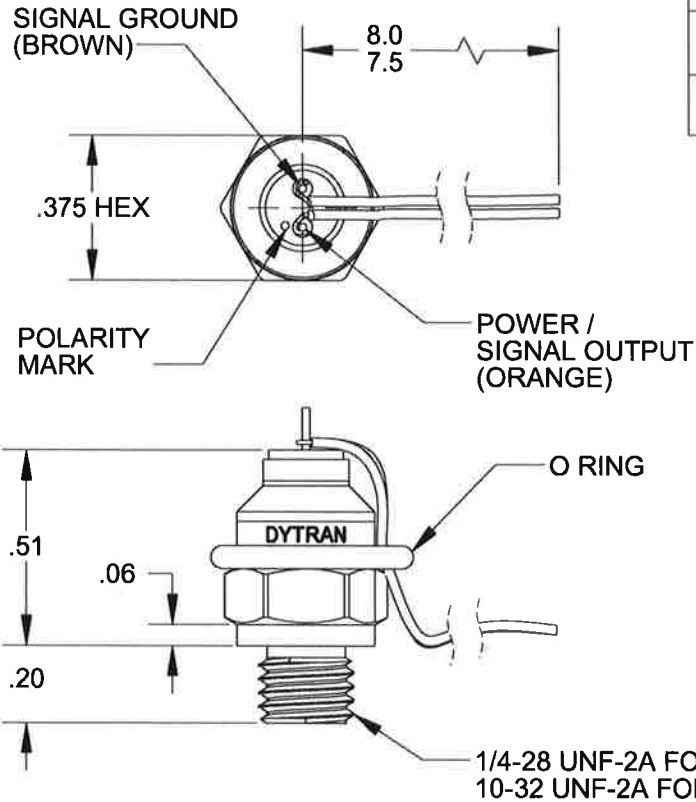


**PROPRIETARY AND CONFIDENTIAL**

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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>hw</i>	<i>pt</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

FINISH

DO NOT SCALE DRAWING

CONTRACT NO.



TITLE: **OUTLINE DRAWING,  
3086A**

APPROVALS		DATE
ORIG	PML	3/28/07
CHK	JS	2/15/08
APP	DV	10/17/08
APP	<i>hw</i>	<i>8/16/16</i>

SIZE	CAGE CODE	DWG. NO.	REV
<b>A</b>	<b>2W033</b>	<b>127-3086A</b>	<b>E</b>

SCALE: 4:1      SOLIDWORKS      SHEET 1 OF 1



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

**PHYSICAL**

Weight  
Connector Top Mounted  
Mounting Provision Integral Stud  
Material Accelerometer and Connector  
Element Style

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

0.25	mV/g	0.026	mV/m/s <sup>2</sup>
±20000	g	±196000	m/s <sup>2</sup>
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
0.28	Grms	2.75	m/s <sup>2</sup> rms
±1	% F.S.	±1	% F.S.
3	%	3	%

**ENVIRONMENTAL**

Maximum Shock  
Temperature Range  
Environmental Seal

±100000	Gpeak	±980000	m/s <sup>2</sup> 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
3086A2	0.1	50,000	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

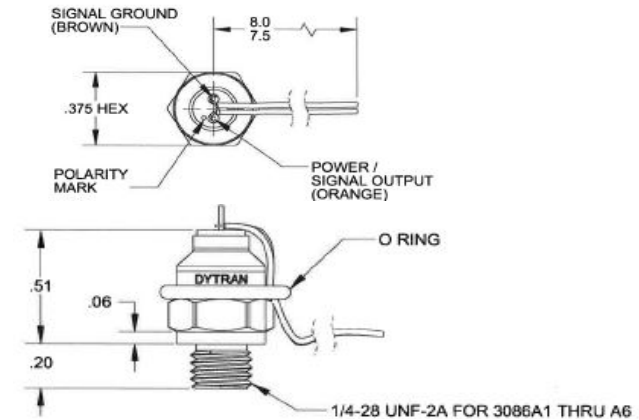
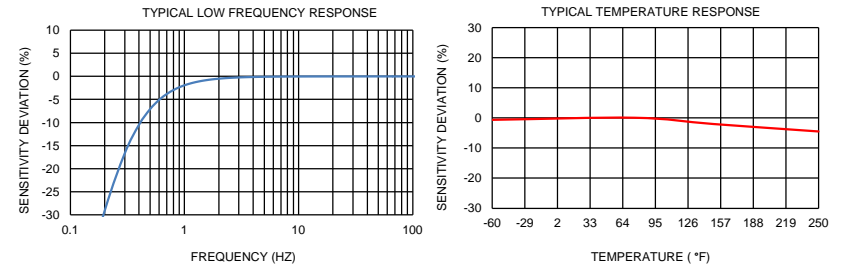
Please refer to the performance specifications of the products in this family for detailed description

**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.

