PROPRIETARY AND CONFIDENTIAL

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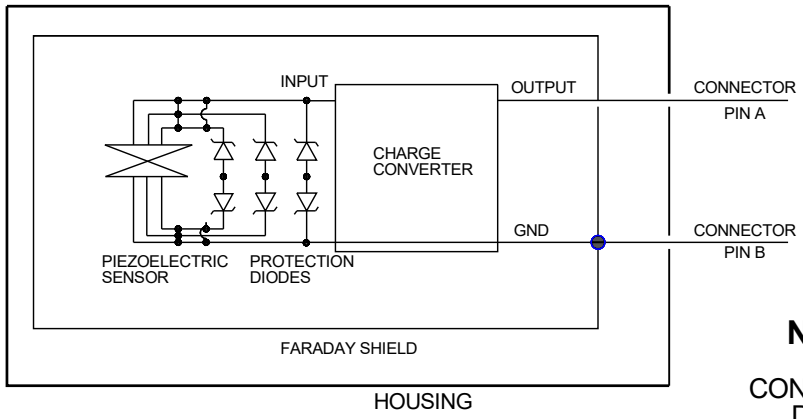
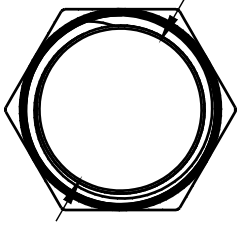
REVISIONS

REV	ECN	DESCRIPTION	BY/DATE	CHK	APPR
C	16713	UPDATED RENDERINGS: IS: 0598, WAS: 1180	AS 05/23/22	AM	DV

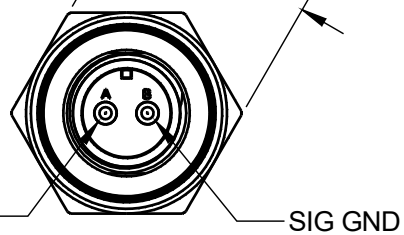
MODEL NO	SENSITIVITY
2006M1	1000 mV/psi
2006M2	300 mV/psi

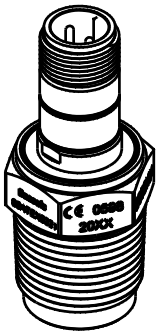


SCHEMATIC DIAGRAM



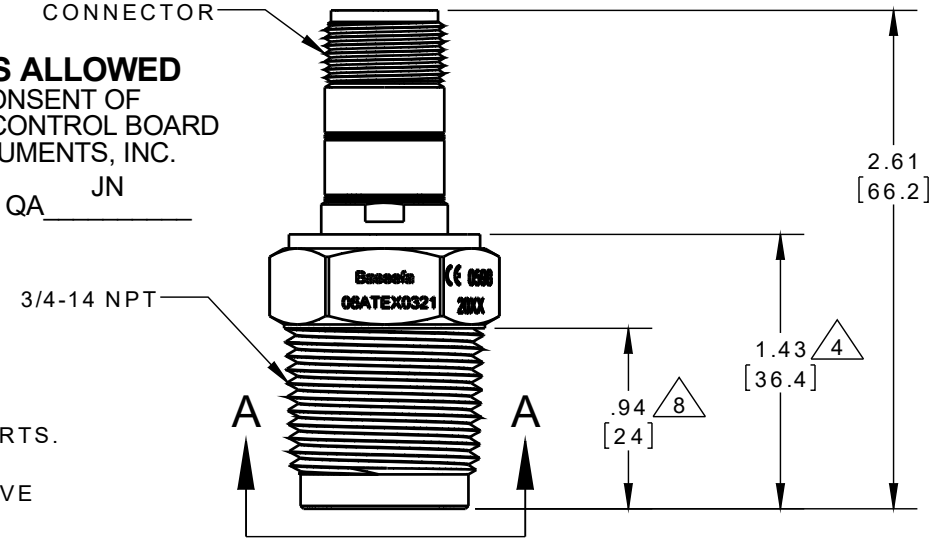
VIEW A-A





NO CHANGES ALLOWED
WITHOUT CONSENT OF
CONFIGURATION CONTROL BOARD
DYTRAN INSTRUMENTS, INC.

ENG DV QA JN



8 EXPOSED TO MEDIA
7. SIGNAL GROUND TO CASE ISOLATION > 100MOhms
6. STRUCTURAL JOINTS ARE TIG WELDED PER DRAWING 178-2006M1.
5. CONNECTOR MATERIAL: 300 SERIES STAINLESS STEEL
4 HOUSING MATERIAL: 316L SERIES STAINLESS STEEL
3. CHARGE CONVERTER HAS NO VOLTAGE ENHANCING/GENERATING PARTS.
2. TOTAL SENSOR CAPACITANCE, Ci (PIEZO ELEMENTS PLUS CIRCUIT CAPACITORS): 8800pF MAXIMUM, THIS SENSOR CONTAINS NO INDUCTIVE COMPONENTS
1. DIODES: 43V±5%max, >500mW, DO-35 ZENER

NOTES: UNLESS OTHERWISE SPECIFIED

USED ON	NEXT ASSY
2006M1	

APPLICATION

THIRD ANGLE PROJECTION USA

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.
63
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.
DIMENSIONS IN BRACKETS [ ] ARE IN MILLIMETERS
TOLERANCES ARE:

INCHES	METRIC	ANGLE
.XX ± .03	.X ± 0.8	± 1°
.XXX ± .010	.XX ± 0.25	

MATERIAL: SEE NOTES

FINISH

DO NOT SCALE DRAWING

CONTRACT NO.

APPROVALS		DATE
ORIG	RA	09/13/12
CHK	DV	10/12/12
APP	AS	10/12/12
APP		

DYTRAN INSTRUMENTS, INC.
Chatsworth, CA

TITLE:
OUTLINE/INSTALLATION DRAWING, MODEL 2006M1

SIZE	CAGE CODE	DWG. NO.	REV
A	2W033	127-2006M1	C

SCALE: NONE | SOLIDWORKS | SHEET 1 OF 1

MODEL NUMBER 2006M1	PERFORMANCE SPECIFICATION	DOC NO. PS2006M1
	ACOUSTIC PRESSURE SENSOR, IEPE	REV D, ECN 16713, 05/24/22

- **HIGH INTENSITY ACOUSTIC SENSOR**
- **HIGH SENSITIVITY**
- **INTERNALLY GROUND ISOLATED**
- **HERMETICALLY SEALED**

		ENGLISH		SI	
PHYSICAL					
Weight, Max		4.7	oz	135	grams
Mounting Provision		3/4-14 NPT		3/4-14 NPT	
Connector	Type	5/8-24, 2-PIN		5/8-24, 2-PIN	
Body/Diaphragm	Material	300 Series Stainless Steel		300 Series Stainless Steel	
Connector	Material	300 Series Stainless Steel		300 Series Stainless Steel	
PERFORMANCE					
Sensitivity +/- 6% [3]		1000	mV/psi	0.145	mV/Pa
Range F.S for 5 volts peak out		5	psi	34474	Pa
Absolute Maximum Pressure [4]		5075	psi	35	MPa
Equivalent Electrical Noise (Resolution)		1.00E-05	psi	0.0689	Pa
Mounted Resonant Frequency		> 21	kHz	> 21	kHz
Frequency Response, +/- 5%		2500	Hz	2500	Hz
Minimum Rise Time of Input Pulse		5	µsec	5	µsec
Discharge Time Constant		0.6 to 1.5	sec	0.6 to 1.5	sec
Linearity [1]		+/-1	%F.S	+/-1	%F.S
Lower -3db Frequency		0.25	Hz	0.25	Hz
Lower 10% Frequency		0.5	Hz	0.5	Hz
ENVIRONMENTAL					
Maximum Vibration		100	g rms	981	m/s^2 rms
Maximum Shock		500	g pk	4905	m/s^2 peak
Temperature Range		-60 to +250	°F	-51 to +121	°C
Thermal Coefficient Of Sensitivity		0.06	% / °F	0.11	% / °C
Environmental Seal		Hermetic		Hermetic	
ELECTRICAL					
Excitation Voltage Range [2]		+20 to +30	VDC	+20 to +30	VDC
Excitation Current Range [2]		2 to 20	mA	2 to 20	mA
Output Impedance, NOM		150	Ω	150	Ω
Output Bias Voltage		11 to 13	VDC	11 to 13	VDC
Output Signal Polarity For Increasing Pressure		Positive		Positive	

This family also includes:

Model	Sensitivity (mV/psi)	Range (psi pk)	Resolution (Grms)	Oper. Temp(°F)	TC (Sec)
2006M2	300	16.5	3.00E-05	-60 to +250	0.6 to 1.5

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

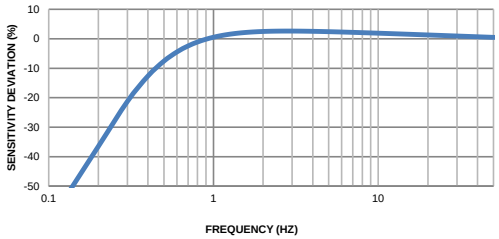
NOTES:

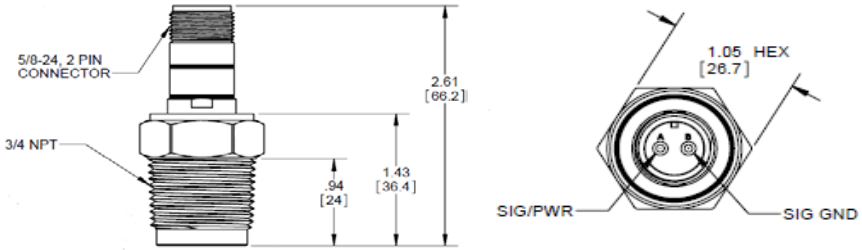
[1] Percent full scale, zero based fit straight line method.
[2] From constant current type power unit only. This sensor MUST NOT BE CONNECTED to a DC power source without current limiting, 20mA Maximum.
[3] A calibration certificate traceable to NIST is supplied with each instrument.
[4] Full pressure must be applied gradually. Do not exceed 100psi/ sec.

CERTIFICATIONS:

ATEX Ex II 1G Ex ia IIC T4 Ga (marked on each microphone)
Baseefa06ATEX0321 (marked on each microphone)
CE certified (marked on each microphone) CE

TYPICAL LOW FREQUENCY RESPONSE





Dimensions in brackets are in millimeters. Refer to 127-2006M1 for more information.

DYTRAN INSTRUMENTS, INC.
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