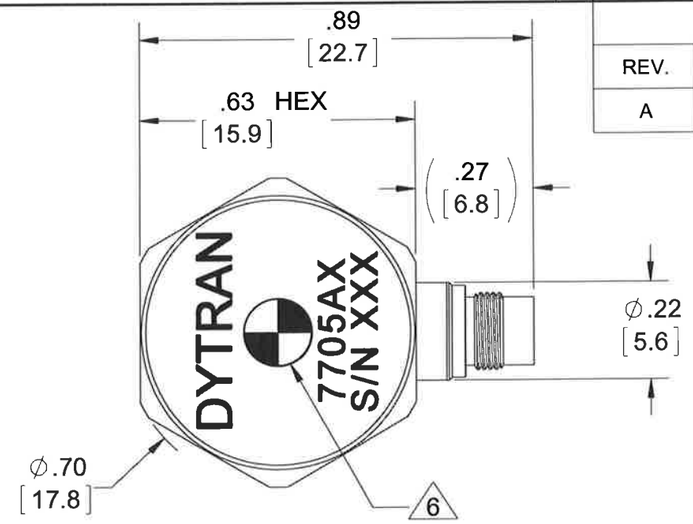
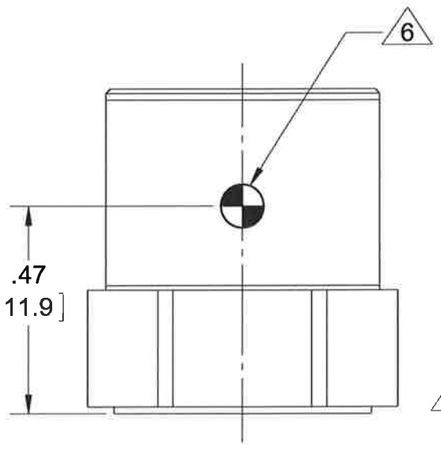
MODEL	REV	ECN	DATE	INPUT RANGE
7705A1	A	10745	01/24/14	±200g
7705A2	A	10745	01/24/14	±40g
7705A3	A	10745	01/24/14	±20g

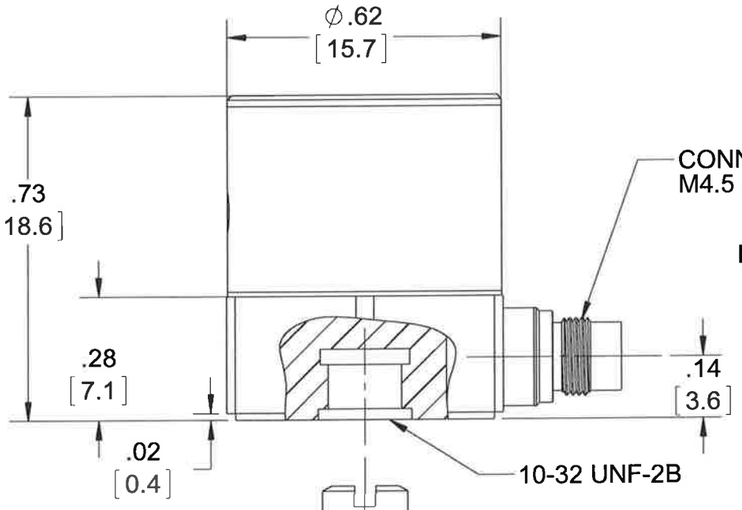
DWG NO 127-7705A SH 1 REV A

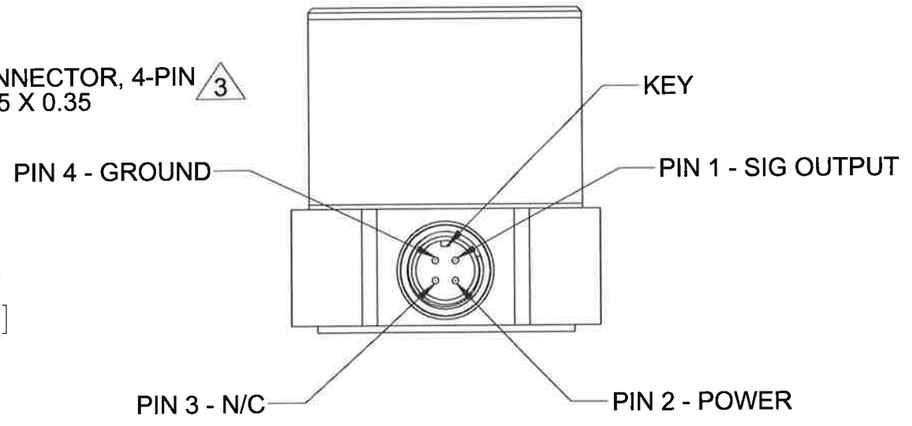
REVISIONS

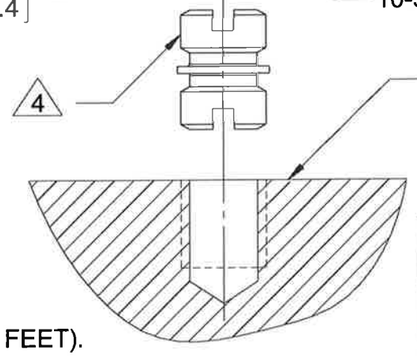
REV.	ECN	DESCRIPTION	BY/DATE	CHK	APPR
A	10745	INITIAL RELEASE	JS 01/24/14		











RECOMMENDED MOUNTING PREPARATION:
PREPARE FLAT MOUNTING SURFACE, Ø.65 [16.5] MIN, FLAT TO .001 TIR.
TAP 10-32 UNF-2B ↧.200 [5.1] MIN. TORQUE TO 10-12 Lb-in.

6 MARKING DENOTES LOCATION OF SENSING ELEMENT'S CENTER OF MASS

5 ARROW INDICATES DIRECTION OF ACCELERATION FOR POSITIVE OUTPUT.

4 MOUNTING STUD, 10-32, MODEL 6200, SUPPLIED.

3 MATES WITH MODEL 6776AXX CABLE (XX = LENGTH IN FEET).

2. HOUSING/CONNECTOR MATERIAL: TITANIUM ALLOY.

1. WEIGHT: 20 GRAMS, MAX.

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.
DIMENSIONS APPLY AFTER FINISHING.

ALL MACHINED SURFACES. 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.
DIMENSIONS IN BRACKETS [ ] ARE IN MILLIMETERS TOLERANCES ARE:

DECIMALS	METRIC	ANGLES
.XX ±.03	.X ±0.8	±1°
.XXX ±.010	.XX ±0.25	

APPROVALS		DATE
ORIG	LN	08/29/13
CHK	DV	1/28/14
APP	AB	1/28/14

DO NOT SCALE DRAWING

THIRD ANGLE PROJECTION USA

DYTRAN INSTRUMENTS, INC. Chatsworth, CA

MASTER ONLY IF IN RED

TITLE: OUTLINE/INSTALLATION DRAWING, 7705A SERIES

SIZE	CAGE CODE	DWG NO	REV
B	2W033	127-7705A	A

SCALE: 4:1 SHEET 1 OF 1

172-0186 REV A

Model Number 7705A1	PERFORMANCE SPECIFICATIONS	DOC NO PS7705A1
	DUAL ELEMENT ACCELEROMETER	REV B ECN 10971, 05/06/14

- **DUAL ELEMENT TECHNOLOGY**
- **EXTENDED LOW FREQUENCY RESPONSE (0 Hz to 10kHz)**
- **HERMETICALLY SEALED**

New type of accelerometer from Dytran Instruments Inc. combines the DC output of variable capacitance element with excellent high frequency response of piezoelectric sensor.
Both outputs are electrically summed up and seamlessly superimposed on each other to provide the broadest frequency response from a single output pin.

This family also includes:

Model	Sensitivity (mV/g)	Range (Gpeak)	Maximum Shock (Gpeak)	Noise Broadband (grms)
7705A2	50	±40	5,000	0.002
7705A3	100	±20	5,000	0.0008

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

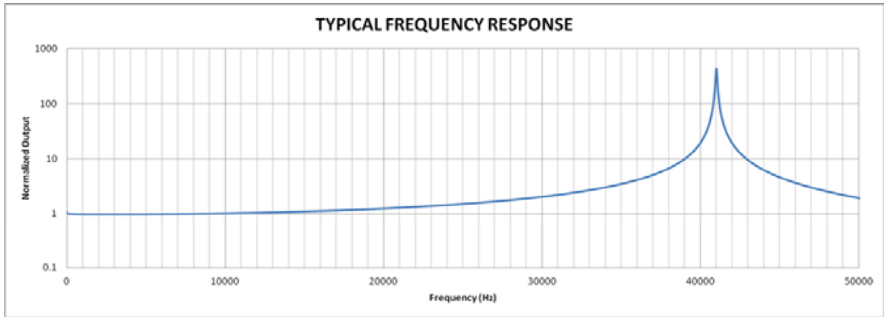
Supplied Accessories:

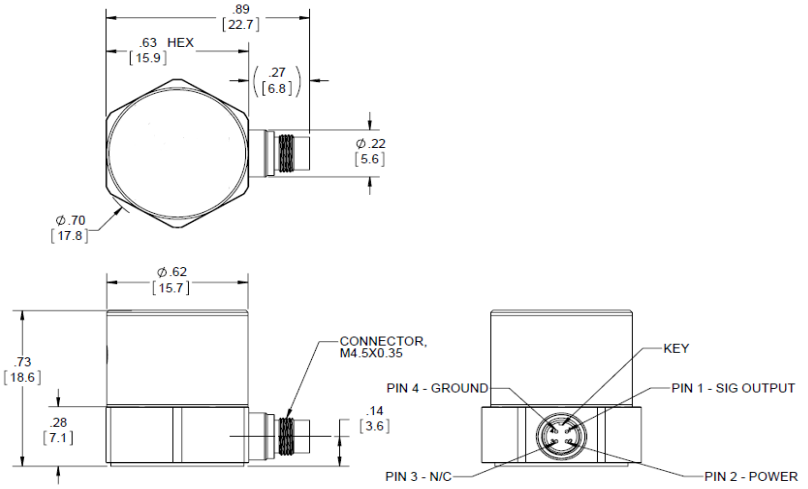
1) Accredited calibration certificate (ISO 17025)
2) Model 6200 mounting stud (10-32 to 10-32) Qty. 1

Notes:

[1] Measured 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 specifications without notice.

		ENGLISH		SI	
PHYSICAL					
Weight, Max.		0.53	oz	15	grams
Mounting		10-32 Tapped Hole		10-32 Tapped Hole	
Connector	Type	4-pin, M4.5X0.35		4-pin, M4.5X0.35	
Housing	Material	Titanium		Titanium	
PERFORMANCE					
Sensitivity, ±10% [1]		10	mV/g	1.0	mV/m/s^2
Acceleration Range		±200	Gpeak	±1962	m/s^2 peak
Frequency Response, ±10%		0 to 10,000	Hz	0 to 10,000	Hz
Resonance Frequency		>38	kHz	>38	kHz
Transverse Sensitivity		<3	%	<3	%
Output Noise, Broadband, Max.		0.008	Grms	0.0785	m/s^2 rms
Spectral Noise	1Hz	2000	µGrms/sqr(Hz)	19,620	µm/s^2 rms/sqr(Hz)
	10Hz	310	µGrms/sqr(Hz)	3041	µm/s^2 rms/sqr(Hz)
	100Hz	120	µGrms/sqr(Hz)	1177	µm/s^2 rms/sqr(Hz)
	1kHz	30	µGrms/sqr(Hz)	294	µm/s^2 rms/sqr(Hz)
	10kHz	25	µGrms/sqr(Hz)	245	µm/s^2 rms/sqr(Hz)
ENVIRONMENTAL					
Maximum Mechanical Shock		5,000	Gpeak	49,050	m/s^2
Bias Temperature Shift, Max [3]		56	(ppm of span)/°F	101	(ppm of span)/°C
Bias Calibration Error		1.5	% of span	1.5	% of span
Operating Temperature		-60 to +250	°F	-51 to 121	°C
Scale Factor Temperature Shift [3]		-83 to +83	ppm/°F	-150 to +150	ppm/°C
Seal		Hermetic		Hermetic	
POWER					
Compliance Voltage		+5 to +28	VDC	+5 to +28	VDC
Current Range		5 to 10	mA DC	5 to 10	mA DC
Output Bias Voltage, Typical		2.45	VDC	2.45	VDC
Output Impedance, Nom.		1	Ω	1	Ω
Power Supply Rejection Ratio		>65	dB	>65	dB





Units o

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