PROPRIETARY AND CONFIDENTIAL

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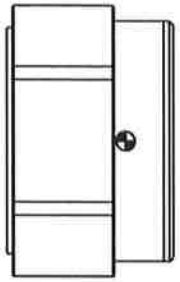
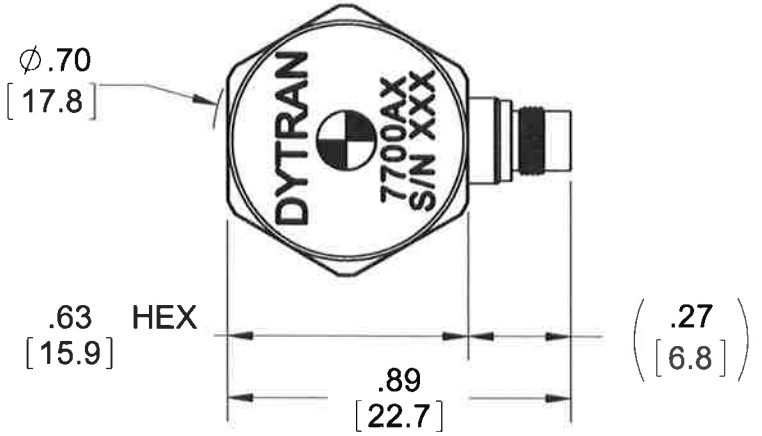
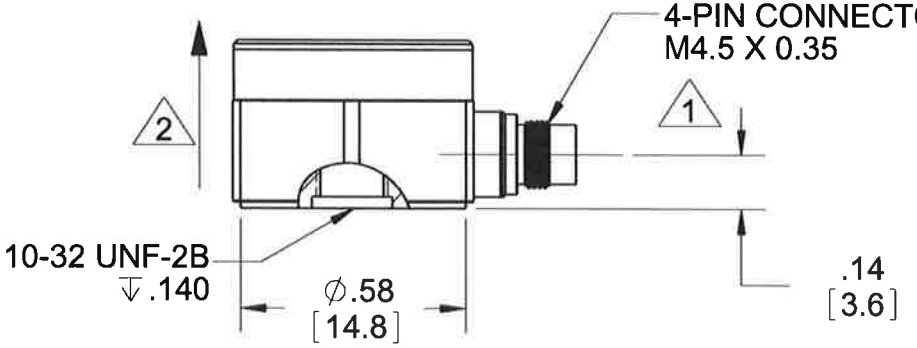
MODEL	RANGE
7700A1	±5G
7700A2	±10G
7700A3	±25G
7700A4	±50G
7700A5	±100G
7700A6	±200G

REVISIONS

REV	ECN	DESCRIPTION	BY/DATE	CHK	APPR
C	9942	SHT 2 - .44 [11] WAS: .50 [12.7]	LN 05/20/13	JS	DV
D	11120	NOTE 5: TEMPERATURE RANGE -40 TO 248 °F [-40 TO 120 °C] WAS -40 TO 176 °F [-40 TO 80 °C]	EC 07/07/14	91	DV







6. WEIGHT: 8 GRAMS MAX
5. OPERATING TEMPERATURE RANGE: -40 TO 248 °F [-40 TO 120°C]
4. HOUSING/CONNECTOR MATERIAL: TITANIUM ALLOY
3. MOUNT USING DYTRAN 6200 MODEL (SUPPLIED)
2. ARROW INDICATES DIRECTION OF ACCELERATION FOR POSITIVE OUTPUT
1. MATES WITH DYTRAN 6895AXX CABLE (XX = LENGTH IN FEET)

NOTES: UNLESS OTHERWISE SPECIFIED

USED ON	NEXT ASSY
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	ANGLES
.XX ± .03	.X ± 0.8	± 1°
.XXX ± .010	.XX ± 0.25	

MATERIAL

FINISH

DO NOT SCALE DRAWING

CONTRACT NO.

APPROVALS		DATE
ORIG	DV	02/23/11
CHK	LN	08/14/12
APP	DV	08/21/12
APP	DV	8/30/14

DYTRAN INSTRUMENTS, INC. Chatsworth, CA

MASTER ONLY IF IN RED

TITLE:

OUTLINE/INSTALLATION DRAWING, 7700 SERIES

SIZE	CAGE CODE	DWG. NO.	REV
A	2W033	127-7700A	D

SCALE: NONE | SOLIDWORKS | SHEET 1 OF 2

172-0081, REV C

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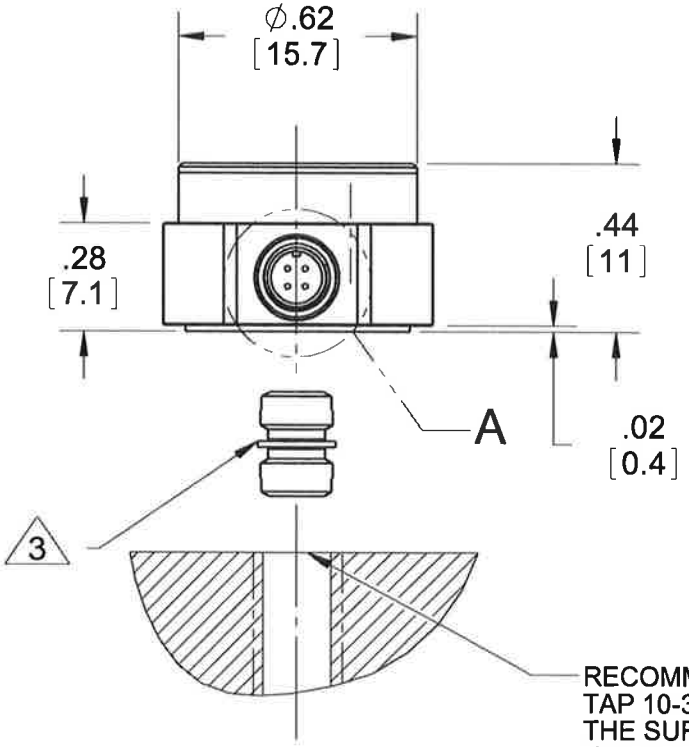
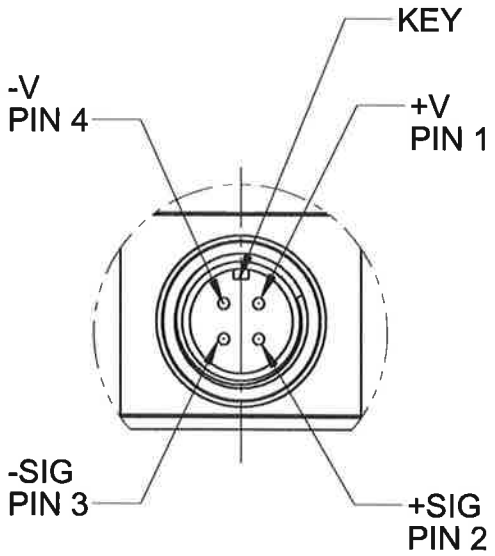


RECOMMENDED MOUNTING PREPARATION:
TAP 10-32 UNF-2B X.160 MIN DEEP. ASSURE THE SURFACE FLATNESS BETTER THAN .001 TIR. MOUNTING TORQUE: 6-8 LB-IN.



DETAIL A
SCALE 4 : 1

USED ON	NEXT ASSY
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	ANGLES
.XX ± .03	.X ± 0.8	± 1°
.XXX ± .010	.XX ± 0.25	

MATERIAL

FINISH

DO NOT SCALE DRAWING

CONTRACT NO.

APPROVALS		DATE
ORIG	DV	02/23/11
CHK	LN	08/14/12
APP	DV	08/21/12
APP		

DYTRAN INSTRUMENTS, INC. Chatsworth, CA

MASTER
ONLY IF IN RED

TITLE:
OUTLINE/INSTALLATION DRAWING, 7700 SERIES

SIZE	CAGE CODE	DWG. NO.	REV
A	2W033	127-7700A	D

SCALE: NONE | SOLIDWORKS | SHEET 2 OF 2

172-0081, REV C

Model Number 7700A3	PERFORMANCE SPECIFICATION	DOC NO PS7700A3
	VARIABLE CAPACITANCE ACCELEROMETER	REV F, ECN 16967, 11/16/22

- **POWER SUPPLY IDENTICAL TO STRAIN GAGE SENSORS**
- **VARIABLE CAPACITANCE ACCELEROMETER**
- **DIFFERENTIAL MODE**
- **HERMETICALLY SEALED**
- **DC RESPONSE**

		ENGLISH		SI	
PHYSICAL					
Weight, Max		0.28	oz	8.0	grams
Connector	Type	4-PIN, M4.5 x 0.35 THD		4-PIN, M4.5 x 0.35 THD	
Mounting	Tapped Hole	10-32 UNF-2B		10-32 UNF-2B	
Material		Ti-6Al-4V		Ti-6Al-4V	
PERFORMANCE					
Input Range		±25	g pk	±245	m/s^2 pk
Frequency Response	(±5%)	0-500	Hz	0-500	Hz
	(±3dB)	0-1400	Hz	0-1400	Hz
Sensitivity Differential, ±5% [1]		20	mV/g	2.0	$mV/m/s^2$
Output Noise, Differential ,Typ		37	µg RMS/√Hz	363	$\mu m/s^2$ RMS/√Hz
Non-Linearity, Max [2]		0.5	% F.S	0.5	% F.S
Sensitivity Change with Excitation Voltage (6-22 Volts)		0.3	%	0.3	%
Cross Axis Sensitivity		< 3	%	< 3	%
ENVIRONMENTAL					
Maximum Mechanical Shock (0.1 ms)		±5000	g pk	±49050	m/s^2 pk
Bias Temperature Shift ,Max [3]		111	(ppm of span)/°F	200	(ppm of span)/°C
Sensitivity Temperature Shift		-139 to +139	ppm/°F	-250 to +250	ppm/°C
Operating Temperature Range		-67 to 257	°F	-55 to 125	°C
Seal		Hermetic		Hermetic	
ELECTRICAL					
Output Common Mode Voltage ± VDC		[4]		[4]	
Output Impedence,Nom		1225	Ω	1225	Ω
Operating Voltage		±3 to ±11	VDC	±3 to ±11	VDC
Operating Current, Max		13	mA Dc	13	mA Dc
Change in Operating Current to Excitation Voltage		0.25	mA/V	0.25	mA/V
Electrical Isolation (Case)		> 100	MΩ	> 100	MΩ

This family also includes:

Model	Input Range (g pk)	Frequency response (Hz) +/-3dB	Sensitivity Differential, ± 5% (mV/g)	Max.Shock (0.1ms)	Noise Differential (µg RMS/√Hz)
7700A1	±5	0-500	100	2000	12
7700A2	±10	0-1000	50	5000	18
7700A4	±50	0-2000	10	5000	50
7700A5	±100	0-2500	5	5000	100
7700A6	±200	0-3000	2.5	5000	200

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

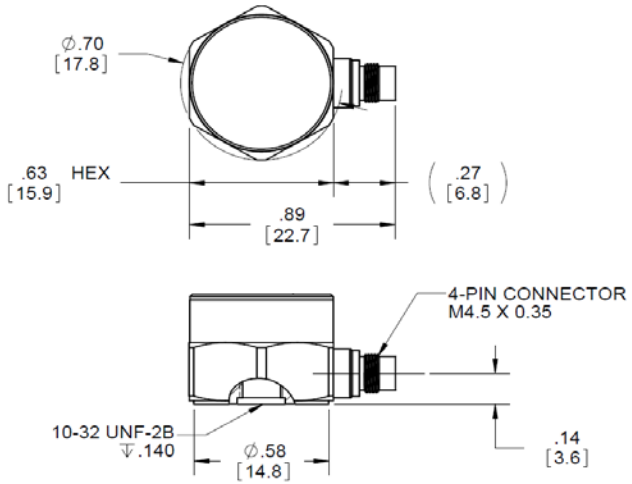
Supplied Accessories:

1) Accredited calibration certificate (ISO 17025)
2) Mounting stud model # 6200

Notes:

[1] Single ended sensitivity is half of values shown
[2] -90% to +90% of Full Scale
[3] Over the rated temperature range
[4] Bias voltage equal to (+ v - (-v)) / 2
[5] Mating cable 6895A
[6] In the interest of constant product improvement, we reserve the right to change specifications without notice.

It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary overtime. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts.



Units on the line drawing are in inches. Refer to 127-7700A for more information.

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