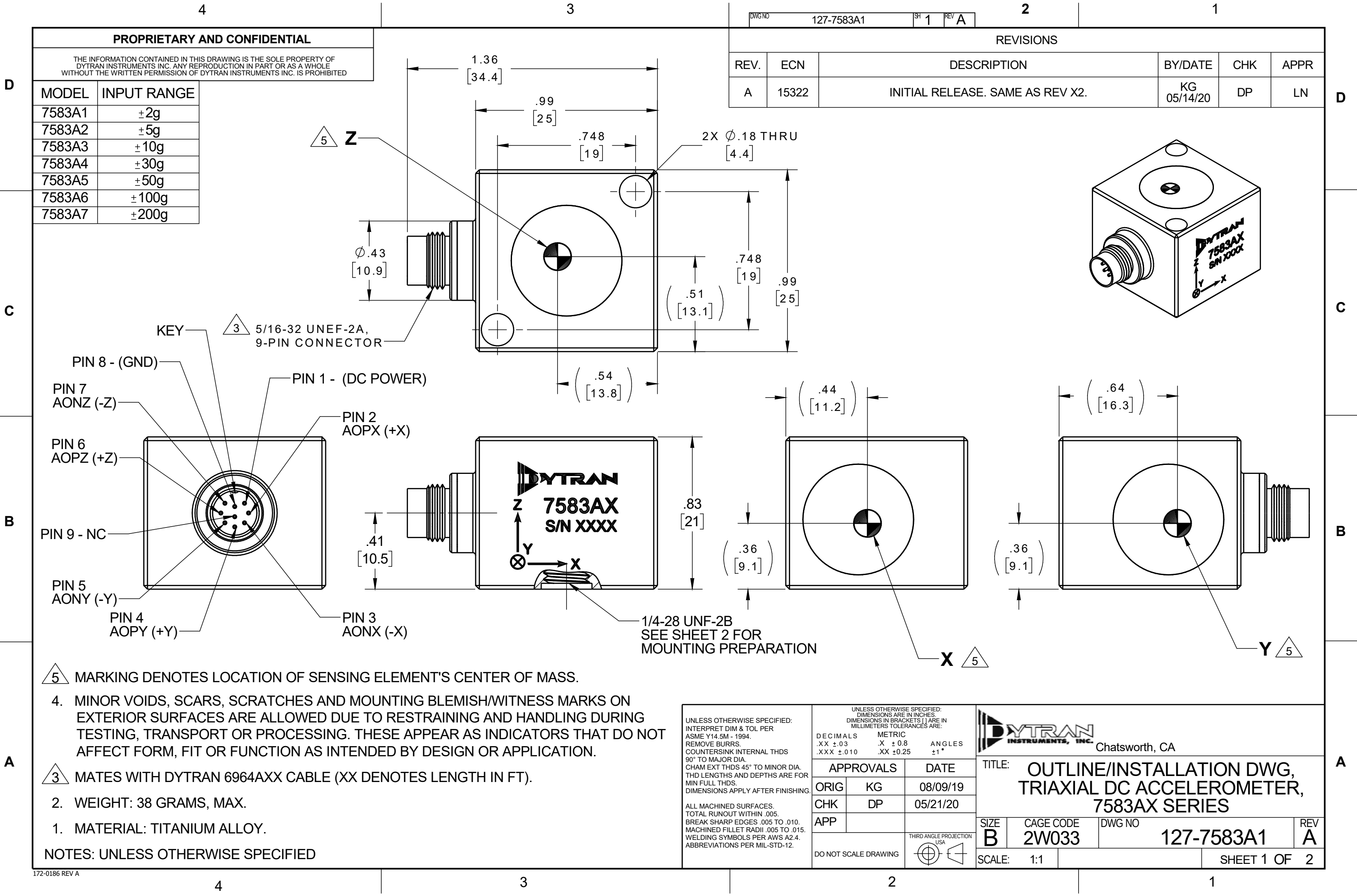




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MODEL	INPUT RANGE
7583A1	±2g
7583A2	±5g
7583A3	±10g
7583A4	±30g
7583A5	±50g
7583A6	±100g
7583A7	±200g

DWGNO		127-7583A1		SH	1	REV	A	2		1	
REVISIONS											
REV.	ECN	DESCRIPTION						BY/DATE	CHK	APPR	
A	15322	INITIAL RELEASE. SAME AS REV X2.						KG 05/14/20	DP	LN	

KEY

PIN 8 - (GND)

PIN 7 AONZ (-Z)

PIN 6 AOPZ (+Z)

PIN 9 - NC

PIN 5 AONY (-Y)

PIN 4 AOPY (+Y)

PIN 3 AONX (-X)

PIN 2 AOPX (+X)

PIN 1 - (DC POWER)

5 MARKING DENOTES LOCATION OF SENSING ELEMENT'S CENTER OF MASS.

4. MINOR VOIDS, SCARS, SCRATCHES AND MOUNTING BLEMISH/WITNESS MARKS ON EXTERIOR SURFACES ARE ALLOWED DUE TO RESTRAINING AND HANDLING DURING TESTING, TRANSPORT OR PROCESSING. THESE APPEAR AS INDICATORS THAT DO NOT AFFECT FORM, FIT OR FUNCTION AS INTENDED BY DESIGN OR APPLICATION.

3 MATES WITH DYTRAN 6964AXX CABLE (XX DENOTES LENGTH IN FT).

2. WEIGHT: 38 GRAMS, MAX.

1. MATERIAL: TITANIUM ALLOY.

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.		UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES. DIMENSIONS IN BRACKETS [] ARE IN MILLIMETERS TOLERANCES ARE: DECIMALS METRIC .XX ±.03 .X ±0.8 ANGLES .XXX ±.010 .XX ±0.25 ±1°		DYTRAN INSTRUMENTS, INC. Chatsworth, CA				
				TITLE: OUTLINE/INSTALLATION DWG, TRIAxIAL DC ACCELEROMETER, 7583AX SERIES				
				SIZE	CAGE CODE	DWG NO	REV	
				B	2W033	127-7583A1	A	
APPROVALS		DATE		SCALE: 1:1				
ORIG	KG	08/09/19		SHEET 1 OF 2				
CHK	DP	05/21/20						
APP								
DO NOT SCALE DRAWING		THIRD ANGLE PROJECTION USA						

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D

D

C

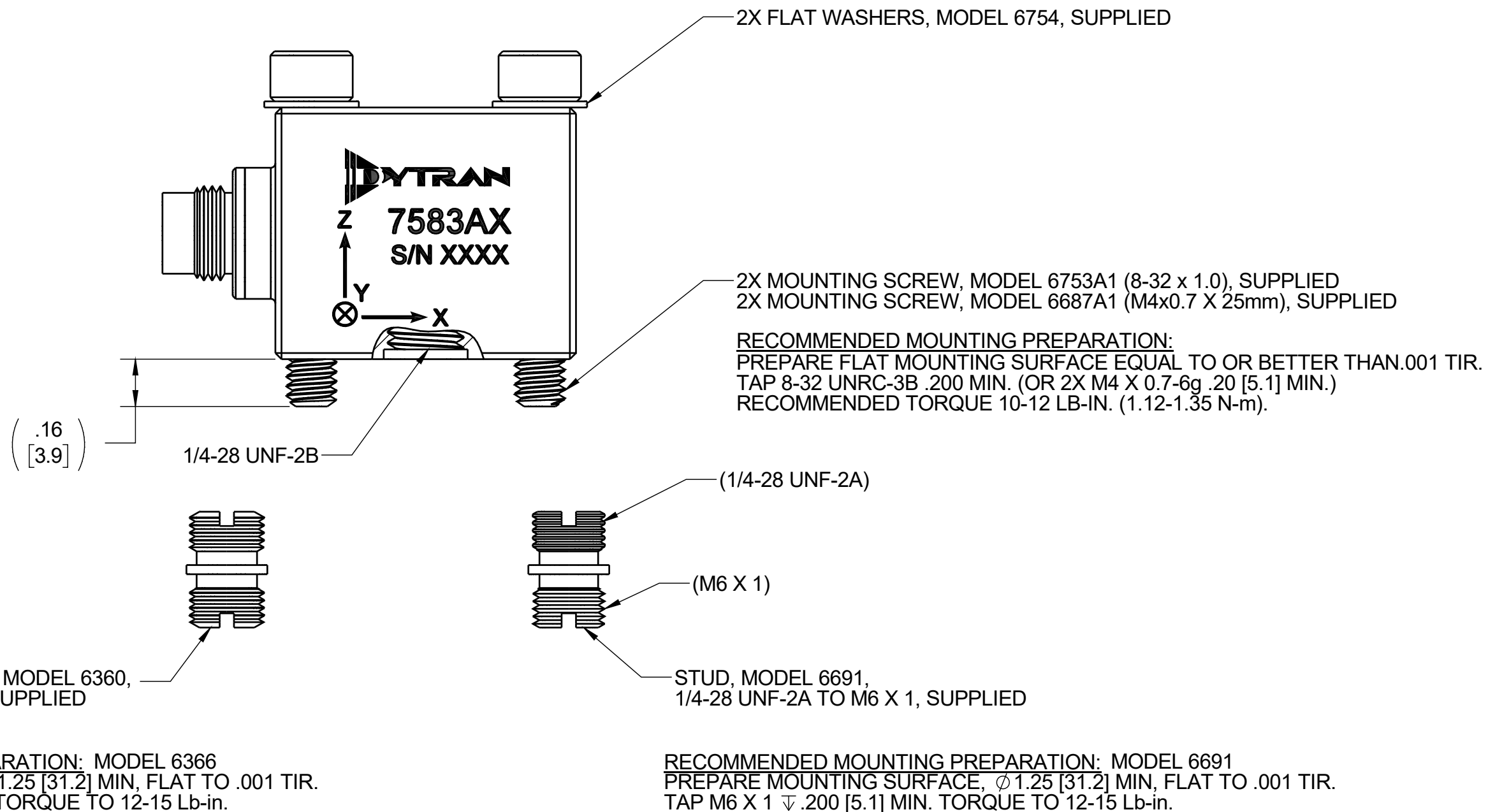
C

B

B

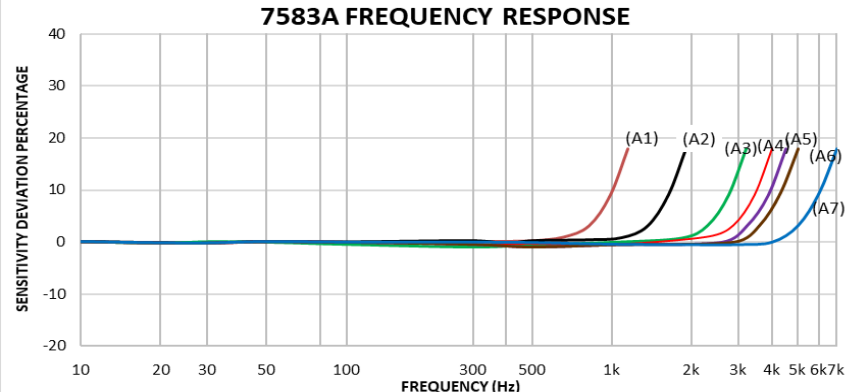
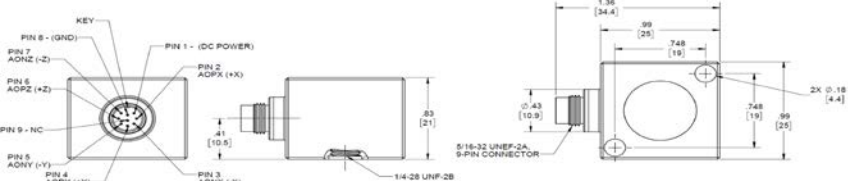
A

A



TITLE: OUTLINE/INSTALLATION DWG,
TRIAxIAL DC ACCELEROMETER,
7583AX SERIES

SIZE	CAGE CODE	DWG NO	REV
B	2W033	127-7583A1	A
SCALE: 2:1		SHEET 2 OF 2	

Model Number 7583A6		PERFORMANCE SPECIFICATION				DOC NO PS7583A6																																											
		TRIAXIAL VARIABLE CAPACITANCE ACCELEROMETER				REV B, ECN 15908, 08/28/20																																											
		• TRIAXIAL VARIABLE CAPACITANCE ACCELEROMETER • DIFFERENTIAL MODE • HERMETICALLY SEALED • DC RESPONSE • HIGH SHOCK SURVIVAL • EXTENDED FREQUENCY RESPONSE																																															
		ENGLISH		SI																																													
PHYSICAL																																																	
Weight, Max	Type	1.33	oz	38	grams																																												
Connector	Thru Holes	9-pin, 5/16-32 UNEF-2A		9-pin, 5/16-32 UNEF-2A																																													
Mounting		2 X Ø.18"		2 X Ø4.57mm																																													
Material		Titanium Alloy		Titanium Alloy																																													
Sensing Technology		MEMS		MEMS																																													
PERFORMANCE																																																	
Input Range		±100	g pk	±980.7	m/s ² pk																																												
Frequency Response (±5%)		0 - 2600	Hz	0 - 2600	Hz																																												
Frequency Response (±3dB)		0 - 5000	Hz	0 - 5000	Hz																																												
Resonant Frequency		>8500	Hz	>8500	Hz																																												
Sensitivity Differential, ±10% [1]		40	mV/g	4.1	mV/m/s ²																																												
Output Noise, Differential, Typ.		339	µg RMS/√ Hz	3326	µm/s ² RMS/√ Hz																																												
Non-Linearity, Max.		0.5	% F.S.	0.5	% F.S.																																												
Transverse Sensitivity, Max.		3	%	3	%																																												
Phase Shift (2 to 120 Hz)		<4°		<4°																																													
ENVIRONMENTAL																																																	
Maximum Mechanical Shock		6000	g pk	58840	m/s ² pk																																												
Operating Temperature Range		-67 to +257	°F	-55 to +125	°C																																												
Scale Factor Temperature Coefficient [2]		-11 to +122	ppm/°F	-20 to +220	ppm/°C																																												
Seal		Hermetic		Hermetic																																													
ELECTRICAL																																																	
Output Common Mode Voltage		2.45 - 2.65	VDC	2.45 - 2.65	VDC																																												
Bias Calibration Error		0.333	g	0.034	m/s ²																																												
Output Impedance, Nom.		1	Ω	1	Ω																																												
Operating Voltage		+6 to +14	VDC	+6 to +14	VDC																																												
Operating Current (AOP & AON open)		<18	mA DC	<18	mA DC																																												
Power Supply Rejection Ratio		>65	dB	>65	dB																																												
Ground Isolation		>30	MΩ	>30	MΩ																																												
Warm Up Time		<0.5	sec	<0.5	sec																																												
Overload Recovery		<200	µsec	<200	µsec																																												
		This family also includes: <table><tr><th>Model</th><th>Input Range (g pk)</th><th>Frequency Response (Hz) (±3dB)</th><th>Sensitivity Differential, ±10% (mV/g)</th><th>Max.Shock (g pk)</th><th>Noise Differential (µg RMS/√Hz)</th></tr><tr><td>7583A1</td><td>± 2</td><td>0-1150</td><td>2,000</td><td>6000</td><td>8</td></tr><tr><td>7583A2</td><td>± 5</td><td>0-1900</td><td>800</td><td>6000</td><td>17</td></tr><tr><td>7583A3</td><td>± 10</td><td>0-3200</td><td>400</td><td>6000</td><td>34</td></tr><tr><td>7583A4</td><td>± 30</td><td>0-4000</td><td>133</td><td>6000</td><td>102</td></tr><tr><td>7583A5</td><td>± 50</td><td>0-4500</td><td>80</td><td>6000</td><td>170</td></tr><tr><td>7583A7</td><td>± 200</td><td>0-7000</td><td>20</td><td>6000</td><td>678</td></tr></table> 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 6360, 1/4-28 UNF-2A, Qty 1 3) Mounting stud, Model 6691, 1/4-28 UNF-2A to M6 X 1, Qty 1 4) Mounting screws, Model 6753A1, 8-32 x 1.0, Qty. 2 5) Mounting screws, Model 6687A1, M4x0.7 x 25mm, Qty. 2 6) Flat washers, Model 6754, Qty. 2 Notes: [1] Single ended sensitivity is half of values shown. [2] Over the rated temperature range. [3] 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.						Model	Input Range (g pk)	Frequency Response (Hz) (±3dB)	Sensitivity Differential, ±10% (mV/g)	Max.Shock (g pk)	Noise Differential (µg RMS/√Hz)	7583A1	± 2	0-1150	2,000	6000	8	7583A2	± 5	0-1900	800	6000	17	7583A3	± 10	0-3200	400	6000	34	7583A4	± 30	0-4000	133	6000	102	7583A5	± 50	0-4500	80	6000	170	7583A7	± 200	0-7000	20	6000	678
Model	Input Range (g pk)	Frequency Response (Hz) (±3dB)	Sensitivity Differential, ±10% (mV/g)	Max.Shock (g pk)	Noise Differential (µg RMS/√Hz)																																												
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7583A4	± 30	0-4000	133	6000	102																																												
7583A5	± 50	0-4500	80	6000	170																																												
7583A7	± 200	0-7000	20	6000	678																																												
		7583A FREQUENCY RESPONSE 																																															
																																																	
		Units on the line drawing are in inches, dimensions in brackets [] are in millimeters. Refer to 127-7583A1 for more information.																																															
		21592 Marilla Street, Chatsworth, California 91311 Phone: 818.700.7818 Fax:818.698.0362 www.dytran.com For permission to reprint this content, please contact info@dytran.com																																															