

Model Number
7500A1

PERFORMANCE SPECIFICATION
PS7500A1

VARIABLE CAPACITANCE ACCELEROMETER

REV L, ECN 17133, 04/24/23



- VARIABLE CAPACITANCE ACCELEROMETER
- DIFFERENTIAL MODE
- HERMETICALLY SEALED
- DC RESPONSE

		ENGLIS	:H	SI	
PHYSICAL		ENGLIS	оп	SI	
Weight, Max		0.67	oz	19	grams
Connector	Туре	4-PIN, 1/4-28 UNF-2A	1	4-PIN, 1/4-28 UNF-2A	1
Mounting	Thru Holes	2 X Ø.13	†	2 X Ø.13	1
Material		Titanium Alloy]	Titanium Alloy]
PERFORMANCE					
Input Range		±2	g	±19.62	m/s ²
Frequency Response (:	±5%)	0 - 100	Hz	0 - 100	Hz
Frequency Response (±3dB)		0 - 400	Hz	0 - 400	Hz
Resonant Frequency		>1100	Hz	>1100	Hz
Sensitivity Differential,	±10% [1]	1,000	mV/g	101.9	mV/m/s ²
Output Noise, Differential, Typ.		12	μg RMS/√(Hz)	118	μm/s² RMS/√(Hz)
Non-Linearity, Max. [3]		0.5	% Span	0.5	% Span
Transverse Sensitivity, Max.		3	%	3	%
Scale Factor Calibration Error, Max.		1	%	1	%
ENVIRONMENTAL					
Maximum Mechanical Shock		2000	g pk	19620	m/s² pk
Bias Temperature Shift, Max. [2]		111	(ppm of span)/°F	200	(ppm of span)/°C
Bias Calibration Error		0.5	% of span	4	% of span
Operating Temperature Range		-67 to +257	°F	-55 to +125	°C
Scale Factor Temperature Shift [2]		-111 to +111	ppm/°F	-200 to +200	ppm/°C
Seal		Hermetic]	Hermetic]
ELECTRICAL					
Output Common Mode	Voltage, Typ.	2.45	VDC	2.45	VDC
Output Impedance, Nom.		1	Ω	1	Ω
Operating Voltage		+9 to +32	VDC	+9 to +32	VDC
Operating Current (AOI	P & AON open)	<12	mA DC	<12	mA DC
Power Supply Rejection	n Ratio	>65	dB	>65	dB
Ground Isolation		>30	ΜΩ	>30	ΜΩ

I his family also includes:								
Model	Input Range (g)	Frequency Response, ±3dB (Hz)	Sensitivity Differential, ±10% (mV/g)	Max.Shock (gpk)	Noise Differential (μg rms/vHz)			
7500A2	±5	0-500	400	2000	14			
7500A3	± 10	0-1000	200	5000	20			
7500A4	± 25	0-1400	80	5000	55			
7500A5	± 50	0-2000	40	5000	80			
7500A6	± 100	0-2500	20	5000	200			
7500A7	± 200	0-3000	10	5000	300			
7500A8	± 400	0-4000	5	5000	500			

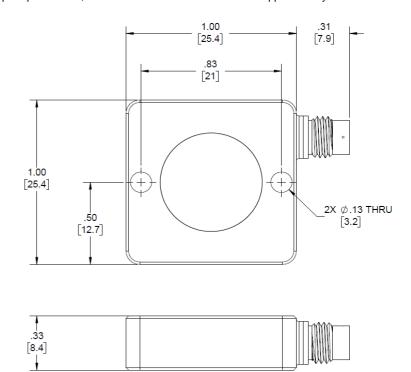
Refer to the performance specifications of the products in this family for detailed description.

Supplied Accessories:

- 1) Accredited calibration certificate (ISO 17025)
- 2) Two mounting screws model # 6868 (SHCS, 4-40 X .50)
- 3) Two mounting screws model # 6688 (SHCS, M3 X 0.5 MM)

Notes:

- [1] Single ended sensitivity is half of values shown.
- [2] Over the rated temperature range.
- [3] -90% to +90% of Full Scale.
- [4] 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, dimensions in brackets [] are in millimeters. Refer to 127-7500A for more information

