

Model Number
7500A1

PERFORMANCE SPECIFICATION

VARIABLE CAPACITANCE ACCELEROMETER

DOC NO
PS7500A1

VARIABLE CAPACITANCE ACCELEROMETER

REV J, ECN 15268, 08/21/19



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

		ENGLISH		SI	
PHYSICAL			7		
Weight, Max		0.46	oz	13	grams
Connector	Туре	4-PIN, 1/4-28 UNF-2A	1	4-PIN, 1/4-28 UNF-2A	
Mounting	Thru Holes	2 X Ø.13	<u> </u>	2 X Ø.13	
Material		Titanium Alloy	<u> </u>	Titanium Alloy	
PERFORMAN	NCE		_		=
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.		7	μ g rms/√ Hz	69	μ m/s² /√ Hz
Non-Linearity, Max. [3]		0.5	% Span	0.5	% Span
Transverse Sensitivity, Max.		3	%	3	%
Scale Factor Calibration Error, Max.		1	%	1	%
		_	_		
ENVIRONME	NTAL		_		_
Maximum Mechanical Shock		2000	gpk	19620	m/s² peak
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 Comm	non 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 (AOP & AON open)		<12	mA DC	<12	mA DC
Power Supply Rejection Ratio		>65	dB	>65	dB
Ground Isolation		>30	ΜΩ	>30	ΜΩ
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This family also includes:								
Input Range (g)	Frequency Response, ±3dB (Hz)	Differential, ±10% (mV/g)	Max.Shock (gpk)	Noise Differential (μg rms/VHz)				
± 5	0-500	400	2000	12				
± 10	0-1000	200	5000	18				
± 25	0-1400	80	5000	25				
± 50	0-2000	40	5000	50				
± 100	0-2500	20	5000	100				
± 200	0-3000	10	5000	200				
± 400	0-4000	5	5000	400				
	Input Range (g) ± 5 ± 10 ± 25 ± 50 ± 100 ± 200	Frequency Response, ±3dB (Hz) ±5 0-500 ±10 0-1000 ±25 0-1400 ±50 0-2500 ±100 0-2500 ±200 0-3000 0-3000	Frequency Response, ±3dB (Hz) Differential, ±10% (mV/g) ± 5	Frequency Response, ±3dB (Hz) Differential, ±10% (mV/g) Max.Shock (gpk)				

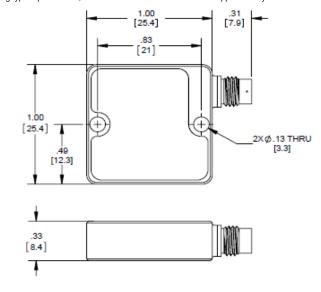
Refer to the performance specifications of the products in this family for detailed description.

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.

