

Model Number
7577A2

PERFORMANCE SPECIFICATION

VARIABLE CAPACITANCE ACCELEROMETER

DOC NO
PS7577A2

REV B, ECN 15261, 08/01/19



- VARIABLE CAPACITANCE ACCELEROMETER
- DIFFERENTIAL MODE
- HERMETICALLY SEALED
- DC RESPONSE
- HIGH SHOCK SURVIVAL
- EXTENDED FREQUENCY RESPONSE

**ENGLISH** 

Į	PHYSICAL					
ļ	Weight, Max		0.60	OZ	17	grams
Į	Connector	Type	4-Pin, 1/4-28 UNF-2A		4-Pin, 1/4-28 UNF-2A	
ļ	Mounting	Thru Holes	2 X Ø.127"		2 X Ø3.23mm	
ļ	Material		Titanium Alloy		Titanium Alloy	
ļ					•	
ļ	PERFORMANCE					
Input Range		±5	g	±49.03	m/s <sup>2</sup>	
Į	Frequency Response (±5%)		0 - 1025	Hz	0 - 1025	Hz
ļ	Frequency Response (±3dB)		0 -1900	Hz	0 -1900	Hz
ļ	Resonant Frequency		>1900	Hz	>1900	Hz
ļ	Sensitivity Differential, ±10% [1]		800	mV/g	81.6	mV/m/s <sup>2</sup>
Į	Output Noise, Differential, Typ.		17	μ g rms/√ Hz	167	μ m/s² /√ Hz
Į	Non-Linearity, Max.		0.5	% F.S.	0.5	% F.S.
ļ	Transverse Sensitivity, Max.		3	%	3	%
ļ						
ļ	ENVIRONMENTAL					
ļ	Maximum Mechanical Shock		6000	gpk	58840	m/s² peak
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	
ļ	Seal		Hermetic		Hermetic	
Į			·			
Į	ELECTRICAL					
Į	Output Common Mode Voltage		2.45 - 2.65	VDC	2.45 - 2.65	VDC
Bias Calibration Error		0.017	g	0.0017	m/s <sup>2</sup>	
Output Impedance, Nom.		1	Ω	1	Ω	
Operating Voltage		+6 to +14	VDC	+6 to +14	VDC	
Operating Current (AOP & AON open)		3 to 6	mA DC	3 to 6	mA DC	
ļ	Power Supply Rejection Ratio		>65	dB	>65	dB
Ground Isolation		>30	ΜΩ	>30	MΩ	
ļ	Warm Up Time		<0.5	sec	<0.5	sec
ı	Overload Recovery		<200	µsec	<200	μsec

This family also includes:								
Model	Input Range (g)	Response (Hz) (±3dB)	Differential, ±10% (mV/g)	Max.Shock (gpk)	Noise Differential (μg rms//Hz)			
7577A1	±2	0-1150	2,000	6000	8			
7577A3	± 10	0-3200	400	6000	34			
7577A4	± 30	0-4000	133	6000	102			
7577A5	± 50	0-4500	80	6000	170			
7577A6	± 100	0-5000	40	6000	339			
7577A7	± 200	0-7000	20	6000	678			

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 of each: Model 6688 (M3.5) and Model 6868 (4-40)

## 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.





