

Model Number
7600B1

PERFORMANCE SPECIFICATION

PS7600B1

VARIABLE CAPACITANCE ACCELEROMETER

REV M. ECN 15839, 08/07/20



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

Size Length x Width x Height Size Length x Hill x Hill x Hill x Height Size Length x Hill x Hi		300	• DC RESPONSE			
Size Length x Width x Height Size Length x Hill x Hill x Hill x Height Size Length x Hill x Hi			ENGLISH		SI	
Size Length x Width x Height Size Length x Hill x Hill x Hill x Height Size Length x Hill x Height Size Length x Hill x	PHYSICAL					
Connector Type 4-PIN, M4.5 x 0.35 THD 4-40 X 7/16 LG SHCS Ti-6Al-4V	Weight, Max		0.1	oz	3.6	grams
Mounting Mounting	Size	Length x Width x Height	.80 x .56 x .23	Inches	20.3 x 14.2 x 5.8	mm
Ti-6Al-4V Ti-	Connector	Туре	4-PIN, M4.5 x 0.35 THD		4-PIN, M4.5 x 0.35 THD	
PERFORMANCE Input Range ±5	Mounting		4-40 X 7/16 LG SHCS		4-40 X 7/16 LG SHCS	
Input Range	Material		Ti-6AI-4V		Ti-6AI-4V	
Frequency Response (±3dB)	PERFORMANCE					
Sesonant Frequency Sample Sampl	Input Range		±5	g pk	±49	m/s² pk
Sensitivity Differential, ±5% [1] 100 mV/g 10.2 mV/m/s² mV/m/s² 10.2 mV/m/s² 10.2 mV/m/s² m	Frequency Response (±3dB)		0-400	Hz	0-400	Hz
Output Noise, Differential ,Typ 12 μg RMS// Hz 118 μ m/s² 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	Resonant Frequency		>3000	Hz	>3000	Hz
Non-Linearity, Max [2] 0.5	Sensitivity Differential, ±5% [1]		100	mV/g	10.2	mV/m/s ²
Sensitivity Change with Excitation Voltage (6-22 Volts) 0.3	Output Noise, Differential ,Typ		12	μg RMS/√ Hz	118	μ m/s² RMS/√ Hz
Cross Axis Sensitivity	Non-Linearity, Max [2]		0.5	% F.S	0.5	% F.S
ENVIRONMENTAL ±50 mV ±50 mV ±50 mV ±50 mV ENVIRONMENTAL	Sensitivity Change with Excitation Voltage (6-22 Volts)		0.3	%	0.3	%
ENVIRONMENTAL Maximum Mechanical Shock (0.1 ms) 2000 g pk ±19620 m/s² pk (ppm of span)/°C 2000	Cross Axis Sensitivity		< 3	%	< 3	%
Maximum Mechanical Shock (0.1 ms) 2000 g pk ±19620 m/s² pk (ppm of span)/*C 2000 20	Zero Measurand Output		±50	mV	±50	mV
Bias Temperature Shift ,Max [3]	ENVIRONMENTAL					
Sensitivity Temperature Shift 277	Maximum Mechanical	Shock (0.1 ms)	2000	g pk	±19620	m/s² pk
Operating Temperature Range -40 to +248 "F -40 to +120 "C Seal Hermetic Hermetic Hermetic *C *C *C *C *D *C *D *D *D *D	Bias Temperature Shift ,Max [3]		111	(ppm of span)/°F	200	(ppm of span)/°C
Seal Hermetic Hermetic ELECTRICAL Output Common Mode Voltage ± VDC [4] [4] Output Impedance, Nom 1225 Ω 1225 Ω	Sensitivity Temperature Shift		277	ppm/°F	500	ppm/°C
ELECTRICAL Output Common Mode Voltage ± VDC [4] [4] Output Impedance, Nom 1225 Ω 1225 Ω	Operating Temperature Range		-40 to +248	°F	-40 to +120	°C
Output Common Mode Voltage ± VDC [4] [4] Output Impedance,Nom 1225 Ω 1225 Ω	Seal		Hermetic	I	Hermetic	
Output Impedance,Nom 1225 Ω 1225 Ω	ELECTRICAL					
	Output Common Mode Voltage ± VDC		[4]	Ī	[4]	1
Operating Voltage [7] ±3 to ±11 VDC ±3 to ±11 VDC	Output Impedance,Nom		1225	Ω	1225	Ω
	Operating Voltage [7]		±3 to ±11	VDC	±3 to ±11	VDC

13

0.25

>100

mA DC

mA/V

МΩ

This family also includes:									
Model	Input Range (g pk)	Frequency response (Hz)	Differential, ±5% (mV/g)	Max.Shock (0.1ms)	Noise Differential (μg RMS/√Hz)				
7600B2	±10	0-600	50	5000	18				
7600B3	±25	0-900	20	5000	25				
7600B4	±50	0-1200	10	5000	50				
7600B5	±100	0-1400	5	5000	100				
7600B6	±200	0-1750	2.5	5000	200				

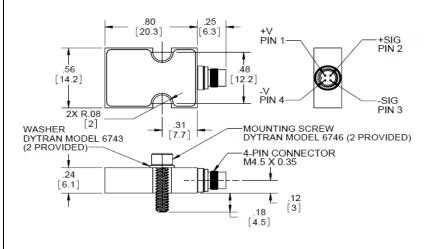
Please, refer to the performance specifications of the products in this family for detailed description

Supplied Accessories:

- 1) Accredited calibration certificate (ISO 17025)
- 2) Two mounting screws model # 6746
- 3) Two mounting washers model # 6743

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 imrpovement, 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 over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts.
- [7] +6.0 to +22.0 VDC in single supply operation with V- grounded.



Units on the line drawing are in inches. Refer to 127-7600B for more information.



Change in Operating Current to Excitation Voltage

Operating Current, Max

Electrical Isolation (Case)

mA DC

mA/V

МΩ

13

0.25

>100