# **Linear Accelerometers**

# SSA-1000-1, SSA-1000-2

The Columbia Series SSA-1000 Solid State Silicon Accelerometers utilize military-grade assembly line construction techniques with the production controls and inspection associated with a Military Certified Quality System. These sensors offer improved performance, smaller size and added features at comparable prices to existing MEMs competition.

Electrical connections are made directly to solder terminals or via an integral shielded cable. Frequency response is factory pre-set at DC to 100 Hz with wideband response. Military-grade packaging techniques have reduced the size of the rugged, lightweight case design, allowing this sensor to withstand the most demanding environmental conditions. *Consult the factory for customized versions of these sensors.* 

Note: Exports of accelerometers from the United States are subject to the licensing requirements of the Export Administration Regulations (EAR) and/or the International Traffic in Arms Regulations (ITAR).

Specifications	SSA-1000-1	SSA-1000-2	
Operational	30A-1000-1		
Range	<u>+</u> 2 G	<u>+</u> 10 G	
Standard Bipolar Output Voltage	±5 Volts Into 100K Load		
Optional Unipolar Output Voltage	0 To +5 VDC		
Excitation	+7.5 To +32 VDC 7 mA Max		
Output Impedance	150 Ohms Nominal		
Sensitive Axis Alignment	< <u>+</u> 0.5° Max.		
Scale Factor Tolerance	<u>±</u> 1%		
Scale Factor Temp Coefficient	±0.02% /Deg C Typical		
Zero Bias (Standard)	0 Volt <u>+</u> 40mV	0 Volt <u>+</u> 25mV	
Zero Bias (Unipolar)	2.500 Volts <u>+</u> 40mV	2.500 Volts <u>+</u> 25mV	
Frequency Response	0 To 100 Hz ( <u>+</u> 0.5 dB)		
Damping	-3dB @ 350 Hz Typical		
Output Noise	< 0.3% F.S.	< 0.1% F.S.	
Cross Axis Sensitivity	<1%		
Non-Linearity	<u>±</u> 0.12% FR		

## **Environmental**

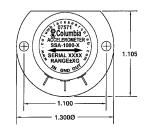
Temperature, Operating	0 To +70 Deg C
Temperature, Storage	-40 To +85 Deg C
Vibration Survival (2 To 2,000 Hz)	20 G RMS
Shock Survival	1200 G, 1 mSec
Humidity	95% R.H.

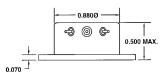
### **Physical**

Physical		
Weight	0.35 Oz (10 Gm)	
Size (Excluding Flange)	0.88 ln Dia. x 0.500 ln H (2.24 cm Dia. x 1.27 cm H)	
Case Material	Aluminum / Black Anodize	
Sealing	Environmental	
Electrical Interface: Standard	3 Terminal Pins	
Optional	Integral Cable, 2 Ft. Long	

- \* Solid State Sensor
- \* Wide Range Input Power
- Choice of Output Configurations
- \* Small Size & Low Cost







### **Ordering Information:**

SSA-1000-1	U	C2F
SSA-1000-2	U	C2F
Accelerometer Standard Output Voltage Standard Zero Bias Standard Terminal Pins		
Optional Unipolar Output 0 To +5VDC		
Optional Integral Cable, 2 Ft Long		
Custom Length Integral Cable Specify Length in Feet: CxF Specify Length in Meters: CxI	М	



Phone: 1.800.813.8471 / Fax: 610.872.3882 / email: sales@columbiaresearchlab.com