

Accelerometer Switch

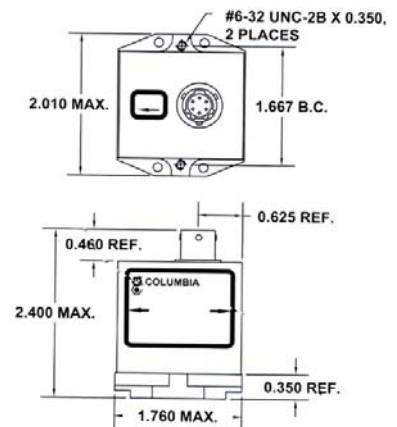
SS-108

The Columbia Model SS-108 Accelerometer Switch is designed to interface with electrical or mechanical systems to control, safeguard or warn of undesirable variations in DC and low frequency acceleration. This model uses Columbia's patented HP suspension system, which assures high accuracy and ruggedness. No signal conditioning is required to the analog output in most applications.

The accelerometer switch contacts can be configured to trigger in one or both directions along the sensitive axis, at a specified G level within a selected operating range. The solid-state relay switching capacity is 500mA at 60VDC and is available with normally open or normally closed contacts. **Consult the factory for customized versions of this sensor.**

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).

- * **Selectable Switch Point**
- * **Single or Bi-Polar Switch**
- * **Choice of Input Power**



Specifications

	SS-108
Operational	
Ranges Available	± 2 G To ± 30 G
G Level Switch Point	Within Selected Operating Range Single G Level –or– Bi-Polar Point
Switch Point Tolerance	$\pm 10\%$ Including Hysteresis
Switch Contacts	Single Pole / Single Throw Normally Open –or– Normally Closed, As Specified
Switch Contact Ratings	0 To 60 VDC, 0.5 Amp, 0.15 Ohm ON Resistance Typical, 100 Ohm OFF Resistance, Bounce Free Operation
Signal Output Voltage	0.200 To 9.800 VDC into 100K Load
Input Power:	+24 To +32 VDC @ 50 mA Max. -or- +12 To +18 VDC @ 50 mA Max.
Zero Bias	+5.000 \pm 0.020 VDC
Bias Temp Coefficient	0.005% F.R./ Deg C
Scale Factor Temp Coefficient	0.02% / Deg C
Accuracy	$\pm 0.15\%$ F.R.
Repeatability	$\pm 0.075\%$ F.R.
Threshold & Resolution	0.001% F.R.
Case Alignment	0.25 Deg. Max
Frequency Response / Roll-off	0 To 100 Hz, As Specified -24 dB / Octave Roll-off

Environmental

Temperature, Operating	-30 To +70 Deg C
Temperature, Storage	-50 To +85 Deg C
Vibration Survival (2 To 2,000 Hz)	10 G RMS, 0.25" Disp D.A.
Shock Survival	100 G, 10 mSec
Ambient Pressure	0 To 5 Atmospheres
Humidity	95% R.H.

Physical

Weight	4.6 Oz (130 Gm)
Size (Including Connector)	1.74 In L x 1.90 In W x 2.37 In H (4.4 cm L x 4.8 cm W x 6.0 cm H)
Case Material	Nickel-Plated Aluminum
Sealing	Environmental
Electrical Interface	Connector PTIH-10-6P or Equivalent
Optional Mating Connector	PT06A-10-6S(SR) or Equivalent

Pin	Connector Pin Assembly	
	Function	
A	+28VDC Power Supply	
B	Power & Signal Ground	
C	Analog Output	
D	Spare	
E	(+) POS Switch Contact	
F	(-) NEG Switch Contact	

Ordering Information:

Model SS-108 Accelerometer Switch
Configured as follows:

Required Data	Options
Range:	± 2 G To ± 30 G ($\pm X$ G)
G Level Switch Point:	Within Selected Operating Range A. (+X G) Single B. ($\pm X$ G) Bi-Polar
Switch Contacts:	A. Normally Open B. Normally Closed
Frequency Response:	Up To 100 Hz (0 To X Hz) Upper Limit Response Required
Input Power	A. +24 To +32 VDC @ 50 mA Max. B. +12 To +18 VDC @ 50 mA Max.
Mating Connector	A. Supplied B. Not Supplied



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