

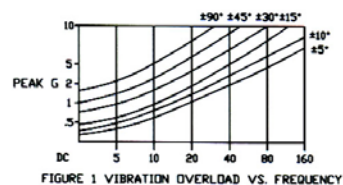
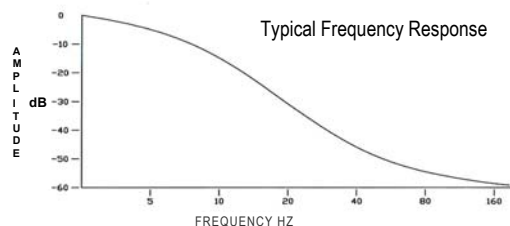
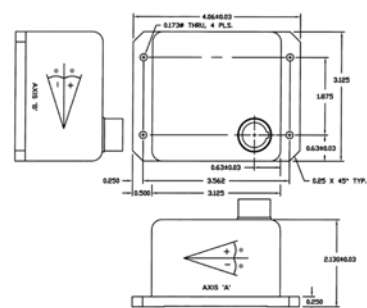
Inclinometers

SI-726BIHPC

The Columbia Model SI-726BIHPC is a biaxial force balance inclinometer designed with an output circuit configuration made for use in 4-20 mA data transmission systems. The 4-20 mA system is used extensively in industrial installations in order to transmit data over long distances in environments where interference from nearby electrical power lines could be a problem.

The Model SI-726BIHPC incorporates Columbia's patented HP suspension system and special desensitization circuitry allowing this device to provide accurate tilt data while in substantial vibration environments. This sensor is intended for applications such as platform stabilization, surface mapping and measuring tilt angles in remote locations. *Consult the factory for customized versions of this sensor.*

- * **Biaxial Tilt Sensor**
- * **4-20 mA Output**
- * **+18 To +28 VDC Operation**
- * **High Performance**



Specifications

Operational	SI-726BIHPC
Ranges Available	$\pm 5^\circ$, $\pm 15^\circ$, $\pm 30^\circ$, $\pm 45^\circ$, $\pm 90^\circ$
Output Current	4-20 mA
Output Function	$I_o = 12 + K \sin \theta$ (mA) $\pm 0.5\%$ of Normal Into a Maximum Load of 600 Ohms
Excitation	+18 To +28 VDC <50 mA
Output Impedance	50 Megohm Typical
Non-Linearity	$\pm 0.1\%$ F.R.
Non-Repeatability	$\pm 0.1\%$ F.R.
Scale Factor Tolerance	$\pm 1\%$
Scale Factor Temp Coefficient	$\pm 0.02\%$ / Deg C
Zero Bias	12 ± 0.02 mA
Zero Bias Temp. Coefficient	$\pm 0.002\%$ F.R. / Deg C
Resolution	0.001% F.R.
Bandwidth	0 To 3 Hz $\pm 5\%$ (-18 dB / Octave Rolloff)
Orthogonal Sensitivity	<1%
Case Alignment	± 0.25 Deg
Vibration Overload vs. Frequency	See Figure 1

Environmental

Temperature, Operating	-40 To +85 Deg C
Temperature, Storage	-40 To +85 Deg C
Random Vibration (2 To 2,000 Hz)	15 G RMS, 0.25" Disp. D.A.
Shock Survival	1000 G, 1 mSec
Humidity	95% R.H.

Physical

Weight	12 Oz (340.2 Gm)
Size	4.06 In L x 3.13 In W x 2.13 In H (1.3 cm L x 7.6 cm W x 5.4 cm H)
Case Material	Anodized Aluminum
Sealing	Environmental
Electrical Interface	Connector PT06A-12-10S(SR)
Mating Connector (Optional)	PTIH-12-10P or Equivalent

I/O Connector Pin Functions:

SI-726BIHPC			
Pin	Function	Pin	Function
A	+ VDC	F	Spare
B	Power Ground	G	Current Output B
C	Current Output A	H	Current Return B
D	Current Return A	J	Spare
E	Spare	K	Spare

Ordering Information:

SI-726BIHPC (+/- X Deg)
Standard Biaxial Inclinometer
 Range +/- X Deg (Required)

Optional Mating Connector

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