

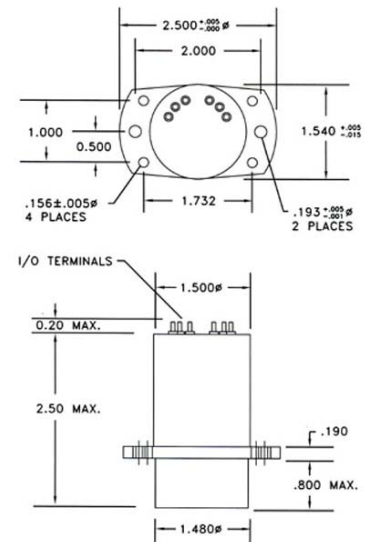
力平衡式/伺服式 角加速度计

SR-107VFR

- * Variable Range Sensor
- * High Performance Fluid Rotor Design

SR-107VFR角加速度传感器是一个可选范围传感器，使用户可以轻松更改比例系数和范围以获得最佳精度和读数匹配。该加速度计采用了力平衡流体转子技术，可产生高水平输出，具有出色的精度，稳定性和线性加速度抑制能力，而无需进行额外的昂贵信号调节。

整个测量范围可在+/- 1至+/- 100弧度/秒的平方范围内调节，只需更改一个外部电阻即可。此外，由于几乎所有角加速度测量都是瞬时的或周期性的，因此用户还可以选择DC阻止选项并定义相关的截止频率。该加速度计可用于以前需要许多固定范围配置的各种应用。

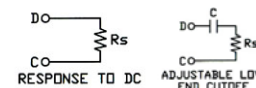


I/O Terminal Pin Functions:

Pin	Function	Pin	Function
A	+15 VDC Input	D	Gain Adj. Output
B	-15 VDC Input	E	Eo (Voltage Out)
C	Gain Return	F	Sig & Pwr Ground

Note: The low end response is adjustable from DC to f_c (-3 dB). The values in Column 2 represent DC attenuation obtained when the DC cutoff facility is used.

Rs = Range Selection Resistor
C = Capacitor in series with Rs
C should be non-polarized.



$$f_c (-3dB) = \frac{1}{2\pi R_s C}$$

Range	TABLE 1	
	Column 1	Column 2
	RS Selection Resistor	DC Rejection
+1	10K	-36 dB
+2	20K	-30 dB
+5	52.3K	-24 dB
+10	110K	-18 dB
+20	243K	-12 dB
+50	1 MEG	-6 dB
+100	OPEN	0 dB

Ordering Information:

SR-107VFR (Preset Range +/- X Rad/Sec²)
Standard Variable Range Accelerometer
Default Preset Range is +/-2 Rad/Sec² unless otherwise specified.

Operational	SR-107VFR
Full Ranges (User Selectable)	± 1.0 To ± 100 Rad/Sec ²
Output Voltage	± 5 Volts into 100K Load
Excitation	± 15 VDC <30 mA
Output Impedance	<100 Ohms
Sensitive Axis Alignment	0.5 Deg
Scale Factor Tolerance	$\pm 1\%$
Scale Factor Temp Coefficient	0.07% / Deg C Max.
Zero Bias	< ± 20 mRad / Sec ² DC Mode < ± 10 mV AC Mode
Null Temp Sensitivity	± 0.4 mV / Deg C
Natural Frequency	20 Hz Min.
Damping	1.0 ± 0.3
Linear Acceleration Sensitivity	< 25 mRad / Sec ² / G
Cross Axis Sensitivity	1% Max.
Output Noise	-60 dB Below F.R. Output
Non-Linearity	$\pm 0.01\%$ F.R.
Hysteresis & Non-Repeatability	$\pm 0.2\%$ F.R.
Threshold & Resolution	0.005% F.R.

Environmental

Temperature, Operating	-40 To +80 Deg C
Temperature, Storage	-40 To +80 Deg C
Vibration Survival (2 To 2,000 Hz)	10 G RMS, 1.0" Disp D.A.
Linear Acceleration Survival	100 G
Shock Survival	500 G, 1 mSec
Ambient Pressure	0 To 5 Atmospheres
Humidity	95% R.H.

Physical

Weight	10 Oz (283 Gm)
Size	1.48 In. Dia. (Excluding Mtg Flange) x 2.5 In. H (3.6 cm Dia. Excluding Mtg Flange x 6.3 cm H)
Case Material	Anodized Aluminum
Sealing	Environmental
Electrical Interface	Solder Pins

