

# 力平衡式/伺服式 角加速度计

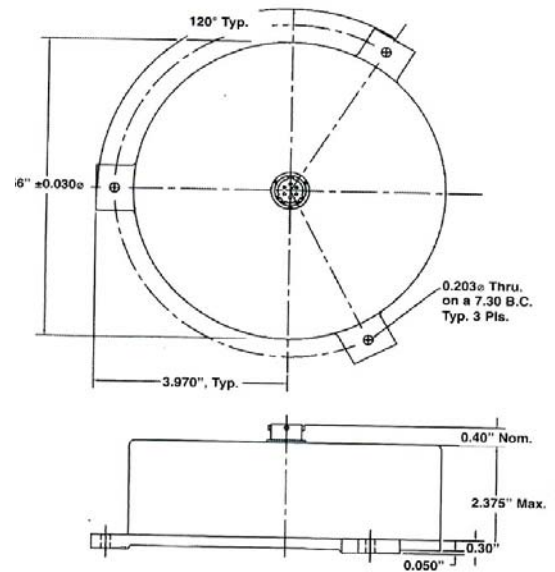
## SR-100FR, SR-200RFR

SR-100FR和SR-200RFR角加速度计专为低电平近直流应用而设计。 这些传感器结合了流体转子概念, 可提供极高的灵敏度和低至 $\pm 0.01$ 弧度/秒<sup>2</sup>的满量程范围。 高性能扭矩器设计可在严峻的冲击和振动环境下保持坚固性和可靠性。

SR-100FR型使用 $\pm 15$ 伏电源供电, 并具有 $\pm 5$ 伏的输出范围, 用于满量程输入。 SR-200RFR型号具有与SR-100FR相同的传感器系统, 但提供的电子设备可在 $+24$ 至 $+32$ 伏特飞机电源下工作, 并提供 $0$ 至 $5$ 伏特输出。 两个单元都是完全独立的, 不需要额外的放大或调节。

这些高灵敏度加速度计的应用包括结构, 平台, 天线和船舶的旋转研究或稳定化。 请向工厂咨询这些传感器的定制版本。

- \* High Sensitivity
- \* High Performance Fluid Rotor Design



### Specifications

	SR-100FR	SR-200RFR
<b>Operational</b>		
Ranges Available	$\pm 0.1$ To $\pm 5$ Rad/Sec <sup>2</sup>	
Output Voltage	$\pm 5$ Volts into 100K Load	0.2 To 4.8 VDC into 100K Load
Excitation	$\pm 15$ VDC <20 mA	+24 To +32 VDC <30 mA
Output Impedance	5,000 Ohms Typical	
Sensitive Axis Alignment	0.5 Deg	
Scale Factor Tolerance	$\pm 1\%$	
Scale Factor Temp Coefficient	0.054% / Deg C	0.07% / Deg C
Zero Bias	2 mRad / Sec <sup>2</sup> Max.	2.5 $\pm 0.01$ VDC
Null Temp Sensitivity	45 $\mu$ Rad/Sec <sup>2</sup> /Deg C	60 $\mu$ Rad/Sec <sup>2</sup> /Deg C
Natural Frequency	10 Hz Min.	
Damping Ratio	0.6 To 1	
Linear Acceleration Sensitivity	10 mRad / Sec <sup>2</sup> / G	
Cross Axis Sensitivity	<0.5%	
Output Noise	2 mRad / Sec <sup>2</sup> RMS	
Non-Linearity	$\pm 0.1\%$ F.R.	
Hysteresis & Non-Repeatability	$\pm 0.1\%$ F.R.	$\pm 0.2\%$ F.R.
Threshold & Resolution	0.001% F.R.	

### Environmental

Temperature, Operating	-40 To +71 Deg C
Temperature, Storage	-40 To +71 Deg C
Vibration Survival (2 To 2,000 Hz)	10 G RMS, 0.5" Disp D.A.
Linear Acceleration Survival	100 G
Shock Survival	100 G, 11 mSec
Ambient Pressure	0 To 5 Atmospheres
Humidity	95% R.H.

### Physical

Weight	3.5 Lbs. Max (1.58 KG)	
Size	6.56 In. Dia. x 2.375 In. H (16.7 cm Dia. x 6.0 cm H)	
Case Material	Anodized Aluminum	
Sealing	Environmental	
Connector	DT07H-12-8PN or Equiv.	PTIH-10-6P or Equiv.
Optional Mating Connector	PT06A-12-8S or Equiv.	PT06A-10-6S or Equiv.

### I/O Connector Pin Functions:

SR-100FR		SR-200RFR	
Pin	Function	Pin	Function
A	Sig & Pwr Return	A	Sig & Pwr Grd
B	Current Output	B	+28V Input
C	Signal Output	C	Test
D	Test -	D	Eo (Voltage Out)
E	-15 VDC	E	Io (Current Out)
F	+15 VDC	F	Io (Current Ret)
G	Test +		
H	Spare		

### Ordering Information:

SR-100FR (+/- X Rad/Sec<sup>2</sup>) **M**  
 SR-200RFR (+/- X Rad/Sec<sup>2</sup>) **M**  
 Std Accelerometer w/Connector  
 Range +/- X Rad/Sec<sup>2</sup> (Required)  
 Mating Connector Supplied (Optional)

