

力平衡式/伺服式 角加速度计

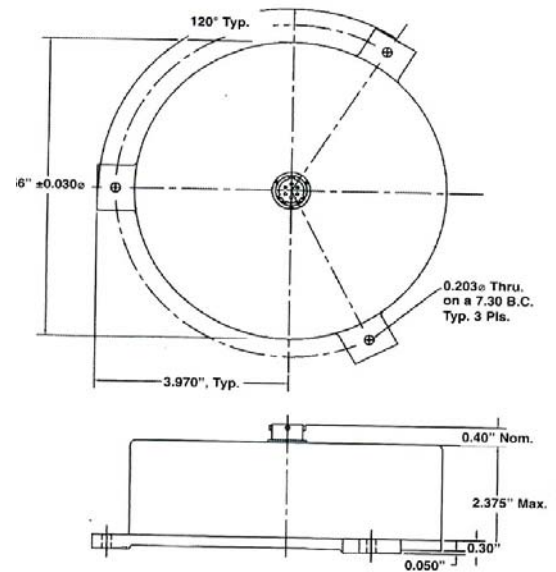
SR-100FR, SR-200RFR

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 ± 0.01 弧度/秒²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 ± 15 伏电源供电, 并具有 ± 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 |
|---------------------------------|---|--------------------------------------|
| Operational | | |
| Ranges Available | ± 0.1 To ± 5 Rad/Sec ² | |
| Output Voltage | ± 5 Volts into 100K Load | 0.2 To 4.8 VDC into 100K Load |
| Excitation | ± 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 ² Max. | 2.5 ± 0.01 VDC |
| Null Temp Sensitivity | 45 μ Rad/Sec ² /Deg C | 60 μ Rad/Sec ² /Deg C |
| Natural Frequency | 10 Hz Min. | |
| Damping Ratio | 0.6 To 1 | |
| Linear Acceleration Sensitivity | 10 mRad / Sec ² / G | |
| Cross Axis Sensitivity | <0.5% | |
| Output Noise | 2 mRad / Sec ² 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/Sec²) **M**
 SR-200RFR (+/- X Rad/Sec²) **M**
 Std Accelerometer w/Connector
 Range +/- X Rad/Sec² (Required)
 Mating Connector Supplied (Optional)

