

Angular Rate Sensor Calibration System SCS-AV

- Calibration Range $\pm 10\text{deg/s} \sim \pm 15000\text{deg/s}$;
- The Max. angular acceleration 500deg/s^2 ;
- The Max UUT mass 800gram;
- The standard angular refers to Encoder;
- Suitable to MEMS or any voltage signal Gyro Sensors;
- Max. 30V, 2000mA High Precision Power for UUT;
- 6-1/2 Bit Multimeter as signal acquisition device;
- Input & Output & Sensor Consumption can be measured;
- Related Expanded Uncertainty ($K=2$) $< 0.5\%$.

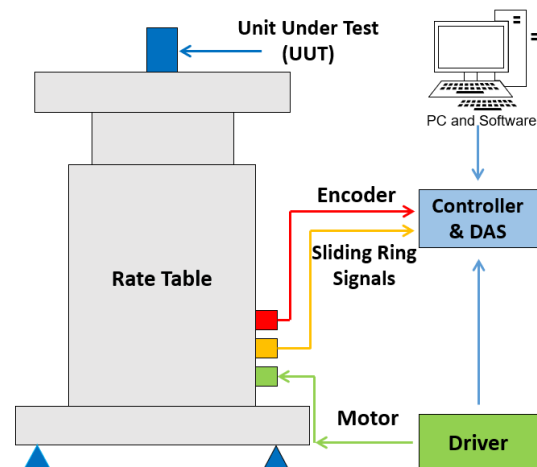


The angular rate sensor calibration system is mainly composed of a rate turntable and a data acquisition device. The rate turntable is mainly composed of two parts: a mechanical platform and a measurement and control system. The calibration system has the function of position and speed movement, and provides positioning and speed reference for the sensor under test. The system realizes static testing and calibration of large-range inertial components. The system is automatically controlled by software, the calibration report is automatically generated, and the report template can be customized according to requirements.

Technical Specification (22°C \pm 2°C, 30%RH~75%RH):

| Name | Unit | Value |
|----------------------|--|---------------------|
| Calibration Range | deg/s | $\pm 10 \sim 15000$ |
| Payload | grams | 800 |
| Calibration Result | Sensitivity, Non-Linearity, Offset, Full Scale Output, Resistance... | |
| UUT Excitation | V | 0-30 |
| UUT Current | mA | 0-2000 |
| DAS | / | Multimeter |
| Signal Input | V | > 24 |
| Rate Table Acc. | °/s^2 | 500 |
| Rate Table Stability | % | ± 0.01 |
| Rate Table Flatness | mm | ± 0.02 |
| Rate Table Runout | mm | ± 0.02 |
| Position Resolution | " | ± 0.36 |
| Operation Temp. | °C | 22 \pm 2 |
| Operation Humidity | %RH | 30~75 |
| Rate Table Weight | kg | ≈ 60 |
| Power | VAC | 100~250 |

System Diagram:



Procedure:

1. Mounting the UUT, connecting sensor with sliding ring connector on the table;
2. Setup sensor information, Excitation, Calibration Range, etc. and Warm up;
3. Click Run by Software, and wait until all shocks had been done and report generated;
4. Remove UUT for the Next one or Shunt down.