Inertial sensors

Vertical Gyroscope, RS422, Roll ± 180°, Pitch ± 90°

Model CS-VG-05

Vertical gyroscope measuring roll (± 180 °) and pitch (± 90 °) with <0.8 ° static accuracy, plus gyroscope and accelerometer data over RS422 at 200Hz.



Range	Accuracy
± 180 °	<0.8 °
Output	**Supply voltage**
RS422	8–30VDC

Features

- High-precision temperature compensation
- Dynamic angular accuracy <2.5 ° (RMS)
- 8–30VDC supply, 115200bps
- Size 72 × 45 × 20mm
- Low cost, small size

Applications

UAV motion tilt measurement, Ship motion tilt measurement, Vehicle platform tilt measurement

Specifications

Electrical

Supply voltage	8–30VDC
Supply current	<50mA
Output type	RS422
Baud rate	115200bps
Data update	200Hz

Performance

Measuring range (roll angle)	± 180 °
Measuring range (pitch angle)	± 90 °
Angular accuracy (roll/pitch, static)	<0.8 °
Angular accuracy (roll/pitch, dynamic)	<2.5 ° (RMS)
Measuring range (gyroscope)	± 300 ° / s

Measuring range (accelerometer)	± 5 g
Nonlinear (gyroscope)	<0.15% FS
Nonlinear (accelerometer)	<0.5% FS
Zero (gyroscope)	<0.15 ° / s
Zero (accelerometer)	<0.006 g
Zero drift (gyroscope)	<0.15 ° / s
Zero drift (accelerometer)	<0.006 g
Bandwidth (gyroscope)	50 Hz
Bandwidth (accelerometer)	40 Hz
Cross-axis	<0.1%
Start time	<2s

Environmental

Temperature compensation	-4 °C ~ + 70 °C
Operating temperature	-40 °C ~ + 70 °C
Storage temperature	-45 °C ~ + 100 °C

Physical

Weight	<80g
Size	72 × 45 × 20mm

Ordering and support

Pricing, samples, lead time and custom versions: dwinsales@163.com, +86 181 0280 8901.

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