

SSG100 Attitude & Heading Reference System



Vigor Technology

SSG100 Attitude & Heading Reference System

Features

- Lowest cost, high performance
- Built in tri-axis accelerometer, tri-axis gyroscope & magnetometer
- Dynamic heading accuracy $\pm 2.0^\circ$
- Dynamic attitude accuracy $\pm 1.0^\circ$
- Refresh rate 200Hz
- Weight $\leq 10g$
- Size 25.4x16x10mm



Applications

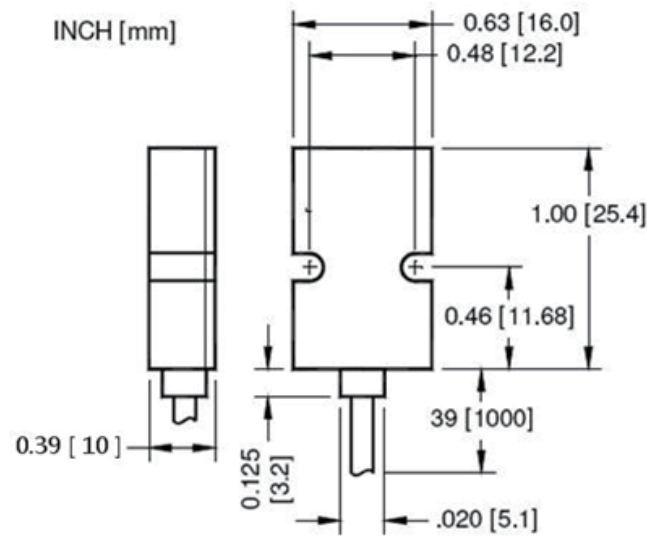
Engineering machinery, Rail transit, Automotive, Robot, Weapons platform, Photoelectric, UAV, Instrument

Performances

Table 1 Specifications

Range	Roll: $\pm 180^\circ$, Pitch: $\pm 90^\circ$, Heading: 0~360°
Resolution	0.1°
Heading accuracy	$\pm 2.0^\circ$, static
Heading repeatability	$\pm 0.7^\circ$, dynamic
Attitude accuracy	$\pm 0.5^\circ$, static
Attitude repeatability	$\pm 1.0^\circ$, dynamic
Refresh data	10Hz~200Hz (Adjustable)
Angular rate range	Range: $\pm 125/\pm 250/\pm 500/\pm 1000/\pm 2000^\circ/s$ (optional) Resolution: 16 bytes Band: 500Hz Three axis Noise density: 0.014°/s/√Hz
Acceleration range	Range: $\pm 2/\pm 4/\pm 8/\pm 16g$ (optional) Resolution: 12 bytes Band: 500Hz Three axis Noise density: 150μg/√Hz
Magnetic field	$\pm 1 \sim \pm 8$ Guass(optional) Resolution: 12 bytes Band: 160 Hz (max.) Noise density: 2mguass Three axis
Power supply	+5VDC $\pm 10\%$ +3.3VDC(stabilivolt)
Power consumption	$\leq 10mA@RS232$, +5VDC $\leq 15mA@RS485$, +5VDC $\leq 20mA@CAN$, +5VDC
Output interface	RS232, RS485, CAN
Output data	Roll & pitch angle data Three-axis acceleration (corrected) Three-axis angular rate (corrected) Three-axis magnetic field intensity (corrected)
Operation temperature range	-40~85°C
Storage temperature range	-40~85°C
MTBF	≥ 100000 h/times
Shock	2000g@1ms,three-axis, half- sine
Protection	IP65
Housing	Anodized Aluminum
Cable	28# AWG , PVC Insulated Leads, Braided Shield, PU Jacket
Dimensions	25.4x16x10mm
Weight	10g (max.)

Dimensions (mm)



Wiring

Table 2 Cable definition

Wire Color	RS232	RS485	CAN
Red	Power +	Power +	Power +
Black	Power GND	Power GND	Power GND
Green	Signal GND	Signal GND	Signal GND
Blue	TXD	A	CANH
White	RXD	B	CANL

Ordering

Table 3 Ordering product list

Product type	Description
SST100-G0	With RS232 output
SST100-G1	With RS485 output
SST100-G3	With CAN2.0 output

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