









CRS07-11S - 13S Unpackaged

Packaged

A robust and affordable mass-produced miniature gyroscope for applications in which space is critical.

Angular rate sensors are used wherever rate of turn sensing is required without a fi xed point of reference. The sensor will output a DC voltage proportional to the rate of turn and input voltage.

High performance motion sensing even under severe shock and vibration.

Whatever your application, the unique silicon ring technology, coupled with closed loop electronics, gives advanced and stable performance over time and temperature, overcoming the mount sensitivity problems experienced with simple beam or tuning fork based sensors.

FEATURES

- Ultra-small size
- Excellent performance over temperature
- Repeatable drift characteristic
- High shock and vibration operation
- Available packed or unpackaged
- High rate range option unpackaged only

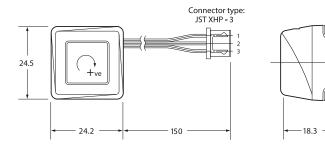




CRS07-02S

Packaged

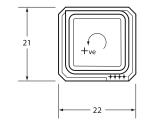
All dimensions in millimetres

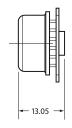


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Unpackaged

All dimensions in millimetres





Typical Data	CRS07-02S	CRS07-11S	CRS07-13S	Pin Connections
Angular Rate Range	±100°/s	±573°/s	±100°/s	1 +5V
Output	Analogue voltage (ratiometric)			2 OV
Scale Factor				3 Rate Output
Nominal	20mV/º/s	3.49mV/º/s	20mV/º/s	4 Not Used
Variation over temperature range		< ±5%		
Non-linearity	$< \pm 0.5\%$ of full scale			
Bias				
Setting tolerance	< ±3°/s	< ±30°/s	< ±3°/s	
Variation over temperature range	< ±3/s	< ±30°/s	< ±3°/s	
Ratiometric error		< ±1°/s		Silicon Sensing Systems Limited
Drift vs time	$< \pm 55^{\circ}$ s in any 30s period (after start-up time)			Clittaford Road, Southway, Plymouth, Devon PL6 6DE United Kingdom
g sensitivity	< ±0.1°/s/g on any axis			
Bandwidth	10Hz (-3dB)	> 30Hz (-3dB)	> 10Hz (-3dB)	T
Quiescent Noise	< 1mV rms			T +44 (0)1752 723330 F +44 (0)1752 723331
Environment				E sales@siliconsensing.com
Temperature	-40°C to +85°C	-20°C to +60°C	-40°C to +85°C	W siliconsensing.com
Linear acceleration	< 100g			Silicon Sensing Systems Japan Lin
Shock	200g (1ms, ½ sine)			1-10 Fuso-Cho, Amagasaki,
Vibration	2g rms (20Hz to 2kHz, random)			Hyogo 6600891, Japan
Cross-axis sensitivity	< 5%			T +81 (0)6 6489 5868
Mass	< 10 gram			F +81 (0)6 6489 5919
Electrical				E sssj@spp.co.jp W siliconsensing.com
S upply voltage		Speci & ation subject to change without noti		
Supply current	< 35mA (steady state)			© Copyright 2013
Noise and ripp l e	< 15mV rms (DC to 100Hz)			Silicon Sensing Systems Limited All rights reserved. Printed in England 07/13
Start-up time	< 0.2s			CRS07-00-0100-131 Rev 2
RoHS Compliant	Yes			DCR No. 710005023

1	+5V	
2	OV	
3	Rate Output	
4	Not Used	

s Japan Limited

without notice.

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The information provided herein is to the best of our knowledge true and accurate, it is provided for guidance only. All specifications are subject to change without prior notification. Althen – Your expert partner in Sensors & Controls | althensensors.com

Althen stands for pioneering measurement and custom sensor solutions. In addition we offer services such as calibration, design & engineering, training and renting of measurement equipment.

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