振動陀螺儀

MODEL: ENV-05F-03

- 可直接固定在 PCB 上
- 高度祇有 23m/m
- 輔助 GPS 導航
- 低價位角速度量測

This angular velocity sensor employs the principle that a Coriolis force results if an angular velocity is applied to a vibrating object. Murata's unique ceramic bimorph vibrating unit is used as the sensor element unit, thereby enabling piezoelectric ceramics to be used for both excitation and detection. The use of this unit simplifies equipment structure and circuit configuration, thus making it possible to provide outstanding performance. This sensor can be used for positional control and posture control of a moving object requiring high-precision measurements.

Features

- On - Board mount type for easy PCB installation
- Low height of 23mm capable of being installed in a one DIN size box

Applications

- Dead reckoning function in car navigation systems
- Satellite antenna positioning for moving object
- Movement memory for accident recorders
- Other objects requiring angular rate detection with high precision

育新科技股份有限公司
ETEK NAVIGATION, INC.
220 台北縣板橋市溪城路 105 號 10 樓
TEL: 886-2-26860199 FAX: 886-2-26866159
E-Mail: etek@etek.com.tw
WEB SITE: http://www.etek.com.tw

Specifications

Characteristic	Symbol	Condition	MIN	STD	MAX	Unit
Supply voltage	Vcc		+4.5	+5.0	+5.5	VDC
Current consumption	Icc	at Vcc=5.0VDC	-	-	15	mA
Max. angular velocity	Omax		-1/3 PI (-60)	-	+1/3 PI (+60)	rad/s (deg/s)
Output	Vo	angular velocity = 0 at -30~80°C	2.100	2.500	2.900	VDC
Scale factor	Sv	at -10~60°C at -30~80°C	23.0 21.7	25.0 25.0	27.0 28.3	mV/deg/s
Asymmetry CW & CCW			-	-	3	deg/s
Temp. coefficient Scale factor		reference : Ta at -10~60°C at -30~80°C	 - -	 - -	 ±5 ±10	%FS
Drift		at -30~80°C	-	-	9	deg/s
Start up Drift		Measure Vo after 5s	-	-	±1	deg/s/ 10min
Noise level		10kHz noise	-	-	10	mVp-p
Linearity		in the Omax	-	-	0.5	%FS
Response		Phase delay : 90deg	-	10	-	Hz
Dependence on Supply voltage Output			0.8	-	1.2	
Scale factor			0.8	-	1.2	
Operating temp. range	Topr		-30	-	80	°C
Storage temp. range	Tstg		-40	-	85	°C
Weight			-	-	20	g
Dimension			11.5(D) x 19.6(W) x 23.2(H) mm			

(This specification is subject to change without prior notice)

育新科技股份有限公司
ETEK NAVIGATION, INC.
220 台北縣板橋市溪城路 105 號 10 樓
TEL: 886-2-26860199 FAX: 886-2-26866159
E-Mail: etek@etek.com.tw
WEB SITE: http://www.etek.com.tw