

# SA40111 ñ Ultra-Dual Signal Conditioner

The SA40111 Ultra-Dual is a dual axis signal conditioner that delivers high accuracy RS232 (8 bit) and analog (Vdc) outputs. Designed to interface perfectly with Spectronis full line of single and dual axis electrolytic tilt sensors, the SA40111 Ultra-Dual is capable of providing data over widely varied angular ranges. On-board linearity correction further enhances sensor performance, to achieve unparalleled measurement accuracy. The RS232 output is easily read via the serial port of a PC or by direct interface to a microcontroller, while the optional analog output provides interfacing flexibility for most other applications. On-board temperature compensation is also available. Consult factory for details.

## General Specifications

Input voltage .....+3.4 to +12Vdc  
 Input current ..... 15mA (8mA in sleep mode)  
 Outputs: ñ RS232 .....16000 counts  
           ñ Analog ..... 0 to +3.0Vdc  
 Response time ..... 25 mSec  
 Null offset adjustment ..... programmable  
 Operating Temp range .... -20 to +70C° Temp.  
 sensor resolution . 0.1 C°

## RS232 Communication Protocol

Baud rate ..... 38400  
 Data width ..... 8 Bits  
 Stop bit ..... 1  
 Parity ..... None

## Input/Output Connections

### RS232 (JP3)

Circuit Board Connector - JP3	Function	Corresponding PC Serial port connection
Pin#		Pin#
1	Input Voltage	N/A
2	Ground (common)	5
3	Output Data	2
4	Input Command	3

\* A DB9 type connector is required to connect to the PC serial port (not supplied)

### Analog (JP1, optional)

Circuit Board Connector - JP1	Function
Pin#	
10	Input Voltage
4	X axis output
1	Ground (common)
2	Y axis output

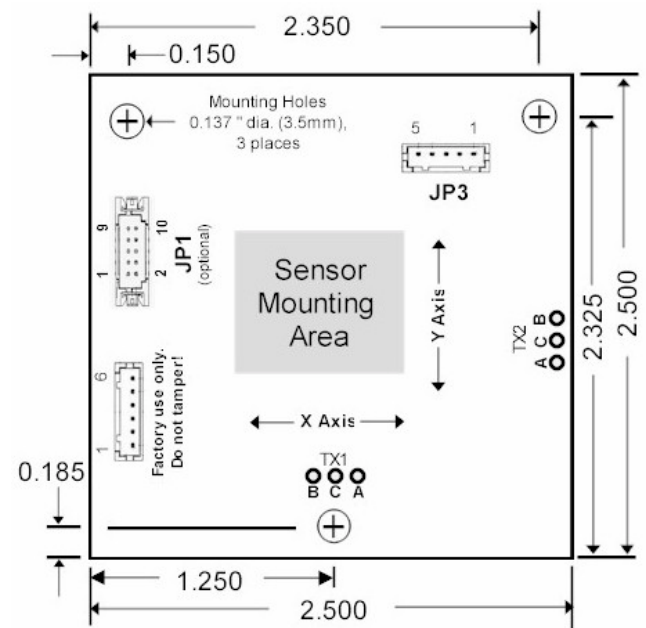
### Sensor Connections

Circuit Board Connection Points		Function
TX1 - X axis	TX2 - Y axis	
A	A	Excitation (Input 1)
C	C	Output (center)
B	B	Excitation (Input 2)



\*Shown with two SH Series Ceramic Sensors installed (not included).

## Dimensions (inches)



## Mating Connector

Manufacturer: Hirose  
 Pins: DF13-2630SCFA  
 Socket: JP1 = DF13-10DS-1.25SC  
           JP3 = DF13-5S-1.25SC

## Ordering Information

Consult factory for ordering details!

駿融企業有限公司 JIN ZON ENTERPRISE CO., LTD.  
 104 台北市長安東路二段 171 號 4 樓之 3  
 4F-3, No. 171, Sec. 2, Chang An E. Rd., Taipei, Taiwan, R. O. C.  
 TEL: 886-2-27111093~5      FAX: 886-2-27310902  
 E-mail: [jinzon@ms2.hinet.net](mailto:jinzon@ms2.hinet.net)      Http:// [www.jinzon.com.tw/](http://www.jinzon.com.tw/)