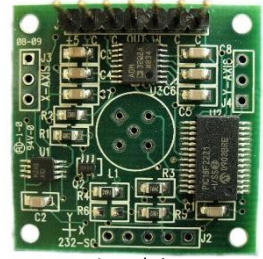




# 1-6200-006

## RS232 Mini Signal Conditioner Board



Actual size

### Specifications

Power supply voltage	3 to 5 VDC (regulated)
Power supply current	16mA @ 5VDC 11mA @3.3VDC
Operating temp range (board only)	-40°C to +85°C
Storage temp range (board only)	-55°C to 0 +100°C
Angle range	0-100% of sensor range (16 bit, 65535 counts max)
Board dimensions	1.25" x 1.25" or 32mm x 32mm square
Mounting hole and spacing	0.089" dia. and 1.05" (center to center)
Temp. sensor range	-40°C to +125°C (10 bit resolution)

### Signal Description J1

Pin #	Signal name	Direction	Description
1	Vcc	Input	Supply voltage input: + 3 to + 5 vdc regulated
2	GND	-	Ground - The reference for the digital signals and the supply voltage
3	GND	-	Ground - The reference for the digital signals and the supply voltage
4	TX	Output	RS232 transmit output Response time: 25 msec (max) after command for complete ascii data string output
5	RX	Input	RS232 transmit input
6	GND	-	Ground - The reference for the digital signals and the supply voltage
7	GND	-	Ground - The reference for the digital signals and the supply voltage

### RS232 Communications Port

Baud rate	Data bits	Parity	Stop bits
9600	8	None	1

### Command Format

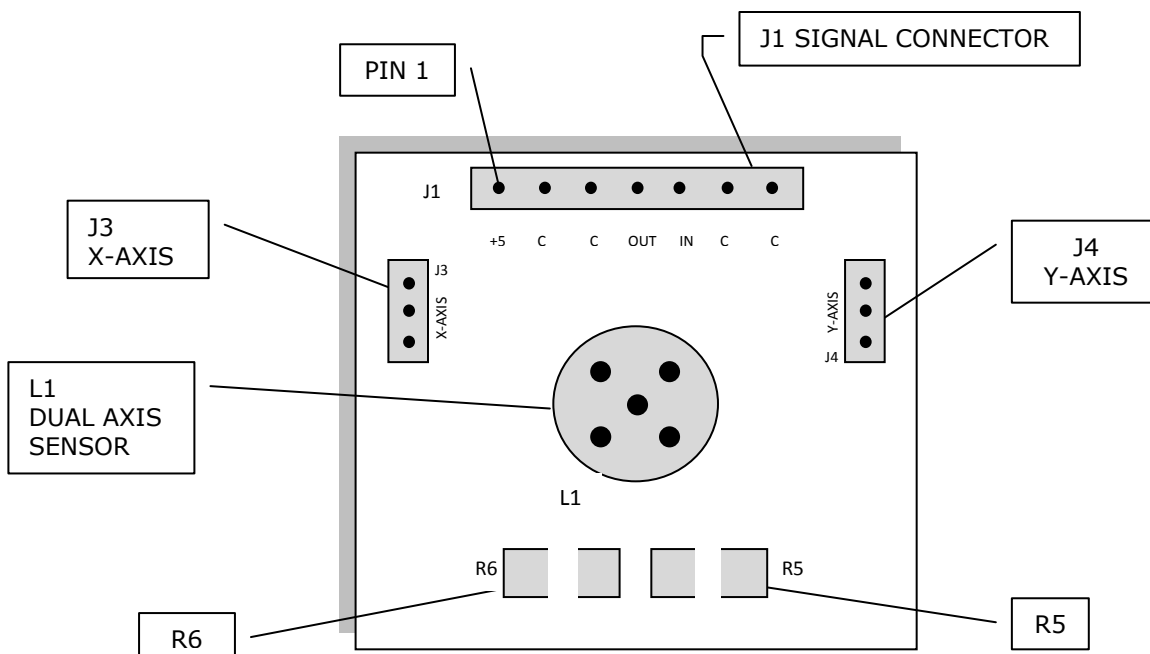
Command (ascii - not case sensitive)	Response (ascii)
'X'	X axis value (16 bit -65535 max)
'Y'	y axis value (16 bit -65535 max)
'T'	Temperature value (10 bit - 1023 max)
'S'	Output X axis, Y axis, Temperature at set intervals
'R'	Reset the 'S' command
'1' TO '5'	Set delay for 'S' command, 1 to 5 seconds (default = 1 second)

NOTE: To convert the 10 bit data returned from the on board MCP9700 use the following formulas,

MCP9700 output voltage = 10 bit value / 1023 \* supply voltage

Temperature C = (MCP9700 output voltage - 0.5) / 0.010

**SPI signal conditioner board assembly**



**Sensor Configuration**

Sensor Configuration	Description
Dual Axis Sensor mounted on board (standard configuration)	<ul style="list-style-type: none"> <li>- Dual Axis is mounted in location L1</li> <li>- R5 is 10.0K ohms</li> <li>- R6 is not installed</li> </ul>
Single Axis sensors mounted off board	<ul style="list-style-type: none"> <li>- Single axis sensors are connected to J3 (x-axis) and J4 (y-axis)</li> <li>- No sensor is installed in L1</li> <li>- R5 is not installed</li> <li>- R6 is 1.0K ohms</li> </ul> <p>Note: if R5 is not removed then R6 must be less than 100 ohms</p>

NOTE: J2 is for factory use only.

**Interface to PC**

To PC (DB9)		6200-006	
Pin2	RX	Pin 4	TX
Pin 3	TX	Pin 5	RX
Pin 5	GND	Pin 3	GND