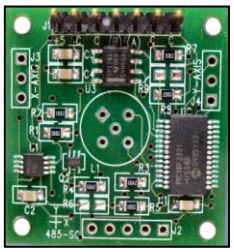
1-6200-008

RS485 Mini Signal Conditioner Board



Actual size

Specifications

Power supply voltage	3 to 5 VDC (regulated)
Power supply current	9mA @ 5VDC 6mA @3.3VDC
Operating temp range (board only)	-40°C to +85°C
Storage temp range (board only)	-55°C to0 +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

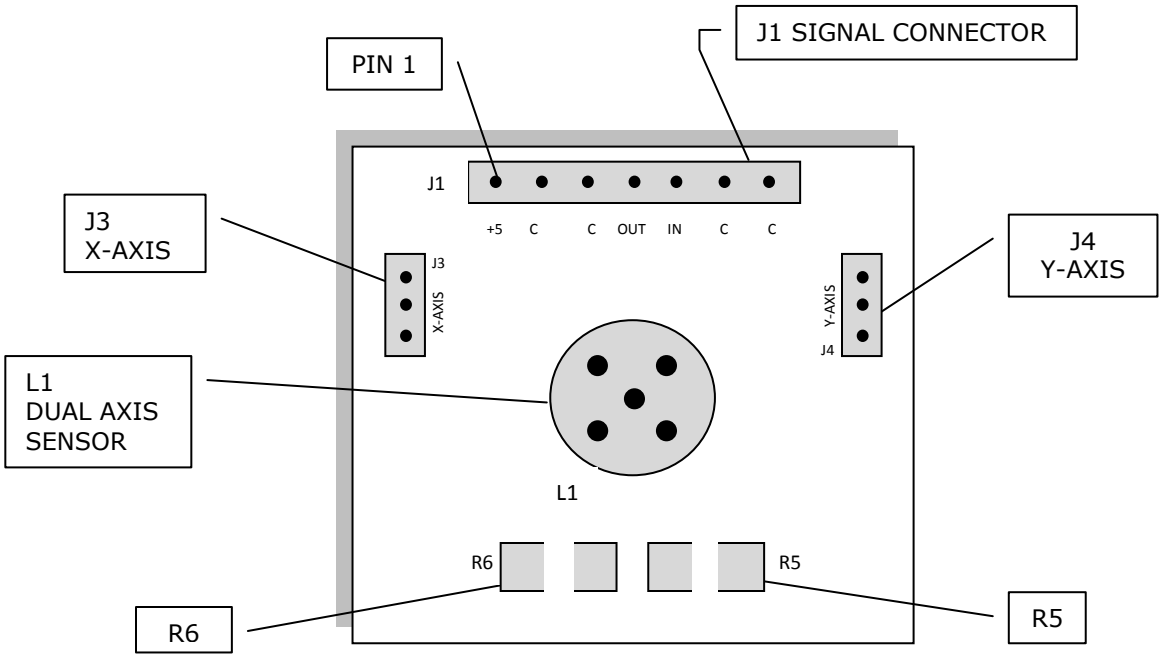
Pin #	Signal name	Direction	Description
1	Vcc	Input	Supply voltage input: + 3 to + 5 vdc regulated
2	GND	-	Ground – The reference for the digital signals and the supply voltage
3	GND	-	Ground – The reference for the digital signals and the supply voltage
4	TX	Bi-directional	RS485 - B
5	RX	Bi-directional	RS485 - A
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

Command Format

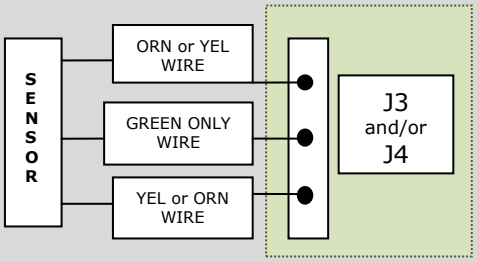
XXYY# (= start of string, XX = address, YY = command, # = end of string
Commands for X and Y axis, temperature
Additional commands to change address (1 to 99), baud rate (1200 to 38400), and enter and save a user ID
Refer to operating manual for all RS485 commands

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 (standardd configuration)	- Dual Axis is mounted in location L1 - R5 is 10.0K ohms - R6 is not installed
Single Axis sensors mounted off board	- Single axis sensors are connected to J3 (x-axis) and J4 (y-axis) - No sensor is installed in L1 - R5 is not installed - R6 is 1.0K ohms Note: if R5 is not removed then R6 must be less than 100 ohms 

NOTE: J2 is for factory use only.