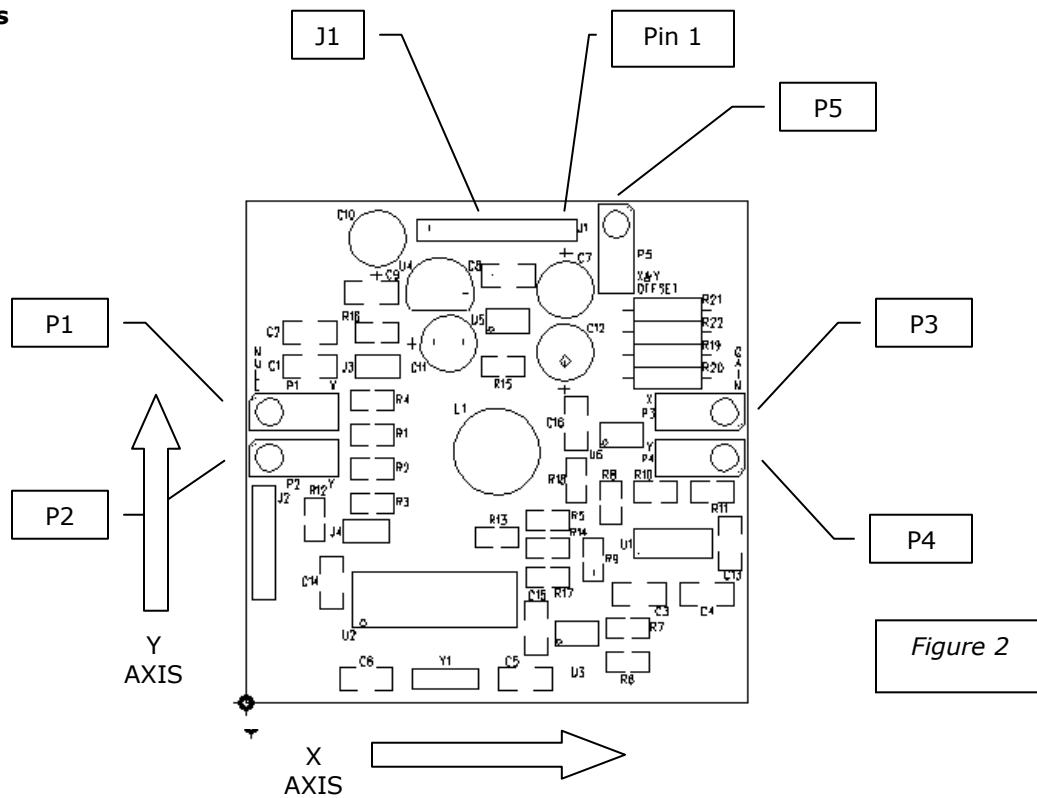
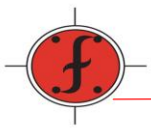


3. Connections



Power and Signal connections (see figure 2):

- J1 - 1 +7 to +16 Volts DC (see selected analog range for minimum required voltage).
- J1 - 2 Common.
- J1 - 3 N/C
- J1 - 4 X-axis analog output (for selected analog range).
- J1 - 5 Y-axis analog output (for selected analog range).
- J1 - 6 X-axis pulse width modulated output.
- J1 - 7 Y-axis pulse width modulated output.



4. Mounting and Adjustments

The signal conditioner board has 4 mounting holes. The spacing is 1.8 inches in each direction. If the sensor is mounted directly to the board, it is necessary to mount the board horizontally and close to gravity. If the sensor is mounted remotely, the board may be mounted in any manner. Once the board and sensor installation is complete, it may be necessary to make minor adjustments to the output. Below is a description of the adjustments available.

Sensor trim adjustments (see Figure 2):

- P1 – X null
- P2 – Y null
- P3 – X gain
- P4 – Y gain
- P5 – Analog dac offset

P1 and P2 are offset adjustments for the X and Y analog and digital outputs when the board is in the null or non-tilted position.

P3 and P4 are gain adjustments for the X and Y analog and digital outputs when the board is tilted to the specified angle.

P5 * is the analog dac offset for the X and Y outputs. This adjustment is made in the null position and used to set the analog midpoint when the pulse width modulated output is at 50 percent duty cycle.

Note: The X-axis is used for single axis sensors.

* Note: P5 is factory set and should not need adjustment.

5. Calibration

Note: For single axis sensors, P2 and P4 do not need to be adjusted.

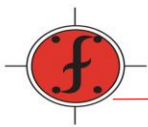
Adjust P1 and P2 for 50% duty cycle on the digital X and Y outputs with the sensor in the null or non-tilted position.

Adjust P5 * to set the analog X and Y voltage outputs close to the midpoint of the selected voltage range.

P1 and P2 may need minor readjustments to set the analog X and Y voltage outputs to the midpoint of the selected voltage range. This step may be skipped if the digital output is being used.

Adjust P3 and P4 for the selected X and Y analog voltage range when the sensor is tilted to the selected angular range. If the digital output is being used, adjust P3 and P4 for the X and Y outputs to 10 and 90 percent of the selected angular range.

* Note: P5 is factory set and should not need adjustment.



6. Specifications

Electrical

Power supply voltage (range).....+7 to +16 VDC
Note: minimum supply voltage depends on requested analog output range
Power supply current (typical).....11.0 mA @ 9VDC

Analog output voltage (max).....Power supply voltage minus 2 Volts
Analog output load current (max).....1 mA
Analog output resolution (0 to 5 volts output).....1.5 mV

Digital output voltage (typical).....0 to 5 Volts
Digital output load current (max).....1 mA
Digital output resolution (percent).....0.1%
(time).....2.0 usec
Digital output frequency.....488 Hz

Environmental

Temperature range
Operating*.....-40 to +85 ° C
Storage*.....-55 to +85 ° C

Performance Specifications*

*Refer to the individual specification of the installed sensor.

