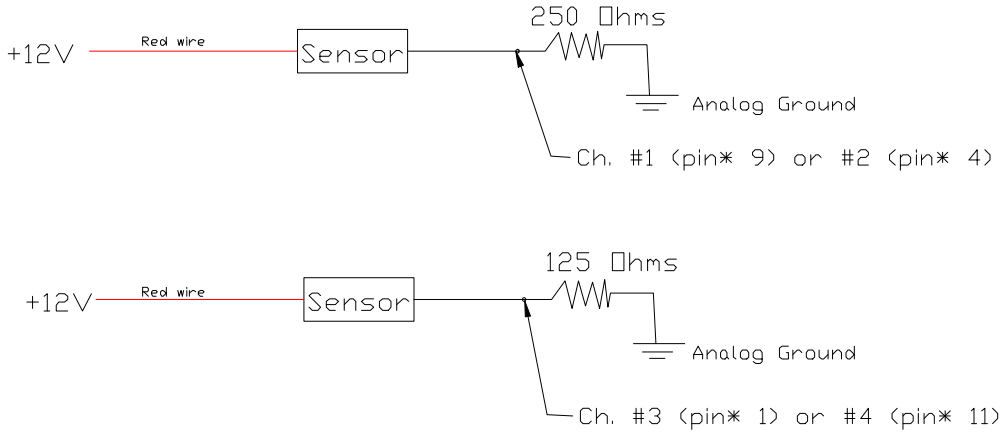
AMASS Data Technologies Inc

APPLICATION NOTE: Connection of 4-20mA sensors, such as the KPSI Pressure Sensors, to PDAS-II data logger.

Begin by connecting the sensor to a power supply in either of the two configurations shown below.

NOTE: When connecting a 4-20 mA sensor to the PDAS-II be sure to use the **proper precision resistor** in series with the sensor in the current loop as follows:

Case 1: Channel #1 and #2 (0-5V) use 250 **Ω**
Case 2: Channel #3 and #4 (0-2.5V) use 125 **Ω**



*Pin numbers refer to the 28-pin AMP CPC connector that is present on all PDAS-II units for the inputs and outputs of the Analog Input System (AIS). For units equipped with the **TS-AIS/PNL** or **TS-AIS/DIN** terminal strip options, simply make the connections shown in the schematic above to the proper terminal.

Now configure the logger using the menu system. This is done from *System Setup* as shown in section *Analog Sensor Setup* of the User Reference Manual:

---SELECT CONVERSION MODE---
1 Volts (0-5.000)
2 Volts (0-2.500)
3 Custom Equation
4 4-20ma Offset Correction
5 Temperature AD34
6 Differential 1-2 +/-5V
7 Differential 1-2 Custom
8 Differential 3-4 +/-2.5V
9 Differential 3-4 Custom

4<CR>
Select A/D Channel (1 – 4)
[Enter 1, 2, 3 or 4]

The set-up is complete! The 4mA bias has been removed. The analog data will henceforth be converted such that the output range of the sensor is from 0.5V (zero counts) to 2.5V (FS) or 1V (zero counts) to 5V (FS). To monitor this sensor select the proper channel from the list of *Internal Sensors* as described in section *Internal (Analog) Sensors* of the User Reference Manual.