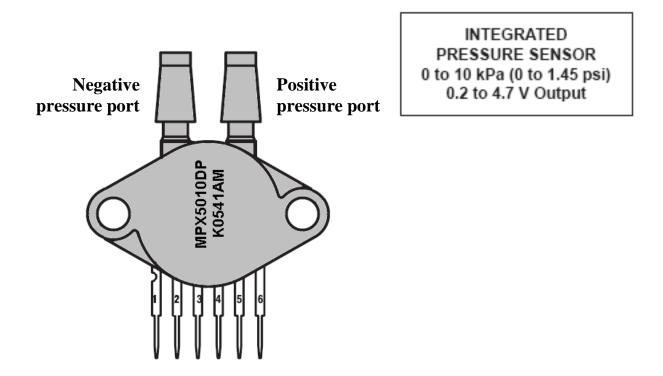# In-Class Exercise: Pressure Sensor Alarms

The virtual interfaces developed in class for the Motorola pressure sensor simply measure the output voltage from the sensor. In a real application, it is the converted pressure and not the voltage itself that we are ultimately interested in. We will see later that MAX (actually, NI-DAQmx) has the ability to automatically convert measured values into engineering units by use of custom scales. At this point, however, we will consider "manually" converting measured voltages to pressure.

Using the transfer function supplied on the datasheet, or the "mapping data" repeated below, modify the previous software-paced VI to additionally convert the measured voltages from the sensor to **pressure in psi**. Also, include two LED's that warn if the pressure goes above 95% full scale of the sensor, or below 5% of the full scale.

Negative pressure port   **Positive pressure port**

INTEGRATED
PRESSURE SENSOR
0 to 10 kPa (0 to 1.45 psi)
0.2 to 4.7 V Output

MPX5010DP
K0541AM