GPSN-100 Gas Pressure Sensor

Overview

The Gas Pressure Sensor can be used to measure pressure within a range of 20 to 250 kPa.

Photo

Specifications:

Specifications	
Pressure Range:	20 - 250kPa
Voltage output	0.2- 4.8

Operating Instructions:

Operating the GPSN-100 Gas Pressure Sensor

For General Readings:

1. Plug the IX-MYDAQ into the NI mydaq. Plug the mini din 7 end of the GPSN-100 into CH 1 or CH 2 of the IX-MYDAQ.
2. Plug in the USB cable and set the input range of the channel being used to +/-5V.
3. Record the output voltage of the GPSN-100.
4. The output voltage of the GPSN-100 can be translated into pressure in kPa by utilizing this formula, P = (50*Vout + 10), where P is pressure in kPa, Vs is 5V, and Vout is the voltage measured in step 3.

For More Accurate Readings:

1. Ensure there is nothing plugged into the NI myDAQ and plug in the USB to power the device up.
2. Take a multimeter and switch it to DC voltage.
3. Take the red probe of the multimeter and place it in the hole all the way to the right marked 5V. Take the black probe and place it in the hole labeled AGND, the one that is the 6th hole from the left. Ensure both probes are touching the pins enough to make a reading, but not enough to bend the pins.
4. Record the voltage shown on the meter.
5. Unplug the USB cable and plug in the IX-MYDAQ.
6. Plug the mini din 7 end of the GPSN-100 into CH 1 or CH 2 of the IX-MYDAQ and plug the USB cable back in. Set the input range of the channel being used to +/-5V.
7. Attach the desired pressure source and record the voltage output of the GPSN-100.
8. The output voltage of the GPSN-100 can be translated into pressure in kPa by utilizing this formula, P = ((Vout/Vs)+0.04)/(0.004), where P is pressure in kPa, Vs is the voltage that was measured in step 4, and Vout is the voltage measured in step 7.

Accessories

FT-220: Bulb used for human grip experiments.

BP-220: Blood pressure cuff