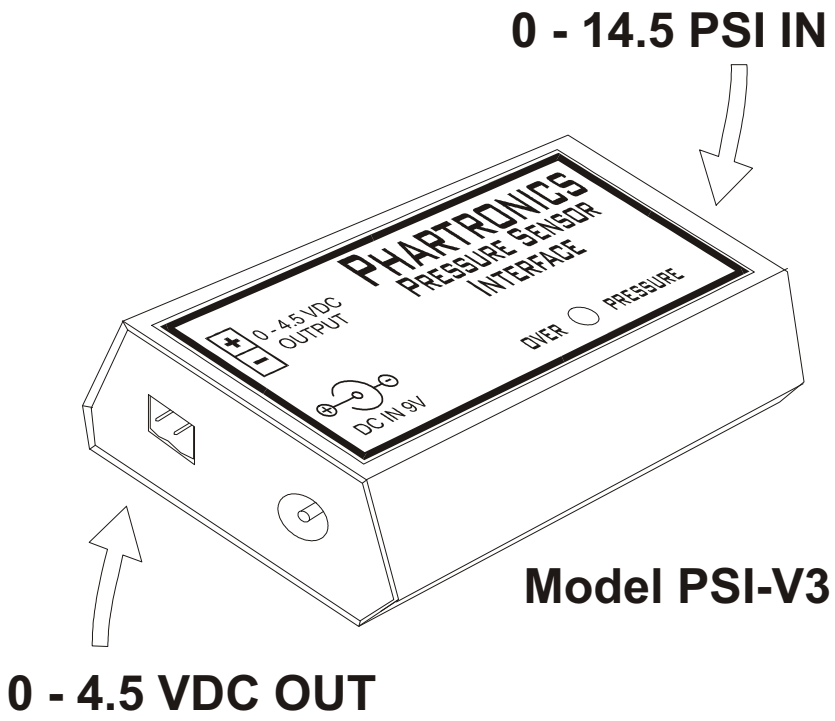
PHARTRONICS
PRESSURE SENSOR INTERFACE

Thank you - for purchasing the Phartronics Pressure Sensor Interface and:

Congratulations – you no longer have to worry about your line pressure again.



(Warning) – Do not apply more than 20 lbs/sqr in. to the pressure sensor port as the sensor may be damaged. See'Electro-Mechanical Operation' section of the manual for further details.

Electro-Mechanical Operation

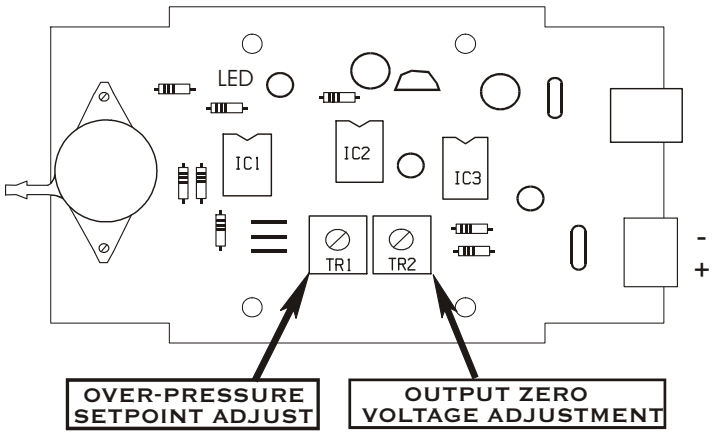
A physical outline of the sensor is shown below. Adjustable pots TR1 and TR2 are illustrated for your convenience. Both have been pre-set for proper operation and further adjustment should be unnecessary.

TR1 sets the trip-point for the red 'Over-Pressure' alarm LED on the front of the unit. TR1 has been pre-set to light the red LED when the system pressure exceeds 15 lbs/sqr-inch. This increase in pressure to the 15 lbs/sqr-inch level could occur while attempting to quickly purge or pressurize a transmission line. Since the LED will light at a system pressure of 15 lbs/sqr-inch, this should be ample warning to either reduce system pressure or temporarily disconnect the sensor from the line while performing these high pressure operations.

TR2 sets the output zero-pressure reference voltage. It has been pre-set for zero(0) volts output at zero(0) pressure applied to the pressure port.

The DC voltage output of the sensor will vary linearly with the applied pressure and will provide approximately 4-4.5 VDC output with 15 lbs/sqr-inch applied to the pressure port.

Model PSI-V3



Installation

Installation of the interface is simple. First, it is necessary to 'T' into your existing pressure line to provide a pressure sample for the interface sensor input. Brass 'T''s (Tee's) and suitable hose can be found at most well stocked hardware stores. The following is a list of components necessary for the installation.

1. Brass 'T' (either Nipple or Block type)
2. Suitable length of plastic or rubber hose - 1/8” to 3/16" I.D.

After the installation is complete, it is advisable to insure that no leaks have been created by the installation. This can best be accomplished by the application of small amounts of soapy solution to all new connections and carefully looking for any bubbles that may appear. Be very careful to remove power from the interface before checking the sensor for leakage. Also make sure the unit is completely dry before re-applying power.

Refer to the accompanying application illustrations for further installation details.

Mounting and Connection

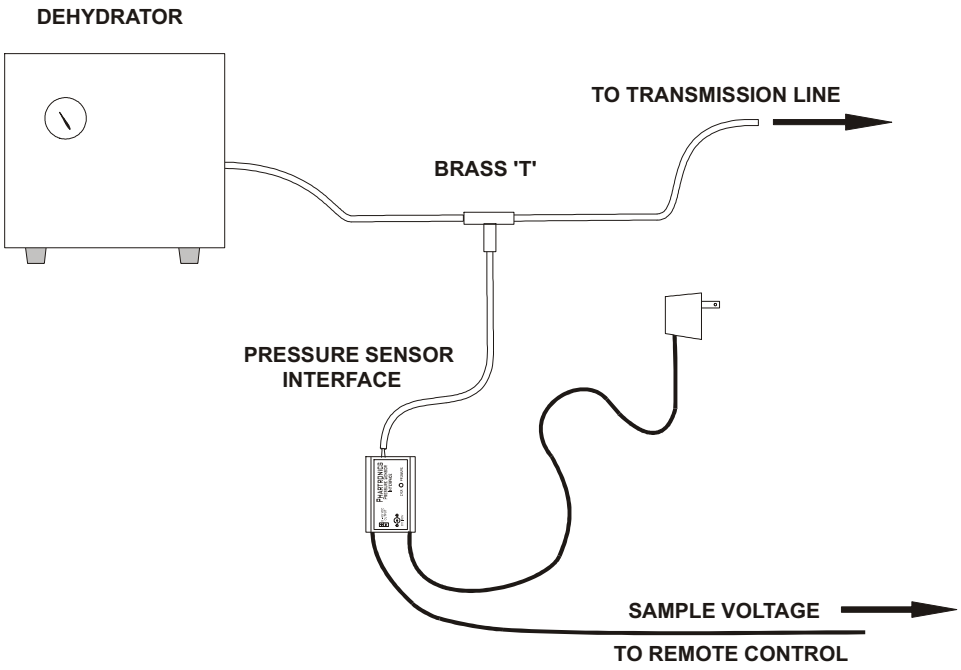
Strips of Velcro have been provided with the unit to provide a means of mounting the unit on any suitable surface available. A screw down terminal plug has also been provided for connecting the output of the unit to your remote control.

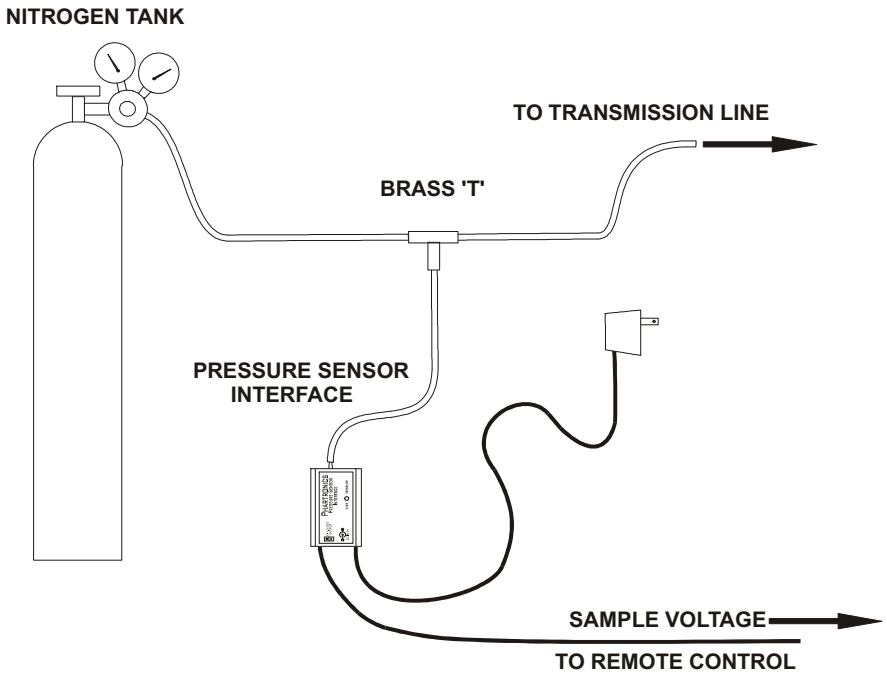
Calibration

Depending on the type of remote control you use, you may have to measure the DC voltage output of the sensor (while in operation under pressure) in order to determine the multiplier required for calibration. This would apply mostly to Dial-Up type remote controls.

Follow the directions in your remote control manual for setting up and calibrating the input you plan to use for the sensor. The input should be set up for linear mode. While calibrating your remote control, you will probably want to add an Upper Limit and Lower Limit alarm setting to the remote control input that you use for the sensor. You may set up the readout or (for dial-up remote controls) the voice response with as many decimal places necessary for the desired resolution.

All of the current dial-up remote controls have, in their voice library \vocabulary, the necessary words for programming the voice response for line pressure reports.


DEHYDRATOR
TO TRANSMISSION LINE
BRASS 'T'
PRESSURE SENSOR
INTERFACE
SAMPLE VOLTAGE
TO REMOTE CONTROL


NITROGEN TANK
TO TRANSMISSION LINE
BRASS 'T'
PRESSURE SENSOR
INTERFACE
SAMPLE VOLTAGE
TO REMOTE CONTROL

PSI-V3 Specifications

Supply Voltage ..... 9VDC (Wall Block Supply Provided)

Pressure Range ..... 0 - 14.5 PSI

Maximum Allowed Pressure .....20 PSI

Linearity .....25% Full Scale

Full Scale Span .....0 - 4.5 VDC @ 0 - 14.5 PSI

Stability ..... < .5% Full Scale

Operating Temperature .....0 - 125 Degrees Centigrade

Pressure Line Size for Nipple Connection - 3/16"or.8mm

Phartronics Warranty

PHARTRONICS ENGINEERING warrants to the original purchaser, this product to be free from manufacturing defects under normal usage. PHARTRONICS' obligation under this warranty shall be limited to, at PHARTRONICS' option, the repair or exchange of any part or parts which may thus prove defective under normal usage, and which PHARTRONICS' inspection shall disclose to its satisfaction to be thus defective. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED, ARISING BY LAW OR OTHERWISE (INCLUDING, WITHOUT LIMITATION, ANY OBLIGATIONS OF PHARTRONICS WITH RESPECT TO FITNESS, MERCHANTABILITY AND CONSEQUENTIAL DAMAGES), AND PHARTRONICS NEITHER ASSUMES, NOR AUTHORIZES ANY OTHER PERSON TO ASSUME FOR IT, ANY OTHER LIABILITY IN CONNECTION WITH THE SALE OF THIS PRODUCT. THIS WARRANTY SHALL NOT BE EXTENDED, ALTERED OR VARIED EXCEPT BY A WRITTEN INSTRUMENT SIGNED BY PHARTONICS. THE TERM "ORIGINAL PURCHASER" AS USED IN THIS WARRANTY SHALL BE DEEMED TO MEAN THAT PERSON TO WHOM THIS PRODUCT WAS ORIGINALLY SOLD.

The Phartronics Pressure Sensor Interface
Model Number PSI-V3, S.N. _____
shall be warranted under the conditions outlined above for a period of one (1) year from the date of purchase given below.

Date of Purchase _____/_____/_____
mo. day year