

INSTRUCTION SHEET

275 VARIABLE PRESSURE SIMULATOR

CERTIFICATION

Granville-Phillips certifies that this product met its published specifications at the time of shipment from the factory.

LIMITED WARRANTY

This Granville-Phillips product is warranted against defects in materials and workmanship for one year from the date of shipment. Granville-Phillips will, at its option, repair or replace or refund the selling price of an item which proves to be defective during the warranty period provided the item is returned to Granville-Phillips together with a written statement of the problem.

Defects resulting from or repairs necessitated by misuse of the equipment or any cause other than defective materials or workmanship are not covered by this warranty. NO OTHER WARRANTIES ARE EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. GRANVILLE-PHILLIPS IS NOT LIABLE FOR CONSEQUENTIAL DAMAGES.

General Description

The 275244 Variable Pressure Simulator will simulate a 275 gauge tube at any pressure when connected to Series 275 *CONVECTRON*[®] gauge controllers. The purpose of the Variable Pressure Simulator is to demonstrate or exercise the operation of a *CONVECTRON* gauge controller over the entire operating range. By using a voltmeter in conjunction with the Variable Pressure Simulator, vacuum and atmosphere controller calibration can be verified.

Operating Instructions

1. Disconnect the gauge tube cable at the gauge tube end and connect the Variable Pressure Simulator in its place.
2. Adjust the potentiometer on the end of the simulator for the desired simulated pressure.
3. To check controller calibration, insert the prods of a digital voltmeter through the two holes in the simulator shield and contact pins 1 and 3. Adjust the simulator for 0.375 Vdc and the controller should read zero pressure. If not, adjust controller VAC for "0." Reading. Adjust the simulator for 5.534 Vdc and the controller should read 760 Torr. If not, adjust controller ATM for "760" reading.

**SERIES 275
TABLE OF VALUES
FOR AIR OR NITROGEN**

<u>True Pressure (Torr)</u>	<u>Bridge Voltage</u>	<u>(9 volt) Analog Output</u>
0	.3751	.0000
.0001	.3759	.0014
.0002	.3768	.0029
.0005	.3795	.0075
.001	.3840	.0151
.002	.3927	.0299
.005	.4174	.0720
.01	.4555	.1370
.02	.5226	.2512
.05	.6819	.5226
.1	.8780	.8566
.2	1.1552	1.3287
.5	1.6833	2.2282
1.0	2.2168	3.1367
2.0	2.8418	4.2013
5.0	3.6753	5.6208
10.0	4.2056	6.5240
20.0	4.5766	7.1560
50.0	4.8464	7.6155
100.0	4.9449	7.7833
200.0	5.0190	7.9096
300.0	5.1111	8.0664
400.0	5.2236	8.2580
500.0	5.3294	8.4382
600.0	5.4194	8.5914
700.0	5.4949	8.7200
760.0	5.5340	8.7866
800.0	5.5581	8.8276
900.0	5.6141	8.9230
1000.0	5.6593	9.0000
1100.0	5.7006	9.0703

Data Table, N₂, V_{BR} vs. P: For use only with Series 275 *CONVECTRON* Gauge controllers (excluding *MINI-CONVECTRON*) and other 300 Series VGC's with *CONVECTRON* option. Data table cannot be used for Series 375 *CONVECTRON* Gauge Controllers.