The DSGL3 is designed for continuous operation. Warm-up time is negligible. When power is first applied, the gauge will set the loop current to maximum and check the voltage available. If there is sufficient voltage available to power the unit, all active segments will be displayed briefly.

Then the full scale pressure range and engineering units are displayed. All active segments will then again displayed briefly. Then the display will show the system pressure, and the loop current will be linearly proportional to the pressure/vacuum.

The output is a 12,000 count analog 4-20 mA signal. The output is filtered to improve noise immunity and is updated approximately 16 times per second.

The gauge is calibrated at the factory. The display is not used to indicate pressure.

The lower display segments will alternate between CAL and 4 MA.

Press the TEST button and release it when the display indicates CAL. The upper display segments will indicate the preconfigured pressure corresponding to a 20 mA loop current.

Note: During any of the following calibration steps if the TEST button is held depressed for longer than 2 seconds, the display will change to indicate -- -- -- , and the gauge will exit the calibration mode when all buttons are released.

Zero calibration
Press the TEST button and release it when the display indicates CAL. Apply zero pressure.

To store the calibration parameters and exit calibration mode, press and hold the TEST button until the display indicates -- -- -- .

Calibration Pass Code
1. While pressing and holding the button, press the TEST button to enter the configuration mode. The upper section of the display will indicate CFG.

2. When all buttons are released, the upper section of the display will indicate -- -- -- with the left-most position blinking, and the lower section will indicate PASS. To exit and return to the normal operating mode, press and release the TEST button.

3. Enter the user-modifiable calibration pass code (9510 factory default) or 

4. Press and release the TEST button to move to the next position. The 3 will remain, and the second position will be blinking. Use or to select 5.

5. Press and release TEST to move to the next position. The 5 will remain, and the third position will be blinking. Use or to select 0.

6. Press and release the TEST button to proceed with calibration. If an incorrect pass code was entered, the gauge will exit to the normal operating mode.

Calibration
Upon successful calibration pass code entry, the upper display will indicate the applied pressure in the configured engineering units with the corresponding loop current.

The lower display will alternate between CAL and the calibration region corresponding to the applied pressure (ZERO, +5PSI, +SPAN, -5PSI, -SPAN).

To store the calibration parameters and exit calibration mode, press and hold the TEST button until the display indicates -- -- -- .

Loop Current Calibration
Loop current calibration coordinates the loop current to the display indication, and is performed independently of applied pressure. It requires a direct physical measurement of the loop current. Note: During any of the following calibration steps if the TEST button is held depressed for longer than 2 seconds, the display will change to indicate -- -- -- , and the gauge will exit the calibration mode when all buttons are released.

4 mA loop current
Press the TEST button and release it when the display indicates 0CAL. The upper display segments will indicate the pre-configured pressure corresponding to a 4 mA loop current.

The lower display segments will alternate between CAL and 4 MA. Use or to adjust the actual loop current to 4 MA.

Calibration—continued
20 mA loop current
Press the TEST button and release it when the display indicates HCAL. The upper display segments will indicate the preconfigured pressure corresponding to a 20 mA loop current.

The lower display segments will alternate between CAL and 20 MA. Use or to adjust the actual loop current to 20 MA.

Pressure Calibration
The pressure calibration procedure simultaneously adjusts both the display indication and the loop current to correspond to the actual applied pressure.

To store the calibration parameters and exit calibration mode, press and hold the TEST button until the display indicates -- -- -- .

Span calibration
Apply full-scale pressure.

Use or to adjust the display to indicate zero.

NEVER connect the gauge wires directly to 115 VAC or permanent damage will result.

When the TEST button is held depressed, the display and loop current are switched, independent of the actual pressure, to a level determined by the test setting. When the button is released, normal operation is resumed. This test mode will allow setup and testing of the current loop without having to alter the system pressure.

To test the output level, press and hold the front-panel TEST button and press the up or down arrow buttons to adjust the output level to the desired pressure setting. When the TEST button is released the setting is stored in non-volatile memory.