

PRODUCT INFORMATION**MAX/MIN RECALL OPTION**

As its name implies, the purpose of the "Max/Min Recall Option" is to record the highest and lowest pressure value that the unit has indicated within the last established operation cycle.

Function

901 indicators equipped with the Max/Min option will store this information in the "random access memory" (RAM) in the microprocessor, which is a component of the indicator's "on board" computer. The computer will compare the currently displayed value to the stored "high" (maximum) and "low" (minimum) values twelve times per second, and will update these values as the current indication either exceeds the stored maximum value or falls below the stored minimum value. These values will remain unchanged in the RAM until either a new high or low point is attained, the memory is cleared or the unit is turned off.

Operation

To operate this feature, the user simply begins his test by depressing the "clear" button to erase any high or low values that have already been established in the RAM. After running the pressure cycle or test, the user can now recall the highest and lowest pressures that occurred during the last cycle by simply depressing the "Max/Min" button on the front panel twice. The first push of the button will cause the unit to display the maximum value, which will be identified by an illuminated "max" light to the left of the pressure display. A second push of the Max/Min button will cause the unit to display the minimum value, which will be indicated by a "min" light in the same location. Depressing the "Max/Min" button a third time will return the unit to current pressure indication.

Remember, the unit will begin to establish new maximum and minimum values immediately after the memory has been cleared. Thus, if the unit is cleared before pressurization begins, the minimum value will be established at zero and remain unchanged throughout the cycle (unless the indicator is subjected to vacuum). Therefore, in some applications, it will become necessary to clear the memory during the cycle so that the minimum value can be established as pressure recedes from some point greater than zero.

Effect on Outputs

Since the pressure values reported by both the RS-232 and BCD optional digital outputs will always match the displayed value they will, in turn, reflect the maximum and minimum values when the user has activated the Max/Min recall feature. By setting DIP switch #6 to the "open" position, it will add the "max", "min" or "normal" mode indication to the RS-232 data string. On units equipped with BCD output, connector pins 16 and 17 will change state to indicate whether

the unit is normal, maximum or minimum indication mode. (For more information regarding outputs, consult the Series 9 manual.)

Analog output signals (0-5V, 0-10V or 4-20mA) reflect current pressure indication only and, therefore, do not reflect the maximum or minimum values which are displayed when the unit is operated in the recall mode.

Applications

The Max/Min recall option can be used in a variety of applications, the most common of which are:

- **Burst Testing:** When a hose or vessel is pressurized to the point of burst, the user can recall the exact burst pressure by activating the max recall function.
- **Relief Valve Testing:** Both the maximum and minimum recall functions can be used for testing and/or setting “pop-off” and “blow-down” on pressure relief valves. Many relief valve testing facilities require a precision instrument to attain certification by ASME or the National Board of Boiler Inspectors. (For specific instructions and information regarding the use of the 901 indicator with Max/Min recall capability for relief valve testing, consult “Heise® Product Information.”)
- **Tensile or Compression Testing Machines:** Machines which test the tensile strength of cables or the compression strength of concrete blocks require a pressure indicator with a maximum recall capability.

Please remember that the “Max/Min Recall” option and the “Hi-Lo Setpoint” option are two completely different features that serve different purposes.