

PRODUCT INFORMATION**HI/LO SETPOINT OPTION**

Although the Series 9 digital pressure indicator is widely perceived as a “laboratory” instrument, it is often used in process control applications as well. One of the features that is often employed in this role is the “Hi/Lo Setpoint” option.

Often confused with the “Max/Min Recall” option, it is important to first establish the difference between the two. The Max/Min option is simply a memory feature which records the highest and lowest pressures that the 901 has indicated since it had last been cleared. The only operational requirement of the user is to push the “clear” button prior to use, and to push the “recall” button when he wishes to observe and record the highest and lowest pressures that occurred during the preceding cycle.

The “Hi/Lo” option serves a completely different purpose. The function of this feature is to allow the 901 to control an external device by operating a set of internal relay drivers. The two points at which the relay drivers are activated are determined by the user and are programmed into the indicator via a set of switches located on the right side of the front panel. The 901 will then activate the first relay driver when the “Lo” point is achieved, and the second when the “Hi” point is achieved. In addition, small status lights located in the center of the “Up” and the “Down” button indicate when the unit is operating in excess of the high or low values.

The internal relay drivers used in the Series 9 are rated for a maximum of 30 Vdc at 300mA. The normal contact mode is closed when the pressure is within the setpoints. This provides the circuit with a “fail safe” mode which will insure that in the event of a power failure, the relay drivers will move to the open state. Depending on the application this can be very important, as some 901 indicators are used to operate pumps or solenoid valves. In these cases, by using a relay driver which defaults to the open position, a situation such as the overflow of a tank or the excessive build-up of pressure beyond safe limits can be avoided.

Programming of the Hi/Lo setpoint function is achieved by executing a series of programming commands with four switches on the front panel. The operator can use these switches to both program and review the setpoint information. In order to insure that the setpoint information is not accidentally or inadvertently altered, the user must identify a “password” each time he chooses to reprogram the Hi or Lo values. The password is pre-set at the factory and is usually the 5 digits of the serial number which proceed the “S9-” prefix. In some cases, customers have specified an alternate password when ordering a Series 9 indicator with the Hi/Lo option.

To access the relay drivers, a standard 25 or 44 pin female “D” type connector is provided on the rear panel. With each 901 that is purchased with this option, the mating male connector is also provided.

The Hi/Lo setpoint feature can be used in any application where precision pressure measurement and control is required. In addition to controlling the operation of pumps and valves, the Hi/Lo setpoint feature is also used to operate alarms, warning lights, more powerful relays and any other external devices which must operate within specified pressure parameters.

More information, including specific operating and wiring instructions for the Hi/Lo setpoint feature, can be found in the Series 9 installation and operation manual.