

MPC-3 FEED PRESSURE SENSOR TEST MPC-3000 & 5000 Mk-1



There are two pressure sensors and a vacuum sensor on MPC-3000 and MPC-5000 Mk I automated units.

The two pressure sensors, p/n EL-SSR-XX, are on the discharge side of the feed water pump. One is located at the inlet to the prefilters and the other at the outlet. The inlet side (red) sensor is used for the FEED PRESSURE reading and alarm. The inlet pressure is also compared to the outlet side (green) sensor reading to determine the pressure drop across the filters for the SERVICE PREFILTERS function. Before proceeding replace both filter elements with new ones

If you are getting SERVICE PREFILTER false alarms you can zero out the pressure sensors with the key pad as follows. The system should be running with the pressure relief closed. Run the system manually if necessary. Simultaneously press the ALARM/DISPLAY button and the AUTO/STORE button. Watch the display when you do it. When you get it right you will see a code flash in the upper left corner of the display. Keep trying until you see the flash. Once it flashes the sensors are calibrated to zero differential. On the test stand with clean filters our "Prefilter Good/Replace" display reads 0 squares. Note: If this does not zero out the setting appropriately you will need to connect a computer to the MPC board and adjust the settings. See the user manual for more details.

If there is no feed pressure reading, swap the sensor wiring, so that the upstream red plug is plugged into the green sensor and vice versa. If the display now shows a feed pressure reading then the fault is with the upstream sensor. If there is still no reading then the wiring is bad or the printed circuit board has a fault.

If the feed pressure reading is high and you are tripping on HIGH PRESSURE, swap the plugs as above. If the pressure reading is lower, then the upstream sensor is reading high. If the reading is the same you either really do have high feed pressure or the controller may need to be reprogrammed using the Spectra software available on our website

If you determine that you are getting a false SERVICE PREFILTER or HIGH PRESSURE alarm, On MPC-3000 systems these alarms can be defeated by unplugging the sensors or unplugging the green ten pin connector on the MPC printed circuit board. Monitor the system carefully if running with the alarms defeated. On MPC-5000 systems defeat false alarms using the “Programming from the Display” feature.

The vacuum sensor is found inside the pump module and is used for the CHK SEA STRAINER alarm to warn of a clogged strainer or 50 micron filter. It is set for 15 inches Hg. It has three terminals: normally open, normally closed, and common. It should be wired to normally open (NO) and Common (C). If it is wired to (NC) you will get a false alarm. If you unplug the sensor the system should run normally. If you still get an alarm with the sensor unplugged there is a problem in the printed circuit board.