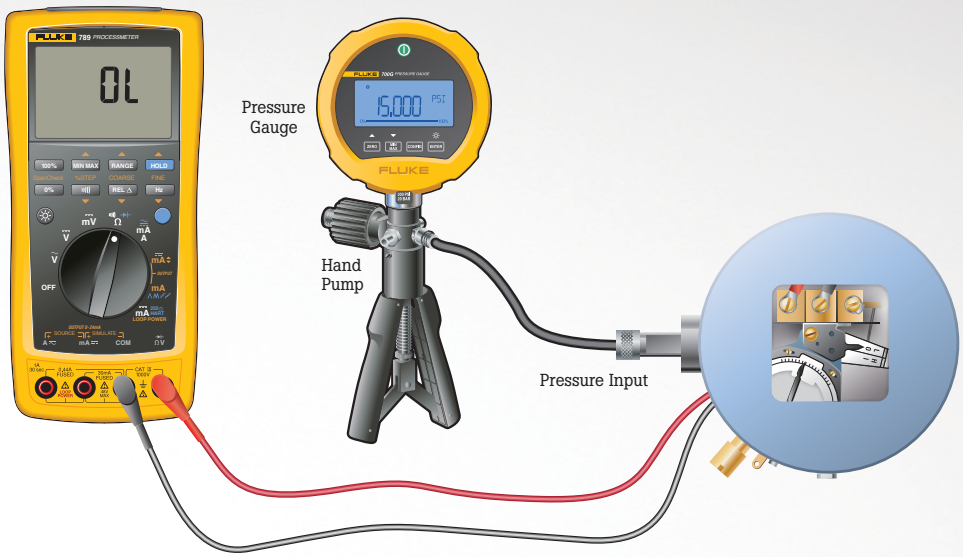

To perform the test:

Setup

STEP 1 Safely disconnect the device from the process it controls.

STEP 2 Connect the calibrator or DMM to the common and NO (normally open) output terminals of the switch. The DMM or calibrator will measure an "open circuit". if measuring continuity. If measuring V ac be sure the tool is properly rated for the voltage being measured.

STEP 3 Connect the pressure switch to a pressure source such as a hand pump connected to a gauge.

Rising pressure

STEP 4 Increase the source pressure to the setpoint of the switch until the switch changes state from open to close. Manually record the pressure value when the DMM indicates a "short circuit" or if using a calibrator it will record the value for you.

Falling pressure

STEP 5 Continue to increase the pressure until the maximum rated pressure. Slowly reduce the pressure until the switch changes state again, and resets from closed to open, then record the pressure.

Calculation

STEP 6 The setpoint pressure was recorded when the pressure was rising. The deadband value is the difference between the rising setpoint pressure and the falling pressure reset point.

TECH TIPS

When you use a Fluke 754 or 3130 to automate the pressure switch calibration, vary the applied pressure slowly, back and forth across the setpoint and reset points. The display will make it apparent that the set/reset has changed and the actuals will be logged.

Additional resources
For more in depth information about this application check out these videos and application notes from Fluke.

See the pressure switch test video at: www.fluke.com/pressureswitch

Calibrating pressure switches with a DPC