



PRODUCT APPLICATION REVIEW

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Spray Nozzle Test Stand

APPLICATION

A component manufacturer required a test stand to qualify windshield washer spray nozzles. Nozzles must meet a water flow rate specification of 1000 mLpm (0.26 GPM) with a tolerance of ± 100 mLpm at 18psi as per the car manufacturer. The test stand operator needs an indication of pass or fail.

MCMILLAN PRODUCTS UTILIZED

250 Multifunction Display
250-11 Alarm Output Card
101-7 Liquid FLO-SENSOR
100-17T Cable Assembly

DESCRIPTION

McMillan Multifunction Displays have many features. When combined with the optional Alarm Output Card, they can be used to perform high/low alarm functions. The Model 250 has an internal 12v power supply that provides power to the 101-7 FLO-SENSOR via the 100-17T Cable Assembly.

OPERATION

While operating the test stand the technician can observe the flow rate on the Model 250 or listen for the external device to indicate pass or fail. While the test stand is not in use, or if the technician is swapping nozzles, the alarm feature will remain OFF until the flow rate exceeds 100 mLpm. The alarm will indicate PASS when the flow is in the specified range 900-1100 mLpm and FAIL when flow rate is above 100 mLpm and out of the specified range.

ADVANTAGES

McMillan products provide accurate, repeatable measurement of low flow rates. The combination of McMillan FLO-SENSOR and DISPLAY technologies provided a low-cost, high performance solution to this customer's problem.

DIAGRAMS

Figure 1 illustrates the flow path of the fluid system. Figure 2 illustrates the wiring of the system. Figure 3 illustrates the configuration of set points as programmed into the Model 250.

FIGURE 1 – Flow Path of Fluid System

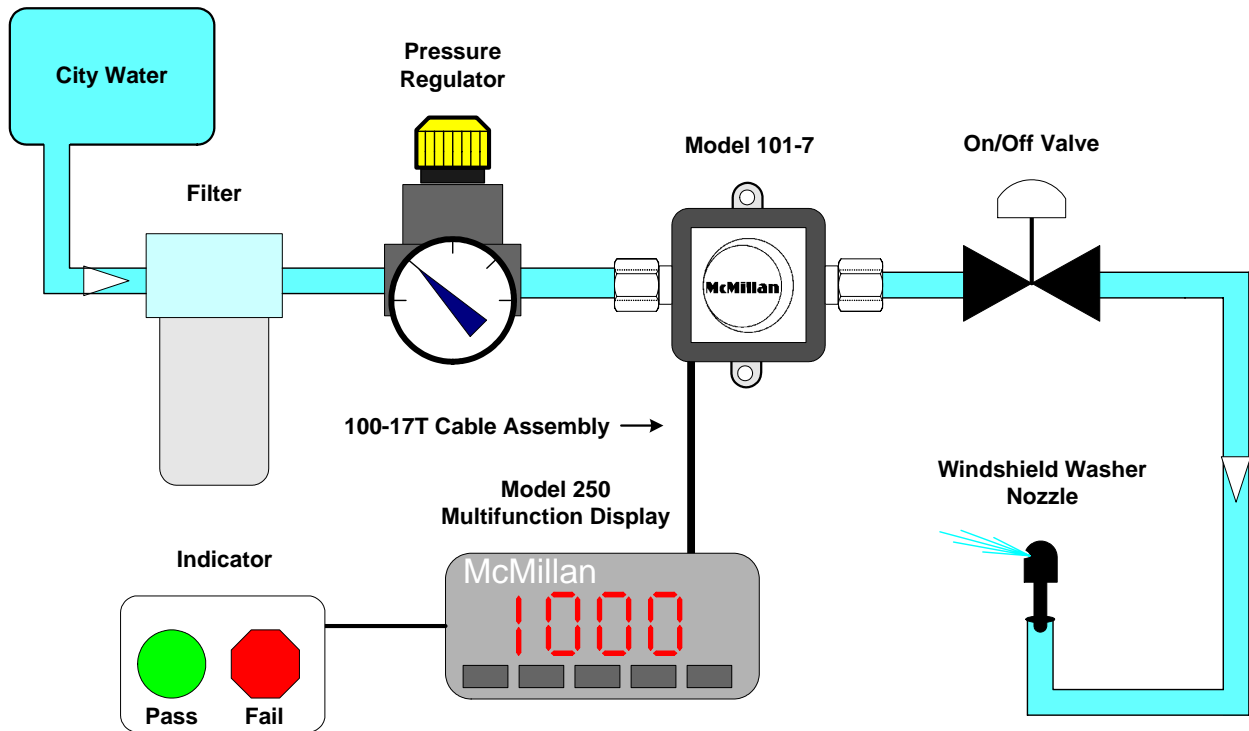


FIGURE 2 – System Wiring
Model 250

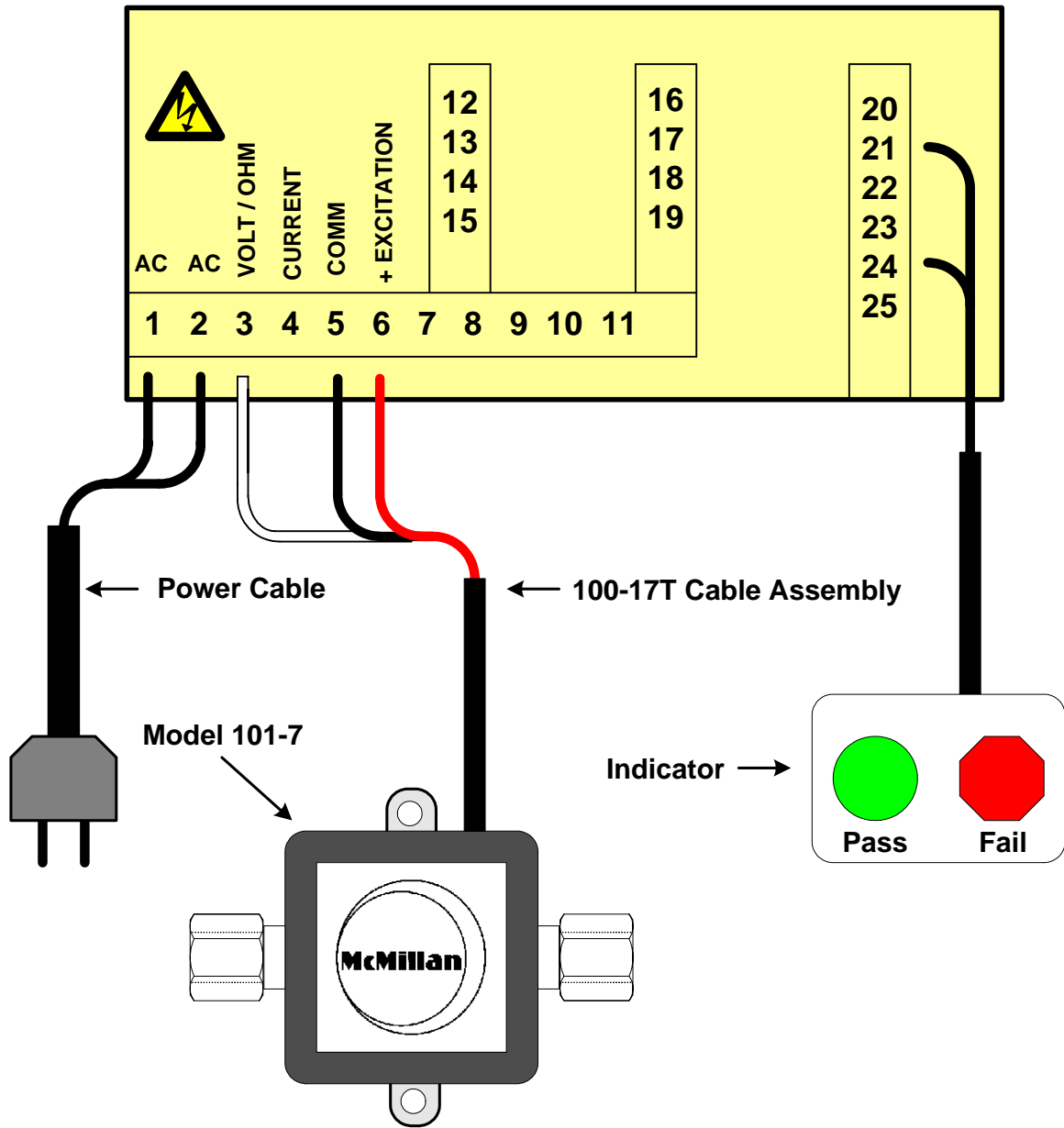


FIGURE 3 – Configuration of Set Points

