

# INSTALLATION OF THE HIGH SPEED SWITCHING ACCESSORY

## Technical Note 412

The High Speed Switching Accessory (HSSA) is designed for use with our standard air actuators, providing increased air or helium\* flow for the fast actuation required in partial loop injections or microbore chromatography. Typically the application involves our Digital Valve Interface (DVI), which converts low power logic level signals or contact closures into pneumatic pulses for the operation of the actuator (see **Technical Note 411**, Implementation of the Digital Valve Interface, for instructions specific to it).

**TABLE 1: Transit times for a C6W valve**

AIR PRESSURE TO ACTUATOR	VALVE TRANSIT TIME STANDARD	VALVE TRANSIT TIME HSSA
40 psig	299 ms	39 ms
60 psig	264 ms	28 ms
100 psig*	180 ms	20 ms

**CAUTION: Make certain the actuator and valve are properly aligned before proceeding.**

1. Remove any existing air line fittings from the actuator.
2. Orient the HSSA as shown in **Figure 1** on the next page. Use a 5/16" open end wrench at the points indicated to tighten the HSSA's fittings into the actuator air inlets.
3. The air in the 1/8" lines from the DVI switches the pilot valves, allowing the high-volume flow from the 1/4" line to switch the actuator. Connect the 1/8" lines from the DVI or other device to the HSSA pilot valves, as shown in **Figure 1**.
4. Use 1/4" tubing (not supplied) to connect the HSSA tee fitting to a source of compressed helium or air (40 –100 psig).
5. Connect the DVI to the same source.

\*The fastest switching times are obtained with helium. Typical valve transit time with 100 psig helium is 8 ms.

**FIGURE 1: High speed switching accessory connections**

