

North American 1177D Cycle Valves for Air and Exhaust

Installation 1177D

Do not attempt to install, operate, or repair these devices without proper training in pneumatic systems and devices, unless under trained supervision. Compressed air systems contain high levels of stored energy. Do not attempt to connect, disconnect or repair this product when the system is under pressure. Always exhaust or drain the pressure from a system before performing any service work. Failure to do so can result in serious personal injury.

INSTALLATION INSTRUCTIONS

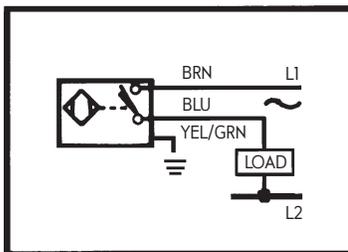
Piping:

The 1177D Cycle Valve must be mounted in the piping with the shaft in the horizontal position and in a location without excessive radiant heat on the actuator and switch. Locate the actuator so that it is visible to the operator. (DO NOT locate the actuator behind the pipework). The switch and actuator must be accessible for maintenance. Pipe the valves as close to the burner as possible, but not in a hot area.

Check the actuator compressed air inlet port for the presence of the inlet snubber. The snubber has a 1/8" fpt connection. The vent port should have a small filter.

Wiring:

WIRING DIAGRAM
normally open proximity switch



To wire the valve closed proximity switch, use at least 16 gauge wire and following the wiring diagram, splice the proper wires together using approved electrical connectors. The switch is normally open and the red LED will be illuminated when the valve is closed and the switch is made. Set the gap on the switch no more than 5/16". The switch is 20-250 VAC (50/60 Hz) at ≤ 400 mA rated operational current or 10-300 VDC at ≤ 300 mA rated operational current. Maximum residual current leakage is ≤ 1.7 mA.

If furnished, the valve open proximity switch (normally open, closes when valve is open) is wired the same way.

Two 1/8" NPT connections are furnished with pipe plugs on the actuator mounting bracket. These connections are supplied if cooling air is needed when ambient temperatures are above the switch temperature limits. One cooling air connection per switch.

OPERATING INSTRUCTIONS

The 1177D Cycle Valve requires clean and dry air at 60 to 70 psi connected to the actuator inlet port, P1. When the 1177D Valve is supplied with air, the actuator will drive the valve to the full open position. When air is removed from the actuator, the valve will snap shut. An orange indicator on top of the actuator moves when the valve opens and when it closes for visual position indication.

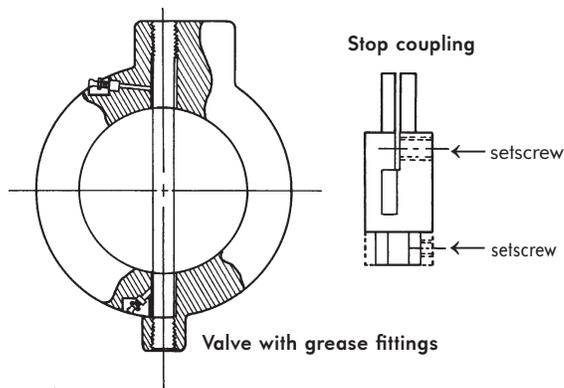
The valve assembly includes a stop coupling which connects the actuator and the valve. The stop coupling has a sawcut on one end. The sawcut is used in conjunction with a setscrew to spread apart the stop coupling once it has been inserted in the actuator. This tightens the assembly and acts as an interference fit. There is a setscrew on the other end of the stop coupling to tighten it to the valve shaft. Two metal flags are welded and positioned on the stop coupling to trip the open and closed proximity switches.

MAINTENANCE INSTRUCTIONS

The valve has a grease fitting on either end of the valve shaft. The valves are greased in the factory before shipment. Once every 3 months or as required grease the valve using a high temperature lubricant good for 450°F. Seal replacement kits are available for the actuators. (See Spare Parts 1177D.)

Periodically, check the stop coupling for wear. If the stop coupling has become loose from the actuator or valve shaft, tighten it using the setscrews on the stop coupling. If the ends have worn, replace the stop coupling.

Replace the small exhaust filter on the actuator port, P2 as needed.



For Specifications and Capacities, see Bulletin 1177D
For Dimensions, see Dimensions 1177D
For Spare Parts, see Spare Parts 1177D
For Trouble-Shooting, see Trouble-Shooting 1177D
For Conversion Kit Instructions, see Conversion/Replacement Kits 1177D

WARNING: Situations dangerous to personnel and property may exist with the operation and maintenance of any combustion equipment. The presence of fuels, oxidants, hot and cold combustion products, hot surfaces, electrical power in control and ignition circuits, etc., are inherent with any combustion application. Parts of this product may exceed 160F in operation and present a contact hazard. Fives North American Combustion, Inc. urges compliance with National Safety Standards and Insurance Underwriters' recommendations, and care in operation.



CONTACT US:
Fives North American Combustion, Inc.
4455 East 71st Street - Cleveland, OH 44105 - USA
Tel: +1 216 271 6000 - Fax: +1 216 373 4237
Email: fna.sales@fivesgroup.com

www.fivesgroup.com