VANGUARD Solenoid Pilot 3/2 Valves with Delayed-Pressure-Buildup Function

V475 Models
Port Sizes: 1/4 to 1

Model Shown: V475-4N4

◆ Delayed pressure buildup (DPB); rate of pressure buildup adjustable.

◆ 3-Way poppet valve. Available in two body sizes and five port sizes.

◆ Solenoid pilot allows remote control.

◆ Solenoids CSA approved.

◆ Threaded exhaust port to accommodate a silencer or a line for remote exhausting.

◆ **NPTF** port threads; optional **BSPP** threads.

SPECIFICATIONS

Media Temperature:
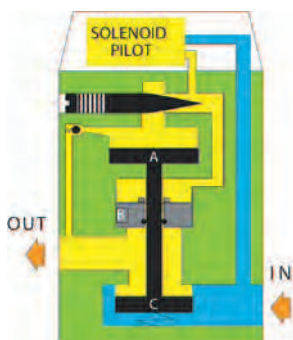40° to 175°F (4° to 80°C).

Ambient Temperature:
40° to 120°F (4° to 50°C).
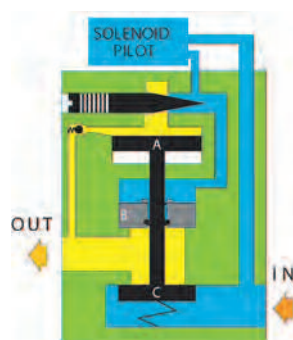
Fluid Media: Compressed air.

Inlet Pressure: 15 to 150 psig (1 to 10 bar).

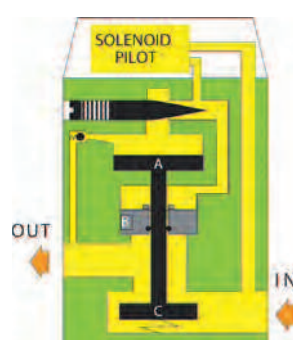**Solenoid Voltages:** 110 volts 50/60 Hz standard. Optional available voltages shown on following page.
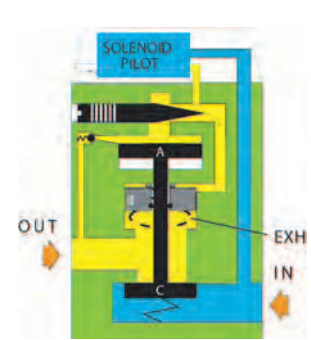
VALVE OPERATION

Solenoid not energized. Inlet air is blocked by poppet C. Piston B slides on the valve stem and is pushed upward if there is any downstream pressure. This opens the exhaust and vents the downstream line.

Solenoid energized. Pilot air forces piston B downward to close exhaust port. Pilot air also flows past the metering pin, opens the ball check, and slowly pressurizes the outlet line. Pressure is also building up on piston A.

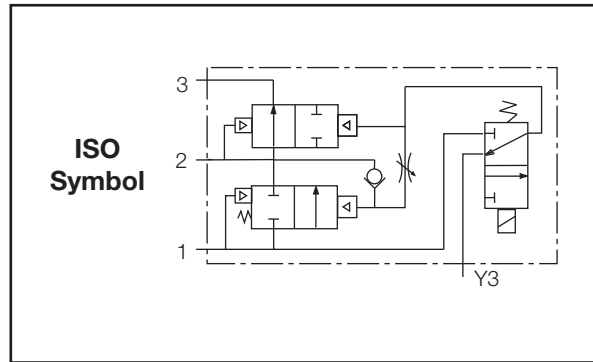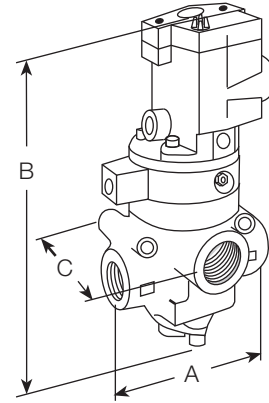When the pressure on piston A reaches 50% of inlet pressure, the piston is forced downward, opening inlet poppet C. Full inlet pressure now flows freely to the outlet port.

Solenoid de-energized. Air above pistons A and B is exhausted through the exhaust port of the pilot valve. Air above poppet C forces sliding piston B up so that the main exhaust port is opened and pressurized air is exhausted.

Master Pneumatic, Inc.

DIMENSIONS inches (mm)

Port Sizes		Average C$_v$				
In-Out	Exh	1 to 2	2 to 3	A	B	C
1/4	1/2	2.5	3.1			
3/8	1/2	3.6	5.3	4.2 (107)	8.8 (224)	3.2 (79)
1/2	1/2	3.3	5.3			
1/2	1	6.3	9.2			
3/4	1	7.7	11	4.7 (118)	9.6 (243)	3.6 (92)
1	1	8.0	12			

ISO Symbol

ORDERING INFORMATION

Select the port sizes in the sample model number below to specify the valve you want.

V475 - A - 2 N4 W

VOLTAGE REQUIREMENT
110/50Hz, 110-120/60Hz (AC) .... Leave Blank
12/50-60Hz (AC) .... -A
24/50-60Hz (AC) .... -B
48/50-60Hz (AC) .... -C
220/50, 220-240/60Hz (AC) .... -D
12v (DC) .... -E
24v (DC) .... -F
48v (DC) .... -G
120v (DC) .... -H

INLET/OUTLET PORTS
1/4 NPTF..2
3/8 NPTF..3
1/2 NPTF..4
3/4 NPTF..6
1 NPTF...8

PORT TYPE
NPTF threads .... Leave Blank
BSPP threads .... W

EXHAUST PORT SIZE:
1/2" exhaust port..............................N4
    for 1/4, 3/8, 1/2 inlet / outlet ports
1" exhaust port.................................N8
    for 1/2, 3/4, 1 inlet / outlet ports