

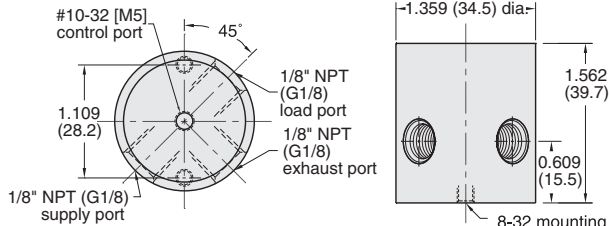
SPECIAL PILOTED 3-WAY VALVES



3-Way Normally-Closed Amplifier Valves

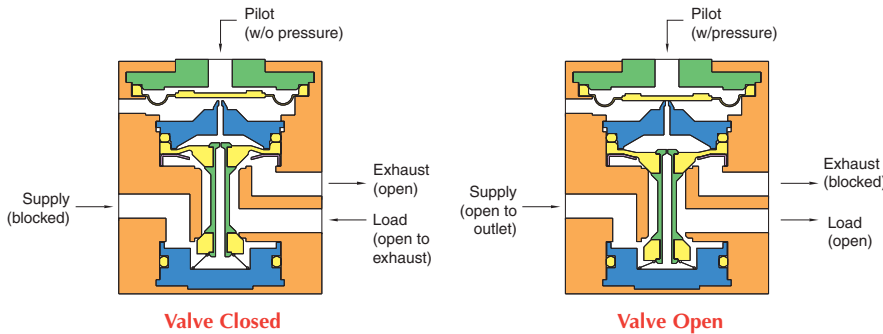


3-Way Valve Normally-Closed Interface amplifies very low pressure air-jet sensing signals to working power levels



Top View

Side View



Valve Closed

Valve Open

Medium: Air

Material: Anodized aluminum body, Buna-N diaphragms

Input Pressure: 30 to 100 psig/
2 to 7 bar max.

Air Flow: 22 scfm @ 100 psig;
530 l/min @ 6 bar

Pilot Pressure: 4" H₂O @ 100 psig

Maximum Allowable Pilot Pressure: 5 psig

Response Time: 10 milliseconds dead headed

Operating Speed: 50 Hz

Bleed: 0.1 scfm @ 100 psig

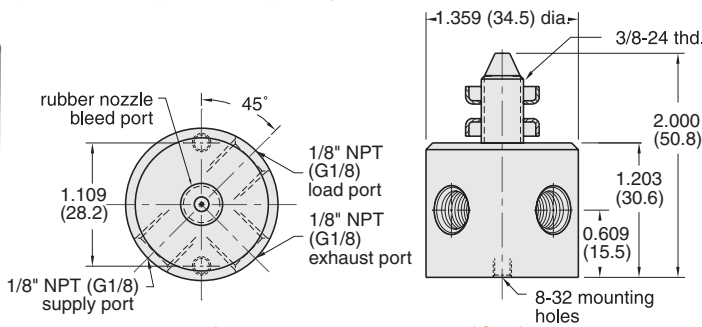
Ports: Load - 1/8" NPT (G1/8) female
Supply - 1/8" NPT (G1/8) female
Exhaust - 1/8" NPT (G1/8) female
Control - #10-32 (M5) female

Part No.	Description
2010	Normally-Closed Interface, 1/8" NPT
2010-MG	Normally-Closed Interface, G1/8

3-Way Bleed Pressure Piloted Limit Valves

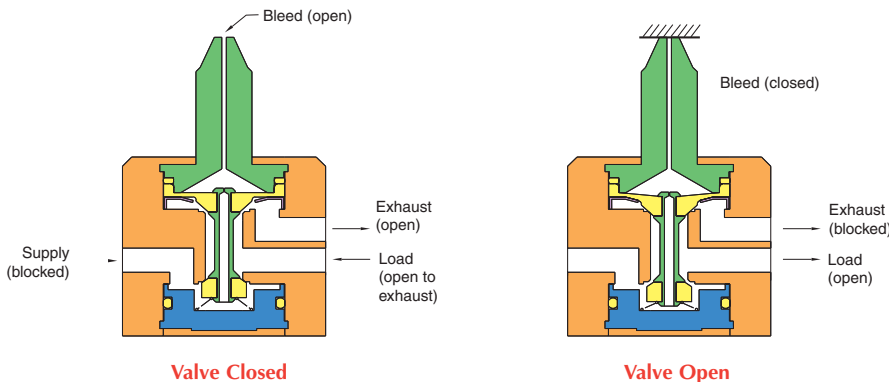


3-Way Bleed Pressure Piloted Limit Valve; blocking of the sensing port causes rapid valve opening



Top View

Side View



Valve Closed

Valve Open

Medium: Air

Material: Anodized aluminum body, Buna-N diaphragms

Input Pressure: 30 to 100 psig/
2 to 7 bar max.

Air Flow: 22 scfm @ 100 psig;
530 l/min @ 6 bar

Bleed: 0.1 scfm @ 100 psig

Response Time: 15 milliseconds

Ports: 1/8" NPT (G1/8)

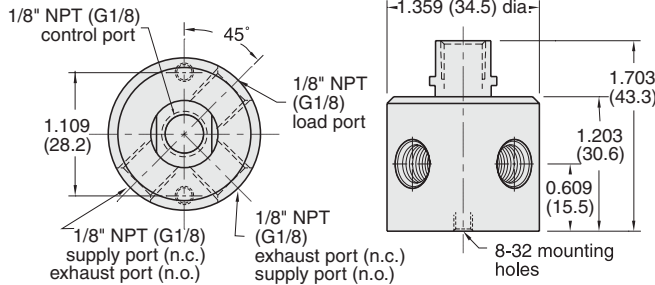
Note: Supplied with threaded bulkhead mount and integral rubber nozzle for direct actuation by mechanical closure. By removing rubber nozzle and inserting a #10-32 fitting and length of hose, 2011-1 can be converted to a remote sensing valve.

Part No.	Description
2011-1	Piloted Limit Valve, 1/8" NPT
2011-1-MG	Piloted Limit Valve, G1/8



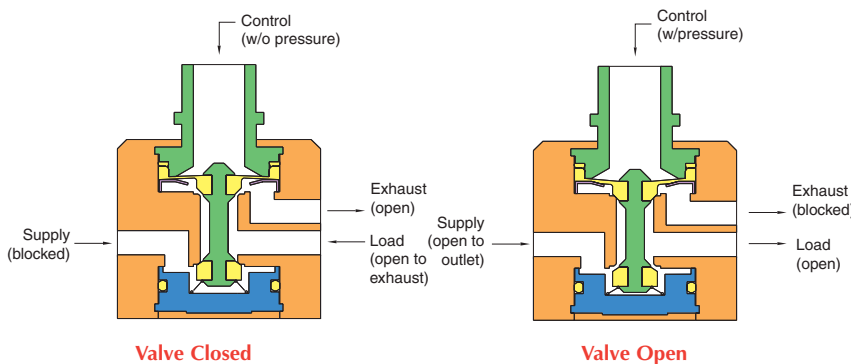
SPECIAL PILOTED 3-WAY VALVES

3-Way N.O. or N.C. Air-Piloted Valves



Top View

Side View



Valve Closed

Valve Open

Medium: Air

Material: Anodized aluminum body, Buna-N diaphragms

Input Pressure: 1 to 100 psig/7 bar max.

Air Flow: 22 scfm @ 100 psig;
530 l/min @ 6 bar

Bleed: 0.1 scfm @ 100 psig

Minimum Pilot Pressure:

N.O. - 90% of supply pressure

N.C. - 60% of supply pressure

Response Time: 15 milliseconds after pilot pressure reaches switch point

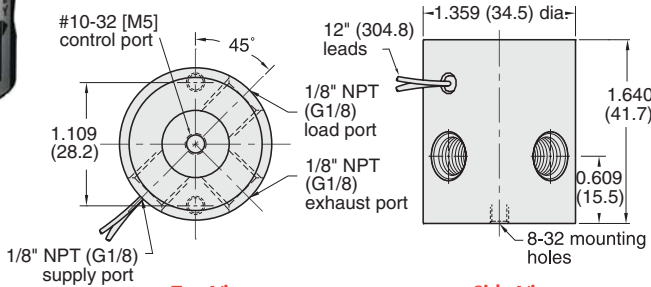
Operating Speed: 1100 CPM

Part No.	Description
2012	Piloted Valve, 1/8" NPT
2012-MG	Piloted Valve, G1/8
2012-VAC	Valve for Vacuum Operation (requires positive pressure pilot signal)
2012-G	Valve for Liquid Adhesives (silicone diaphragm and seals), 1/8" NPT
2012-G-MG	Valve for Liquid Adhesives (silicone diaphragm and seals), G1/8

3-Way N.O. or N.C. Electronically Piloted Valves

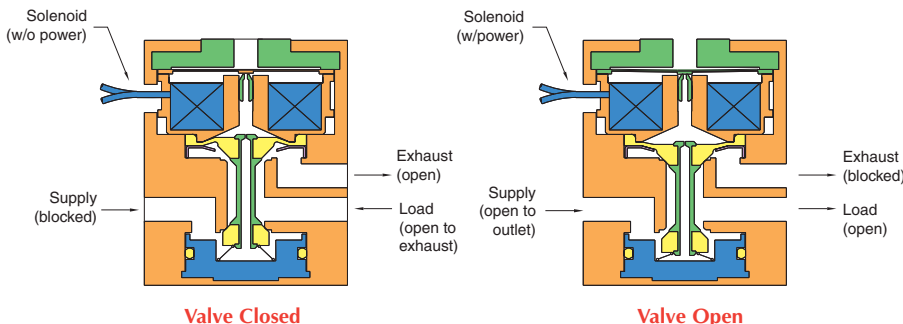


3-Way Normally-Closed Electronic Valve with low-power DC solenoid can be directly converted to high pressure pneumatic power without electronic amplification.



Top View

Side View



Valve Closed

Valve Open

Medium: Air

Material: Anodized aluminum body, Buna-N diaphragms

Input Pressure: 30 to 100 psig/2 to 7 bar max.

Air Flow: 22 scfm @ 100 psig;
530 l/min @ 6 bar

Bleed: 0.1 scfm @ 100 psig

Filtration: 10 micron

Frequency Response: 50 Hz @ 100 psig
70 Hz @ 30 psig

Switching Speed: 10 milliseconds

Leads: 28 gauge stranded PVC insulated

Continuous Overload: 350% @ 25°C ambient;
250% @ 50°C ambient

Power Consumption: less than 0.50 watts at rated voltage
80 ma. @ 6V
40 ma. @ 12V
20 ma. @ 24V

Part No.	Description
2013-6	Valve, 6 Volts DC, 1/8" NPT
2013-12	Valve, 12 Volts DC, 1/8" NPT
2013-24	Valve, 24 Volts DC, 1/8" NPT
2013-6-MG	Valve, 6 Volts DC, G1/8
2013-12-MG	Valve, 12 Volts DC, G1/8
2013-24-MG	Valve, 24 Volts DC, G1/8

SPECIAL PILOTED 3-WAY VALVES

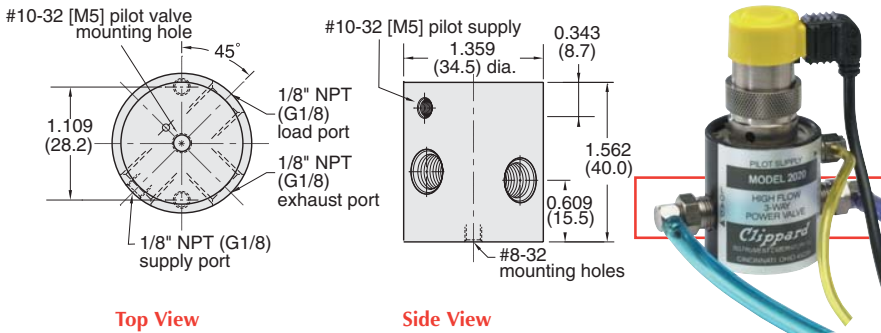


3-Way Normally-Closed Pressure Piloted Valve



Designed to be piloted by a Clippard EV or ET manifold mount electronic valve. Output from the EV/ET actuates the valve to produce outputs up to 22 scfm at 100 psig. Combines low wattage, long life and cool running of the EV/ET valves with quick response and high flow of Clippard booster type valves.

The 2020 and 2021 are identical in all respects except one. The 2020 has an external #10-32 (M5) port for the pressure supply to the EV/ET electronic pilot valve. The 2021 has an internal pressure supply to the EV/ET.



Top View

Side View



2020 shown with ET Pilot Valve and external pilot supply

Medium: Air

Input Pressure: 30 to 100 psig/2.7 to 7 bar max.

Air Flow: 22 scfm @ 100 psig; 620 l/min @ 6 bar

Pilot Pressure: 60% of supply pressure, min.

Response Time: Approx. 20 milliseconds

Mounting: Mounting holes provided

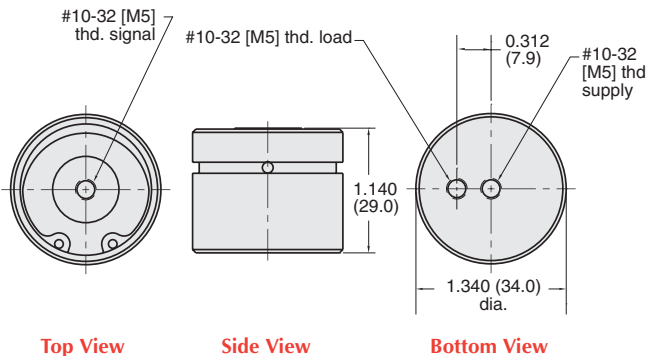
Materials: Anodized aluminum, stainless steel

Part No.	Description
2020	Piloted Valve, 1/8" NPT
2020-MG	Piloted Valve, G1/8
2021	Piloted Valve, 1/8" NPT
2021-MG	Piloted Valve, G1/8

Pressure Piloted Snap Action Amplifying Valve



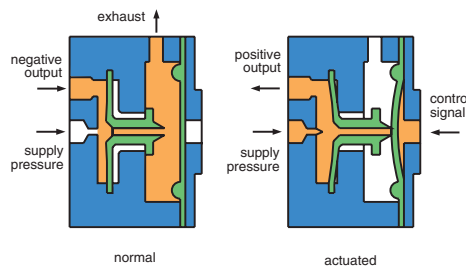
Provides a sharp, clean output signal, even with slow-changing pressure input signals; output is stabilized without chatter or oscillation



Top View

Side View

Bottom View



normal

actuated

Medium: Air

Input Pressure: 3 to 100 psig/0.2 to 7 bar max.

Minimum Pilot Pressure: 1.5" H₂O psig

Maximum Pilot Pressure: 1 psig (28" H₂O")

Air Flow: 0.18 scfm @ 100 psig; 5 l/min @ 6 bar

Bleed Orifice Diameter: 0.010"

Part No.	Description
3200-A	Amplifying Valve, #10-32
3200-A-M5	Amplifying Valve, M5