Humphrey 125 Series Air-Piloted Valves

Humphrey 125 Series air-piloted valves are simple, reliable, 2-position, pressure- operated, spring- and pressure-return, 2-way or 3-way valves offering high flow rates (27.5 scfm at 125 psig) and fast cycling (to 600 cpm). They feature a short stroke for fast response.

These small, lightweight, double diaphragm poppet, "no-stick" valves require no lubrication and are ideal for use with instrument air or other media which prohibit lubrication. The use of lubrication, however, will not prevent a 125 Series valve from functioning if the lubricant is varied or removed.

125 Series air-piloted valves have no sliding seals subject to cuts, metal seals subject to scratches, or O-rings subject to damage or replacement, so they are ideal for use with contaminated media and are unaffected by compressor varnish.

These versatile and economical valves can be mounted in any position.

125A 125A-3-10-21

Model 125A is a normally closed 0.125-inch orifice valve. For use with low-pressure pilot signals, specify "w/pilot booster."

125A 125A-3-11-21

Model 125A is a normally open 0.125-inch orifice valve. Furnished with pilot booster.

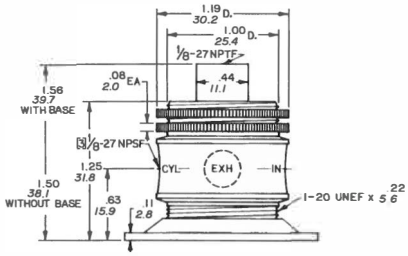
The Valve may also be used as:

Directional: Supply pressure to CYL port (Open to IN).

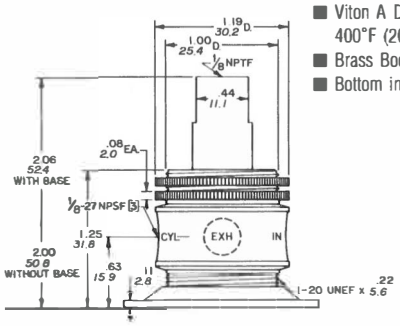
Two-pressure selector: High pressure to EXH port (75 psig max.). Low pressure to IN port (50 psig max.). Ensure adequate pilot pressure.

Normally closed: Supply pressure to EXH port.

125NC



125NO



Base: (all) — 1.75 Sq. w/four 0.22 D. holes on 1.25 Sq. centers

Options for 125 Series Air-Piloted Valves

- Mounting Base, Code 21.
- Viton A Diaphragm for resistance to mild chemicals and for sustained temperatures to 400°F (204.4°) and intermittent temperatures to 600°F (315.5°).
- Brass Body.
- Bottom inlet for normally closed models .

125AA

125AA-3-10-20

Model 125AA is a normally closed, 3-way or "detented" 3-way air-piloted valve. Its internal compensating orifice maintains actuated position after momentary pilot signal, maintains "trapped" pilot pressure to compensate for minor leaks, and speeds both the opening and closing response time.

Specifications

MEDIA:
Compressed Air (Consult factory for others)

PRESSURE RANGE:

125A NC: 0 to 125 psig (0 to 8.6 bars)

125A NC with booster: 25 to 125 psig (1.7 to 8.6 bars)

125A NO, 125AA: 10 to 125 psig (.7 to 8.6 bars)

TEMPERATURE RANGE:
–20 to 225°F (–28.9 to 107.2°C)

OPERATING SPEEDS:
To 600 CPM

MATERIALS:
Zinc Die Cast, Zinc Plated Steel, Aluminum, Brass, Stainless Steel, Buna N

LUBRICATION ..... Not required
FILTRATION ..... Not required

Air Flow to Atmosphere

MODEL	25 PSIG CFM	(1.7 BARS) LPM	125 PSIG CFM	(8.6 BARS) LPM
All	4.5	127.3	24	679.2

Weight

ACTUAL LBS	KGS
.20	.09

Fill/Exhaust Times (Seconds)

	SUPPLY PRESSURE							
	At 50 psig (3.5 bars)				At 100 psig (7.0 bars)			
	Chamber Fill 0-40 psig (0-2.8 bars)		Exhaust 50-10 psig (3.5-.7 bars)		Chamber Fill 0-80 psig (0-5.5 bars)		Exhaust 100-20 psig (7.0-1.4 bars)	
	10 Cubic Inches (164cc)		100 Cubic Inches (1640cc)		10 Cubic Inches (164cc)		100 Cubic Inches (1640cc)	
MODEL	FILL	EXHAUST	FILL	EXHAUST	FILL	EXHAUST	FILL	EXHAUST
125A NC	0.106	0.238	0.834	1.150	0.124	0.221	0.922	1.260
125A NO	0.144	0.113	0.825	0.924	0.127	0.155	0.850	1.230
125AA NC	0.093	0.177	0.779	1.090	0.111	0.193	0.901	1.280

VALVED PRESSURE		25 psig	1.7 bars	75 psig	5.2 bars	125 psig	8.6 bars
PILOT PRESSURE							
MODEL	125A NC	21.6	1.5	36.0	2.5	51.5	3.6
	125A NO	27.3	1.9	53.6	3.9	88.2	6.1
	125AA	20.0	1.4	34.8	2.4	49.7	3.4