

#### SPECIALTY COMPONENTS

### **PV-1**

Miniature pulse valve, a normally open 3-way valve that closes shortly after being pressurized and remains closed until supply

pressure is exhausted and repressurized. Widely used in control circuits.



Medium: air **Input Pressure:** 20 to 150 psig max. Mounting: 1/8 NPT thread; nut furnished Ports: Inlet - 10-32 female & 1/8 male,

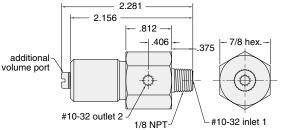
Outlet - 10-32 female **Exhaust:** To atmosphere through hole **Volume Chamber:** 10-32

**Operation:** Converts a continuous supply of inlet air into a pulse of approximately 100 milliseconds

Response: 300 cycles per minute; time delay may be increased by adding standard Clippard volume chambers not to exceed 3 cu. in.

Temperature Range: 32° to 230° F Construction: Body - brass, Seals - Buna-N rubber, Spring - stainless steel, Poppet - Delrin®





PV-1P

Miniature pulse valve, a normally open 3-way valve that closes shortly after being pressurized and remains closed until supply pressure is

2.281

exhausted and repressurized. Widely used in control circuits.

Mounting: 1/8 NPT thread; nut furnished Ports: Inlet & Outlet - combinations 10-32 female and 1/8 NPT male

Exhaust: To atmosphere through hole Volume Chamber: 10-32

Input Pressure: 20 to 150 psig max.

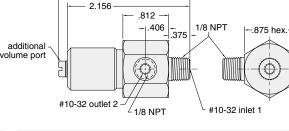
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MPS-2

Normally closed 2-way poppet valve miniature pilot sensor, for use with pressure piloted control circuits, can repeatedly detect a position

within .002" properly mounted. In jigs or fixtures it will signal correct position and start-ok to control circuit.



Stem Travel: 1/16" max. will open and close in as little as .0005"

Input Pressure: 300 psig max.

Air Flow: @50 psig - 3 SCFM @100 psig - 6 SCFM

Force For Full Stem Travel: 7 oz. nominal

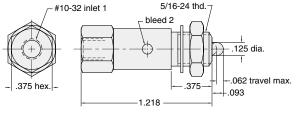
Mounting: 15/16-24 thread Nut and lockwashers furnished

Ports: Inlet -10-32,

Bleed -hole to atmosphere

Temperature Range: 32° to 230° F





MPS-2P

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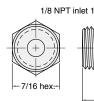
Force For Full Stem Travel: 7 oz. nominal

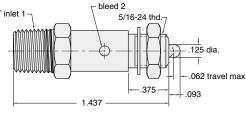
Mounting: 15/16-24 thread Nut and lockwashers furnished

Ports: Inlet -1/8 NPT male; bleed -hole to atmosphere

Temperature Range: 32° to 230° F







## **SPECIALTY COMPONENTS**



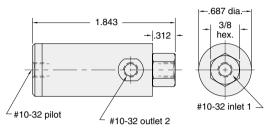
# WDV-2

2-way normally closed poppet with air pilot.

When valve closes a spring biased internal piston draws back a small volume on outlet side

(approx. 6-7 inches in 1/8 I.D. tube) thus preventing overflow or dribbles. Ideal for use in quenching or water spray applications.







Medium: Water or other light liquids

**Input Pressure:** 100 psig max.

Pilot Pressure: 25 psig min.

Flow: 74 cu. in. H<sub>2</sub>O per min. @ 80 psig

Drawback: .07 cu. in. (1.2 ml)

Mounting: Mounts inline

Ports: Inlet - 1 /8 NPT, Outlet - 10-32,

Pilot - 10-32

Temperature Range: 32° to 230° F



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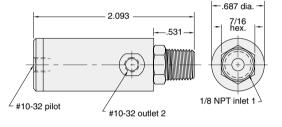
Mounting: Mounts inline

Ports: Inlet - 1 /8 NPT, Outlet - 10-32,

Pilot - 10-32

Temperature Range: 32° to 230° F





5/16-24 thd.

4.125

MWV-1

Normally closed 2-way poppet whisker valve

for use with bleed pressure piloted control circuits. Coil spring stainless steel whisker is easily replaceable and can be formed to different shapes.



Medium: Air

Input Pressure: 150 psig max.

Air Flow: @50 psig - 1.0 SCFM @100 psig - 1.5 SCFM

Force For Full Stem Travel: 1/4 oz. approx.

Mounting: 5/16-24 male thread Nut and lockwashers furnished

**Ports:** Inlet - 10-32

Temperature Range: 32° to 230° F

Bleed: To atmosphere around whisker stem Whisker: Stainless steel, approx. 3" length

Replaceable (Part Number 12375)

Medium: Air



Normally closed 2-way poppet whisker valve for use with bleed pressure piloted control circuits. Coil spring stainless steel whisker is easily replaceable

.312---250

and can be formed to different shapes.

#10-32 inlet 1



Input Pressure: 150 psig max.

Air Flow: @50 psig - 1.0 SCFM

@100 psig - 1.5 SCFM

Force For Full Stem Travel: 1/4 oz. nominal

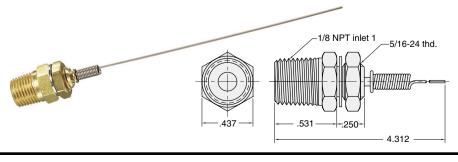
Mounting: 5/16-24 male thread Nut and lockwashers furnished

Ports: Inlet - 1/8 NPT

Temperature Range: 32° to 230° F

Bleed: To atmosphere around whisker stem

Whisker: Stainless steel, approx. 3" length Replaceable (Part Number 12375)



## **SPECIALTY COMPONENTS**

#### Replaceable miniature air filter with MAF-1 element 4.250 .687 .500 flats -/8 NPT inlet .687 #10-32 thd. sq. alt. inlet .343 .156 1/8 NP clean-out valve outlet

**Medium:** Air only Filtration: 35 micron

**Input Pressure:** 0-250 psig max. Air Flow: @50 psig - 5.0 SCFM @100 psig - 9.0 SCFM

**Material:** Brass

Mounting: Direct or inline

Ports: Inlet - OD - 1/8 NPT male thread,

ID - tapped for 10-32 fitting, Outlet - 1/8 NPT

Temperature Range: 32° to 230° F

Cleanout: Press clean-out valve stem periodically to remove accumulated water. For complete cleaning, filter body unscrews at point "A" without disturbing piping. DO NOT DISASSEMBLE UNDER PRESSURE. Remove screw and filter element to clean or replace

Uses replacement filter unit, part #12145.

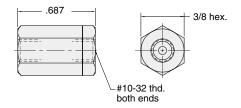
12382

Low pressure drop, concentric, chemically inert 35-micron filter elements Material: Sintered bronze

## MAC

**Inline fixed orifice air chokes,** each choke is calibrated for precise flow





Medium: Air **Material:** Brass

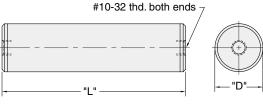
Working Range: 0-300 psig max. Temperature Range: 32° to 230° F

Hole dia.	Color code		
.0135	yellow		
.010	green		
.0075	blue		
.006	red		
	.0135 .010 .0075		

## MAT-

Inline volume chamber for providing time delay in pneumatic circuits





Medium: Air only **Material:** Brass

Input Pressure: 150 psig max.

Mounting: Direct or inline; Mounting clamp furnished with MAT-2.0 and MAT-4.0

Ports: tapped for 10-32 fitting Temperature Range: 32° to 230° F

Volume CU. IN.	Volume Chamber
0.1	MAT1
0.25	MAT25
0.50	MAT50
1.0	MAT-1.0
1.2	R-821
2.0	MAT-2.0
2.4	R-821 (2)
3.6	R-821 (3)
4.0	MAT-4.0

The time delay of the PV-1, PV-1P and R-711 may be increased by adding standard Clippard volume chambers. The chart to the left shows the TIME versus VOLUME for these combinations.

Dash #	Bore	"L"	"D"	Cu.ln	
.1	3/8	1.265	.437	0.1	
.25	3/8	2.640	.437	0.25	
.5	9/16	2.390	.625	0.5	
1.0	9/16	4.390	.625	1.0	
2.0	15/16	3.328	1	2.0	
4.0	15/16	6.234	1	4.0	

Volume	PV-1	R-821
0	0.042	0.117
.1	0.074	0.180
.25	0.124	0.245
.5	0.210	0.350
1.0	0.390	0.450
1.2	0.580	0.700
2.0	0.760	1.000
2.4	0.950	1.300
3.6	1.200	1.900
4.0	1.500	N.R.

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		1.8									
		1.0									
		1.6									
										/	
		1.4								/	
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		0.6								_ '	V-1
										R-	711
		0.4									
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		_									
		0	.1	.2	5 .5	5 1.	0 1.	2 2	2 2.	4 3	.6 4.0
	Volume - CU. IN.										

R-821 volume charers are shown in the Modular Section of this catalog

#### **AIR INDICATORS**



# **IND-1-WH**

**Single Pin Air Indicator** plunger type (when extended white pin display signals "on")

062-

.438

1/4-40 thd.

.080 dia.-

.055



Medium: Air only

Input Pressure: 150 psig max.

Minimum Actuation Pressure: 12 psig (approx)

Response: approx. 10 ms at 50 psig
Filtration: 40 micron recommended
Mounting: Panel mount 1/4 dia. hole.
1/4-40 thd. nuts provided

Ports: Inlet - 10-32 female

Temperature Range: 32° to 230° F Maximum Panel Thickness: 3/16"





**Single Pin Air Indicator** plunger type (when extended white pin display signals "on")



Medium: Air only

**Input Pressure:** 150 psig max. **Pressure:** 12 psig (approx)

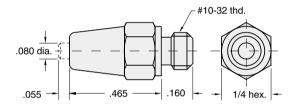
**Response:** approx. 10 ms at 50 psig **Filtration:** 40 micron recommended

Mounting: Inline

Ports: Inlet - 10-32 male

Temperature Range: 32° to 230° F





**Ordering Information** 

Specify display color by adding two of the following letters to the end of the IND-3 series part #:

nut (2) supplied

#10-32 thd.

-187

5/16 hex.-

1/4 hex.



WH - White



YL - Yellow



**Multi Pin Air Indicator** plunger type (when extended 7-pin color display signals "on")



Medium: Air only
Input Pressure: 150 psig max.

**Medium:** Air only

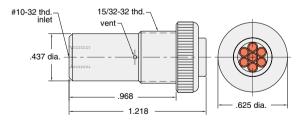
Minimum Actuation Pressure: 15 psig (approx)

**Response:** approx. 10 ms at 50 psig **Filtration:** 40 micron recommended

Mounting: Panel mount in hole. 15/32-32 nut and lockwasher provided

Ports: Inlet - 10-32 female Maximum Panel Thickness: 3/16" Temperature Range: 32° to 230° F

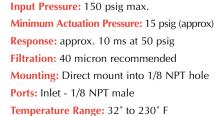




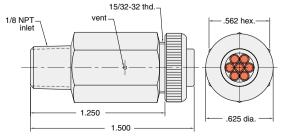
**IND-3P -** □

Multi Pin Air Indicator plunger type (when extended 7-pin color display signals "on")









## **HEAVY DUTY LIMIT VALVES**

### LVA-2

2-way poppet normally closed heavy duty air limit valve



# LVA-3

3-way poppet normally closed heavy duty air limit valve



# LVAO-2

2-way normally open heavy duty air limit valve



## LVAO-3

3-way poppet normally open heavy duty air limit valve



These valves feature rugged construction to withstand heavy use. A zinc alloy die cast actuator head with a hardened steel shaft in a bronze bearing is mated to a solid aluminum valve body. Inside is a Clippard series cartridge valve (MJV-2C or 3C, MJVO 2C or 3C) made of brass and stainless steel with Buna-N seals. Valve cartridge is easily replaced in minutes. Three different style actuator arms are available on next page.

#### Medium: Air

**Stem Travel:** Actuator arm may move 50° in either direction

Torque to Actuate: 3 in./lbs.

Actuation Range: 0-23° Off, 23-50° On

Maximum travel 50°

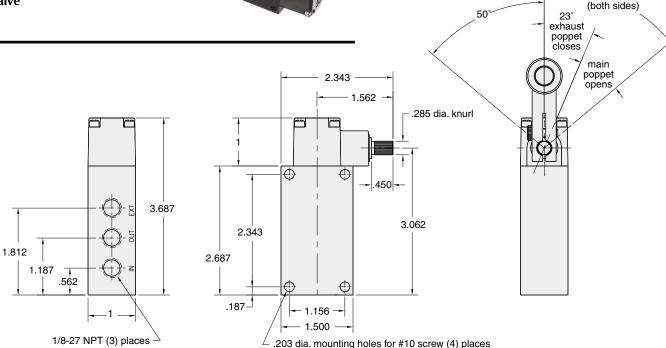
Temperature Range: 32° to 230° F

Mounting: Four 13/64" dia. mounting holes provided in valve body for use with #10 screw, or for tapping 1/4-20 by customer

Ports: Inlet - 1/8-27 NPT, Outlet - 1/8-27 NPT, Exhaust - 1/8-27 NPT for convenience in porting away exhaust air or attaching muffler; it should not be restricted; exhaust port is not used on 2-ways

at rest position

max. deflection



# **HEAVY DUTY LIMIT VALVES**



# **AR-K**

**Roller actuator arm** for Clippard heavy duty air limit valves

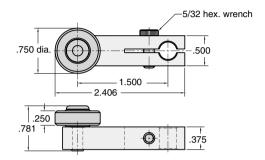
Arm: Aluminum

Roller: Hardened steel

**Temperature Range:** 32° to 230° F

remperature kange. 32 to 230 T





Mounting: Slotted mounting clamp tightens onto limit valve with 5/32" hex wrench; may be positioned on limit valve shaft in any direction within a 360° circle

# **AR-L**

**Adjustable roller arm** for Clippard heavy duty air limit valves

Arm: Aluminum base with steel extendable arm

Roller: Hardened steel

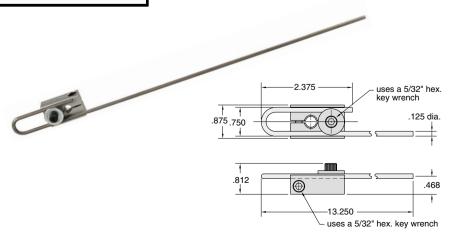
Adjustment: 1.0 to 3.5 in.

Temperature Range: 32° to 230° F

Mounting: Slotted mounting clamp tightens onto limit valve with 5/32" hex. wrench; may be positioned on limit valve shaft in any direction within a 360° circle.

# AR-M

**Adjustable rod actuator arm** for Clippard heavy duty air limit valves



Arm: Steel 1/8" rod 13 inches long retained by screw clamp; the rod may be shortened and/or bent to desired shape

Mounting: Slotted aluminum mounting clamp may be positioned on limit valve shaft in any direction within a 360° circle

Temperature Range: 32° to 230° F