

2-Way Miniature Direct Acting Valves

1/8" NPT Brass and Stainless Steel



Applications

- Instrumentation Equipment
- Analyzers and Diagnostic Equipment
- Medical and Dental Equipment
- Spraying Equipment
- Lubrication Equipment
- Beverage Dispensing
- Oil burners
- Humidification and Misting Equipment
- Mobile Fuel Shut off
- Textile and Dry Cleaning Equipment
- Transit Industry Pneumatic Controls
- Floor Cleaners
- Welding Equipment

General Description

Parker offers 2-Way Miniature Direct Acting Valves in Normally Closed and Normally Open constructions. Valves are offered with either 303 Stainless Steel bodies with FKM seals or Brass bodies with NBR seals.

Standard Materials of Construction

- **Body:** Brass or Stainless Steel (303)
- **Seals:** NBR, FKM
- **Sleeve Assembly:** 305 Stainless Steel and 430F Stainless Steel
- **Plunger:** 430F Stainless Steel
- **Flux Plate:** Plated Steel
- **Housing:** Plated Steel
- **Integrated Coil Encapsulant:** Nylon
- **Spring:** 18-8 Stainless Steel

Compatible Fluids

Lubricated Air, Inert gases, Water, Light Oil (300 SSU maximum) and additional fluids compatible with materials of construction.

Installation

Valves can be mounted in any position. The preferred orientation is vertical and upright.

Use of non-lubricated gaseous media will substantially limit valve life.

Mechanical Characteristics

Mounting	Two 8-32 tapped holes in bottom of valve body standard. A universal mounting bracket (B19.001MSP) is available
Coil Classifications	Class B Molded Tab coil Class B Taped Leaded Coil <i>AC Coils have a full wave bridge rectifier</i>
Agency Approvals	UL and CSA Component Recognition
Maximum Ambient Temperature	68°F for continuous duty cycle
Weight	6 oz.
Cycle Rate	Up to 600 cycles per minute



2-Way Miniature Direct Acting Valves

1/8" NPT Brass and Stainless Steel

Product Specifications

2-Way Normally Closed - Brass Body and NBR Seals

Port Size NPT (in)	Orifice Size (in)	Flow Factor Cv	Operating Pressure Differential (MOPD) psi		AC/DC Watts*	Max. Media Temp °F	Seal	Pressure Vessel Number	Reference	
			Min	Air, Inert Gas, Water & Light Oil (300 SSU)					Coil Chart	Valve
1/8	3/64"	0.05	0	500	6	100°F	NBR	3121BBN1EN00	13	Below
1/8	1/16"	0.09	0	300	6	100°F	NBR	3121BBN1GN00	13	Below
1/8	5/64"	0.13	0	200	6	100°F	NBR	3121BBN1JN00	13	Below
1/8	3/32"	0.18	0	175	6	100°F	NBR	3121BBN1LN00	13	Below
1/8	1/8"	0.24	0	100	6	100°F	NBR	3121BBN1NN00	13	Below

2-Way Normally Open - Brass Body and NBR Seals

Port Size NPT (in)	Orifice Size (in)	Flow Factor Cv	Operating Pressure Differential		AC/DC Watts*	Max. Media Temp °F	Seal	Pressure Vessel Number	Reference	
			Min	Air, Inert Gas, Water & Light Oil (300 SSU)					Coil Chart	Valve
1/8	3/64"	0.05	0	200	6	100°F	NBR	3129BBN1ENAD	13	Below
1/8	1/16"	0.09	0	150	6	100°F	NBR	3129BBN1GNAD	13	Below
1/8	5/64"	0.13	0	80	6	100°F	NBR	3129BBN1JNAD	13	Below
1/8	3/32"	0.18	0	40	6	100°F	NBR	3129BBN1LNAD	13	Below

2-Way Normally Closed - 303 Stainless Steel Body and FKM Seals

Port Size NPT (in)	Orifice Size (in)	Flow Factor Cv	Operating Pressure Differential		AC/DC Watts*	Max. Media Temp °F	Seal	Pressure Vessel Number	Reference	
			Min	Air, Inert Gas, Water & Light Oil (300 SSU)					Coil Chart	Valve
1/8	3/64"	0.05	0	500	6	100°F	FKM	3121BSN1EV00	13	Below
1/8	1/16"	0.09	0	300	6	100°F	FKM	3121BSN1GV00	13	Below
1/8	5/64"	0.13	0	200	6	100°F	FKM	3121BSN1JV00	13	Below
1/8	3/32"	0.18	0	175	6	100°F	FKM	3121BSN1LV00	13	Below
1/8	1/8"	0.24	0	100	6	100°F	FKM	3121BSN1NV00	13	Below

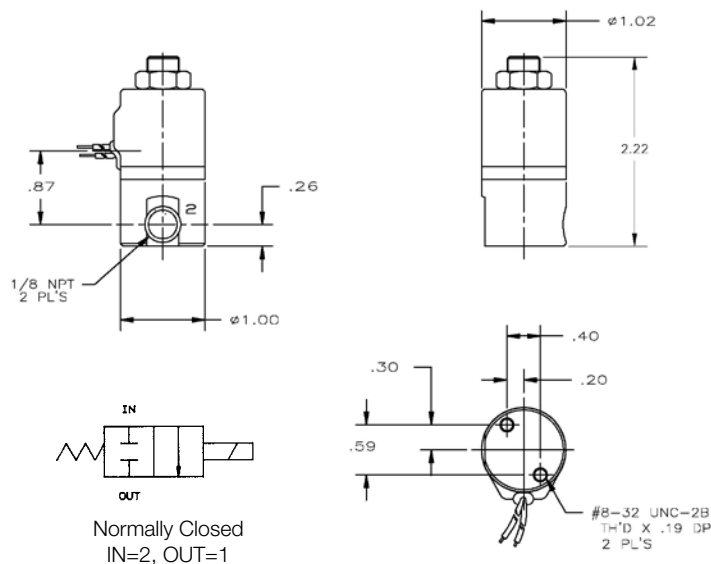
2-Way Normally Open - 303 Stainless Steel Body and FKM Seals

Port Size NPT (in)	Orifice Size (in)	Flow Factor Cv	Operating Pressure Differential		AC/DC Watts*	Max. Media Temp °F	Seal	Pressure Vessel Number	Reference	
			Min	Air, Inert Gas, Water & Light Oil (300 SSU)					Coil Chart	Valve
1/8	3/64"	0.05	0	200	6	100°F	FKM	3129BSN1EVAD	13	Below
1/8	1/16"	0.09	0	150	6	100°F	FKM	3129BSN1GVAD	13	Below
1/8	5/64"	0.13	0	80	6	100°F	FKM	3129BSN1JVAD	13	Below
1/8	3/32"	0.18	0	40	6	100°F	FKM	3129BSN1LVAD	13	Below

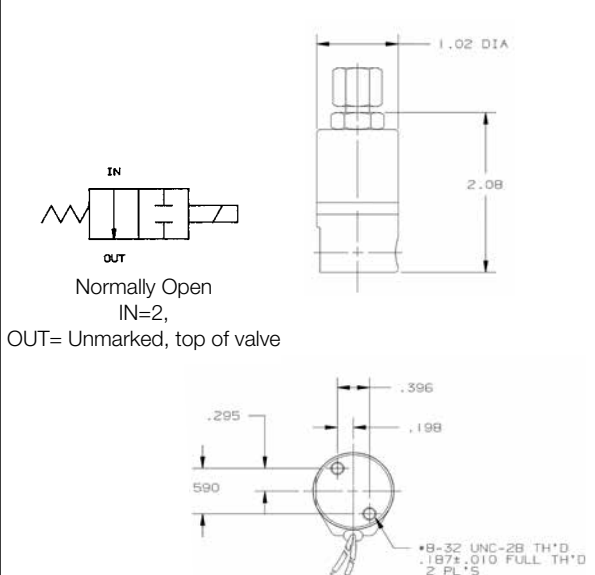
* 24/50-60 Hz = 7.5 Watts

Dimensions

Normally Closed



Normally Open



3-Way Miniature Direct Acting Valves

1/8" Brass and Stainless Steel



Applications

- Instrumentation Equipment
- Analyzers and Diagnostic Equipment
- Medical and Dental Equipment
- Welding Equipment
- Spraying Equipment
- Lubrication Equipment
- Beverage Dispensing
- Oil Burners
- Humidification and Misting Equipment
- Textile and Dry Cleaning Equipment
- Air Horns
- Irrigation Equipment
- Rail Braking Systems
- Transit Industry Pneumatic Controls

General Description

Parker offers 3-Way Miniature Direct Acting Valves suitable for low to medium pressure applications. Available in Normally Closed or Universal operation. Suitable for some vacuum applications. Valves are offered with either 303 Stainless Steel bodies with FKM seals or Brass bodies with NBR seals.

Standard Materials of Construction

- **Body:** Brass or Stainless Steel (303)
- **Seals:** NBR, FKM
- **Sleeve Assembly:** 305 Stainless Steel and 400 Series Stainless Steel
- **Plunger:** 430F Series Stainless Steel
- **Flux Plate:** Plated Steel
- **Housing:** Plated Steel
- **Integrated Coil Encapsulant:** Nylon
- **Spring:** 18-8 Stainless Steel

Compatible Fluids

Lubricated Air, Inert Gases, Water, Light Oil (300 SSU maximum) and additional fluids compatible with materials of construction.

Installation

Valves can be mounted in any position. The preferred orientation is with the coil vertical and upright.

Use of non-lubricated gaseous media will substantially limit valve life.

Mechanical Characteristics

Mounting	Two 8-32 tapped holes in bottom of valve body standard. A universal mounting bracket (B19.001MSP) is available
Coil Classifications	Class B Integrated Tab coil Class B Taped Leaded Coil <i>AC Coils have a full wave bridge rectifier</i>
Agency Approvals	UL and CSA Component Recognition
Maximum Ambient Temperature	68°F for continuous duty cycle
Weight	8 oz.
Cycle Rate	Up to 600 cycles per minute



3-Way Miniature Direct Acting Valves

1/8" Brass and Stainless Steel

3-Way Miniature Direct Acting - Normally Closed - Brass Body with NBR Seals

Port Size NPT (in)	Orifice Size (in)		Flow Factor (Cv)		Operating Pressure Differential		AC/DC Watts*	Max. Media Temp °F	Pressure Vessel Number	Reference	
	Body	Sleeve	Body	Sleeve	Min	Air, Inert Gas, Water & Light Oil (300 SSU)				Coil Chart	Valve
1/8	3/64"	3/64"	0.05	0.05	0	150	6	100°F	3131BBN1ENAD	13	Below
1/8	1/16"	1/16"	0.09	0.09	0	100	6	100°F	3131BBN1GNAD	13	Below
1/8	5/64"	1/16"	0.13	0.09	0	80	6	100°F	3131BBN1JNAD	13	Below
1/8	3/32"	1/16"	0.18	0.09	0	60	6	100°F	3131BBN1LNAD	13	Below
1/8	1/8"	1/16"	0.24	0.09	0	40	6	100°F	3131BBN1NNAD	13	Below

3-Way Miniature Direct Acting Multipurpose - Brass Body with NBR Seals

Port Size NPT (in)	Orifice Size (in)		Flow Factor (Cv)		Operating Pressure Differential		AC/DC Watts*	Max. Media Temp °F	Pressure Vessel Number	Reference	
	Body	Sleeve	Body	Sleeve	Min	Air, Inert Gas, Water & Light Oil (300 SSU)				Coil Chart	Valve
1/8	3/64"	3/64"	0.05	0.05	0	100	6	100°F	3133BBN1ENAD	13	Below
1/8	1/16"	1/16"	0.09	0.09	0	80	6	100°F	3133BBN1GNAD	13	Below
1/8	5/64"	1/16"	0.13	0.09	0	60	6	100°F	3133BBN1JNAD	13	Below

3-Way Miniature Direct Acting - Normally Closed - 303 Stainless Steel Body with FKM Seals

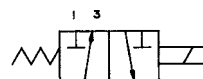
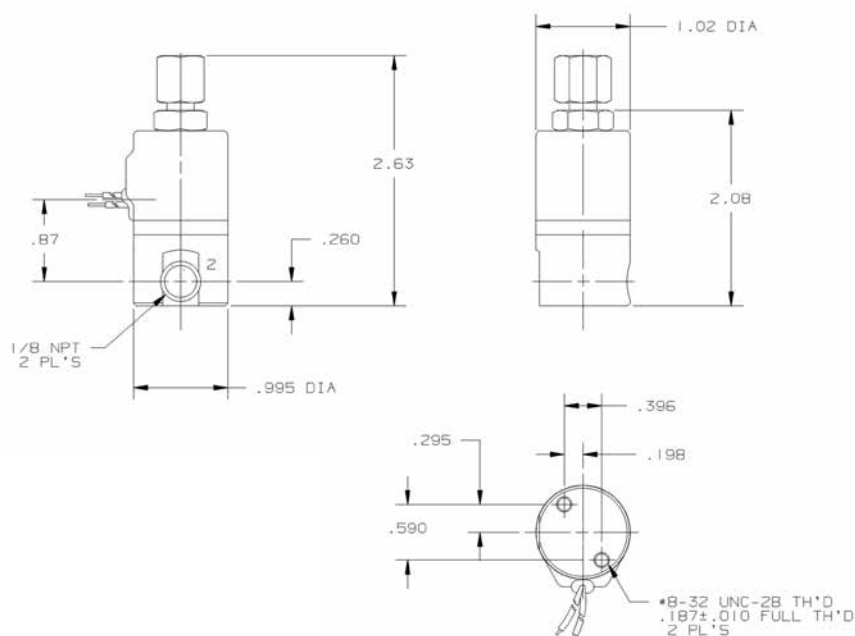
Port Size NPT (in)	Orifice Size (in)		Flow Factor (Cv)		Operating Pressure Differential		AC/DC Watts*	Max. Media Temp °F	Pressure Vessel Number	Reference	
	Body	Sleeve	Body	Sleeve	Min	Air, Inert Gas, Water & Light Oil (300 SSU)				Coil Chart	Valve
1/8	3/64"	3/64"	0.05	0.05	0	150	6	100°F	3131BSN1EVAD	13	Below
1/8	1/16"	1/16"	0.09	0.09	0	100	6	100°F	3131BSN1GVAD	13	Below
1/8	5/64"	1/16"	0.13	0.09	0	80	6	100°F	3131BSN1JVAD	13	Below
1/8	3/32"	1/16"	0.18	0.09	0	60	6	100°F	3131BSN1LVAD	13	Below
1/8	1/8"	1/16"	0.24	0.09	0	40	6	100°F	3131BSN1NVAD	13	Below

3-Way Miniature Direct Acting Multipurpose - 303 Stainless Steel Body with FKM Seals

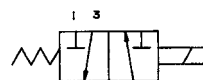
Port Size NPT (in)	Orifice Size (in)		Flow Factor (Cv)		Operating Pressure Differential		AC/DC Watts*	Max. Media Temp °F	Pressure Vessel Number	Reference	
	Body	Sleeve	Body	Sleeve	Min	Air, Inert Gas, Water & Light Oil (300 SSU)				Coil Chart	Valve
1/8	3/64"	3/64"	0.05	0.05	0	100	6	100°F	3133BSN1EVAD	13	Below
1/8	1/16"	1/16"	0.09	0.09	0	80	6	100°F	3133BSN1GVAD	13	Below
1/8	5/64"	1/16"	0.13	0.09	0	60	6	100°F	3133BSN1JVAD	13	Below

* 24/50-60 Hz = 7.5 Watts

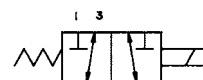
Dimensions



Normally Closed



Normally Open



Multipurpose



3000 Series Numbering System Designators

1	Series Designation	3	3000 Series
2	Operation	1	Direct Acting
3	Type	2	Two-Way
		3	Three-Way
4	Flow Pattern	1	Normally Closed
		3	Multipurpose
		9	Normally Open
5	Family	B	B
6	Body Material	B	Brass
		S	303 Stainless Steel
7	Process Connection	N	Female National Pipe Thread
8	Pipe Size	1	1/8"
9	Orifice	E	3/64"
		G	1/16"
		J	5/64"
		L	3/32"
		N	1/8"
10	Seal Material	N	NBR -Nitrile /Buna N
		V	FKM - Fluorocarbon
11-12	Mechanical Option	00	None
		AD	1/8" NPT Sleeve Adapter
		N0	Cleaned for Oxygen Service (Only with SS & FKM)
13-18	Coil & Housing	N0 M1S1	Integrated Molded, 1/4" Tab, Class B Coil
		RR T1J1	Taped Class B Coil, 12" Leads in Grommet Housing
19-20	Voltage & Power Consumption	P0	24/50-60 Hz, 7.5 Watts
		P3	120/60 Hz, 110/50 Hz, 6 Watts
		Q3	240/60 Hz, 220/50 Hz, 6 Watts
		C1	12VDC, 6 Watts
		C2	24VDC, 6 Watts

Table is for interpreting product specifications only. Consult Parker Fluid Control Division for combinations not shown in this bulletin.



Coil Chart #13

Integrated Coil



Part Number	Type of Termination	Voltage	Wattage	Class
N0M1S1P0	1/4" Tab	24/50-60	7.5	B
N0M1S1P3		120/60, 110/50	6	
N0M1S1Q3		240/60, 220/50		
N0M1S1C1		12VDC		
N0M1S1C2		24VDC		

Taped Coil in Grommet Housing



Part Number	Type of Termination	Voltage	Wattage	Class
RRT1J1P0	12" Leads	24/50-60	7.5	B
RRT1J1P3		120/60, 110/50	6	
RRT1J1Q3		240/60, 220/50		
RRT1J1C1		12VDC		
RRT1J1C2		24VDC		

How to Order*

1. Select Pressure Vessel from Direct Acting Valve page.
2. Select voltage, coil and housing desired from above chart.
3. Add together, order complete part number.

Example: 3131BSN1EVAD + N0M1S1P3 = 3131BSN1EVADN0M1S1P3

* 3000 series are not sold modularly

