

7

SERIES





# 7 Series Valves

Mid-Range Capacity, High Efficiency Valves

## General Specifications:

**Anodized Aluminum Body** with stainless steel internal parts – compatible with common media including air, inert gases, hydraulic fluids, petroleum products, and corrosive media. Brass and stainless steel bodies optional.

**Body Size:** 1.25" x 1.63"

**Maximum Operating Pressure Differential:**  
up to 250 psi

**Orifice Diameters:** Body– 3/64" to 1/4"  
Stop– 1/16" to 3/32"

**Response Time:** 8 to 10 milliseconds

**Power Consumption:** 11 watt continuous duty

**Vacuum:** Special, to 1 micron

**Port Size:** 1/8" NPT, 1/4" NPT Female

**Power Electrical Connection:** Leads and spades

**Seal Material:** Buna N, Viton, EPDM standard, others optional

**Leakage:** Bubble tight

**Coil Type:** Continuous Rating, 11 watt, Class H (185°C)  
non-molded standard

**Standard Voltages:** 24V-60 Hz, 120V-60 Hz,  
240V-60 Hz, 6, 12, 24 VDC. Other voltages  
available on request.

### Media Temperature Limitations:

Minimum - 45°F (-43°C)  
Maximum +185°F (+85°C)

**Ambient Temperature:** Standard; Max. +100°C  
for continuous duty. Special; to +115°C

**Weight:** 0.6 lbs.

**Leadwire:** 18 AWG, 18 inches long standard

## 7 Series Solenoid Valves:

New, mid-range capacity, 7 Series Solenoid Valves are designed with a powerful, but economical coil capable of handling pressures up to 250 PSI in a 2-way normally closed configuration. This versatile valve series with its overmold coil and construction performs well at high temperatures, is moisture resistant and can be configured in a low-profile option for difficult installations.

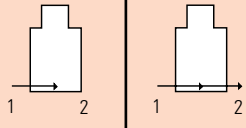
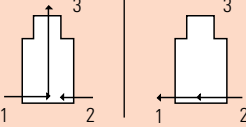
The high-performance, low-cost characteristics of the 7 Series makes them ideal for use by OEMs in automotive applications like suspension systems, emissions monitoring, fan clutch controls and control equipment, dental/ vision or medical applications, tables and beds liquid recycling systems, HVAC and many other applications.

This direct acting solenoid valve series is available in 2-way and 3-way designs, and features 1.25" x 1.63" and manifold mount body types machined from aluminum, brass or stainless steel with 1/8" or 1/4" NPT ports and orifice sizes from 3/64" to 1/4" with a standard 11 watt coil that can operate on either AC or DC service. The 7 series is available with both spade and lead connections.

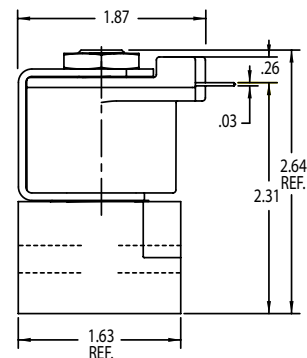


## Maximum Operating Pressure Differential (PSI)

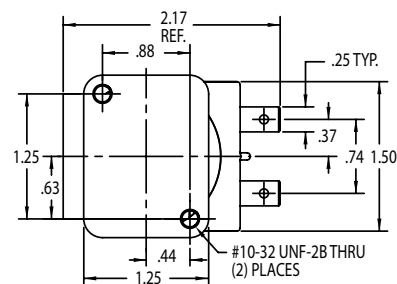
### Standard Valve Offerings

De-energized	Energized	Orif. No.	Orifice Diameter		C <sub>v</sub> Factor		Maximum Operating Pressure Differential		
			Body	Stop	Body	Stop	AC	DC	
<b>2-Way Normally Closed</b> 			2	3/64 (1.2)		.062		250 (17.25)	250 (17.25)
			4	1/16 (1.6)		.111		200 (13.80)	200 (13.80)
			6	3/32 (2.4)		.180		125 (8.60)	125 (8.60)
			8	1/8 (3.2)		.280		100 (6.90)	100 (6.90)
			9	5/32 (4.0)			75 (5.20)	50 (3.45)	
			A	3/16 (4.8)		.500	50 (3.45)	25 (1.73)	
			C	1/4 (6.4)		.750	20 (1.38)	5 (0.35)	
<b>3-Way Normally Closed Free Vent &amp; Line Conn.</b> 			W	3/64 (1.2)	1/16 (1.6)	.062	.095	150 (10.35)	150 (10.35)
			4	1/16 (1.6)	1/16 (1.6)	.111	.095	100 (6.90)	100 (6.90)
			6	3/32 (2.4)	3/32 (2.4)	.170	.170	75 (5.18)	75 (5.18)
			T	1/8 (3.2)	3/32 (2.4)	.280	.170	50 (3.45)	50 (3.45)
			A	3/16 (4.8)	3/32 (2.4)	.380	.170	20 (1.38)	20 (1.38)
			C	1/4 (6.4)	3/32 (2.4)	.670	.170	10 (0.70)	5 (0.35)

### 2-Way Normally Closed Standard Body

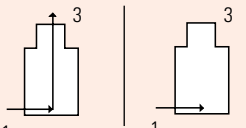
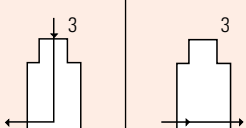
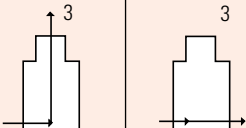
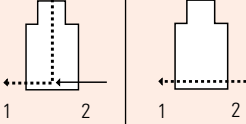


Note: Coil is oriented 90° out of position



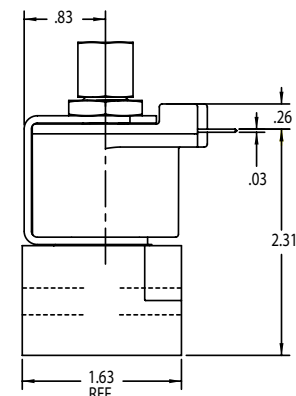
Also available with Leads

### Special Valve Offerings, Contact Factory

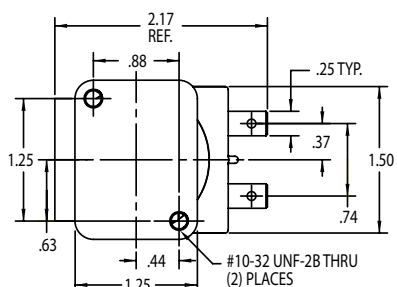
De-energized	Energized	Orif. No.	Orifice Diameter		C <sub>v</sub> Factor		Maximum Operating Pressure Differential		
			Body	Stop	Body	Stop	AC	DC	
<b>2-Way Normally Open</b> 			2		3/64 (1.2)		.054	200 (13.80)	200 (13.80)
			4		1/16 (1.6)		.107	150 (10.35)	150 (10.35)
			6		3/32 (2.4)		.150	125 (8.60)	125 (8.60)
<b>3-Way Normally Open</b> 			R	1/16 (1.6)	3/64 (1.2)	.104	.052	150 (10.35)	150 (10.35)
			S	1/8 (3.2)	1/16 (1.6)	.280	.085	100 (6.90)	100 (6.90)
			T	1/8 (3.2)	3/32 (2.4)	.280	.170	75 (5.18)	75 (5.18)
<b>3-Way Directional Control</b> 			R	1/16 (1.6)	3/64 (1.2)	.095	.052	200 (13.80)	200 (13.80)
			4	1/16 (1.6)	1/16 (1.6)	.095	.085	150 (10.35)	150 (10.35)
			6	3/32 (2.4)	3/32 (2.4)	.170	.120	125 (8.60)	125 (8.60)
			T	1/8 (3.2)	3/32 (2.4)	.280	.120	100 (6.90)	100 (6.90)
<b>3-Way Multi-Purpose</b> 			W	3/64 (1.6)	3/64 (1.2)	.052	.052	150 (10.35)	125 (10.35)
			4	1/16 (1.6)	1/16 (1.6)	.095	.095	100 (6.90)	100 (6.90)
			6	3/32 (2.4)	3/32 (2.4)	.170	.170	75 (5.18)	50 (5.18)

### 3-Way Normally Closed Line Connect

#### 2-Way Normally Open Standard Body



Note: Coil is oriented 90° out of position



Also available with Leads

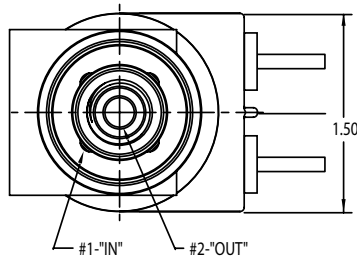
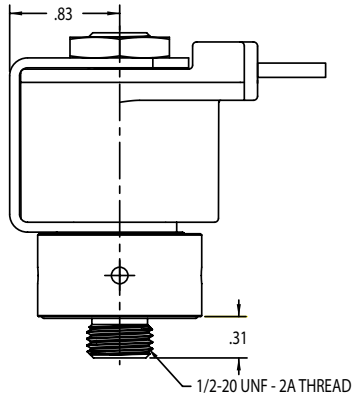
## Valve Model Number Matrix

<b>2</b> WAYS	<b>7</b> FAMILY	<b>3</b> FUNCTION	<b>3</b> COIL TYPE MOLDED	<b>2</b> PORT SIZE	<b>N</b> PORT TYPE	<b>R</b> BODY MATERIALS	<b>V</b> SEAL MATERIALS	<b>4</b> ORIFICE SIZE	<b>F</b> WATTAGE	<b>1</b> VOLTAGE
2-Way	<b>7B</b> 1-1/2" Body	<b>3</b> 2-Way Normally Closed	<b>3</b> 18" Leads	<b>1</b> 1/8"	<b>N</b> NPT Female	<b>A</b> Aluminum	<b>A</b> Buna	<b>2</b> 3/64"	<b>F</b> 11.0	<b>1</b> 120/60 VAC
3-Way	<b>7M</b> 1/2" - 20 UNF-2A Thread Manifold Mount Body	<b>3</b> 3-Way Normally Closed	<b>6</b> 1/4" Spades	<b>2</b> 1/4"	<b>D</b> Defined Elsewhere	<b>B</b> Brass	<b>E</b> EPDM	<b>4</b> 1/16"		<b>2</b> 24/60 VAC
		<b>4</b> Normally Open		<b>Q</b> Defined Elsewhere		<b>T</b> 303 Stainless	<b>V</b> Viton	<b>6</b> 3/32"		<b>3</b> 240/60 VAC
		<b>5</b> Directional Control				<b>O</b> Without Body		<b>8</b> 1/8" (3.2)		<b>5</b> 12 VDC
		<b>7</b> Multi-purpose						<b>9</b> 5/32" (4.0)		<b>6</b> 24 VDC
								<b>44</b> 1/16" x 1/16"		
								<b>66</b> 3/32" x 3/32"		
								<b>A</b> 3/16" x 1/32"		
								<b>C</b> 1/4" x 3/32"		
								<b>T</b> 1/8" x 3/32"		
								<b>W</b> 3/64" x 1/16"		

Note: Other options for voltage, wattage, body material, porting and Cv are available. Contact the factory.

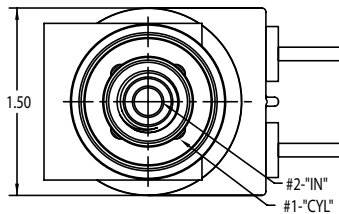
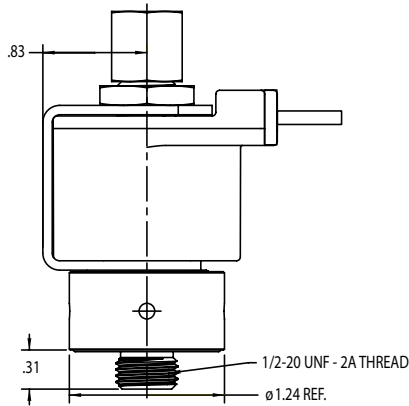
## Dimensions

### 2-Way Normally Closed 3-Way Free Vent Manifold Mount



Also available with Spades

### 3-Way Line Connect 2-Way Normally Open Manifold Mount



Also available with Spades

### Manifold Valve/ Manifold Interface

