7 SERIES

Solenoid SOLUTIONS, INC

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/50-60 Hz, 120V/50-60 Hz, 240V/50-60 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.

Valve Model Number Matrix

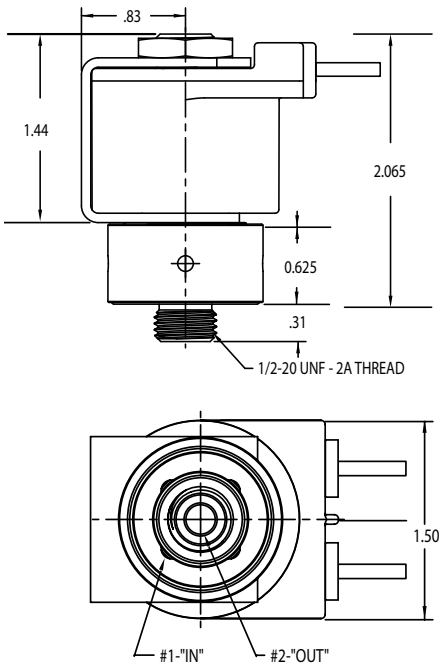
2 WAYS	7 FAMILY	3 FUNCTION	3 COIL TYPE MOLDED	—	2 PORT SIZE	N PORT TYPE	R BODY MATERIALS	—	V SEAL MATERIALS	4 ORIFICE SIZE	F WATTAGE	1 VOLTAGE
2 2-Way **3** 3-Way	**7B** 1-1/2" Body **7M** 1/2" – 20 UNF-2A Thread Manifold Mount Body	**3** 2-Way Normally Closed **3** 3-Way Normally Closed **4** Normally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

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

Dimensions

2-Way Normally Closed

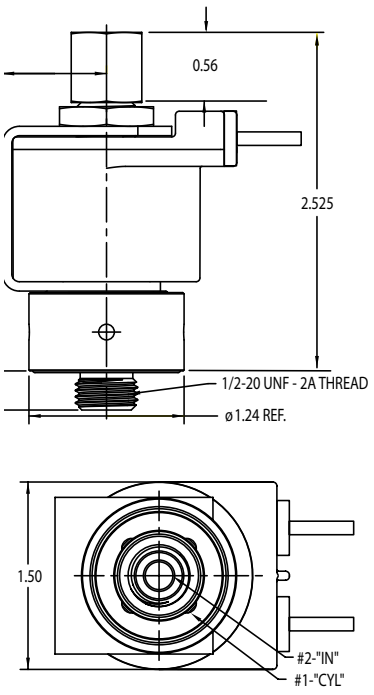
3-Way Free Vent
Manifold Mount



Also available with Spades

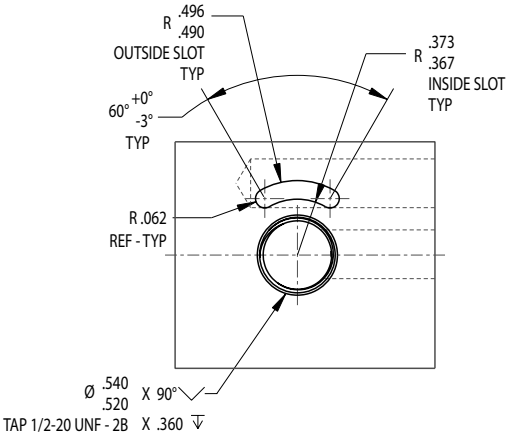
3-Way Line Connect

2-Way Normally Open
Manifold Mount



Also available with Spades

Manifold Valve/ Manifold Interface



Maximum Operating Pressure Differential (PSI)

Standard Valve Offerings

De-energized	Energized	Orif. No.	Orifice Diameter Body	Orifice Diameter Stop	C_V Factor Body	C_V Factor Stop	Maximum Operating Pressure Differential AC	Maximum Operating Pressure Differential DC
2-Way Normally Closed		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)
3-Way Normally Closed Free Vent & Line Conn.		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)

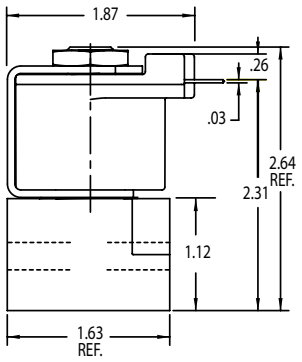
Special Valve Offerings, Contact Factory

De-energized	Energized	Orif. No.	Orifice Diameter Body	Orifice Diameter Stop	C_V Factor Body	C_V Factor Stop	Maximum Operating Pressure Differential AC	Maximum Operating Pressure Differential DC
2-Way Normally Open		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)
3-Way Normally Open		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)
3-Way Directional Control		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)
3-Way Multi-Purpose		W	3/64 (1/16)	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)

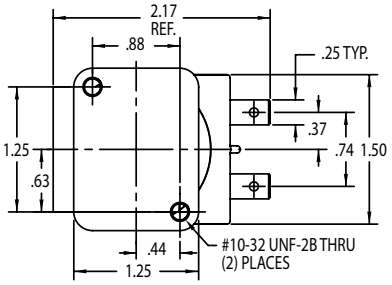
Values in parenthesis are metric. Example: inch (millimeter) – psi (bar)

2-Way Normally Closed

Standard Body



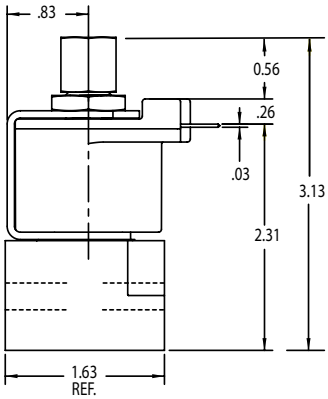
Note: Coil is oriented 90° out of position



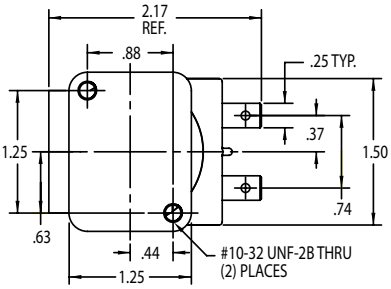
Also available with Leads

3-Way Normally Closed Line Connect

2-Way Normally Open Standard Body



Note: Coil is oriented 90° out of position



Also available with Leads