

S40 & H40 Series Solenoid Valves

Zero-Differential Piloted Piston • Stainless Steel & Brass

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Construction

Wetted Components		
Body	303 SS	Brass
Operator Tube	304 Stainless Steel	
Plunger & Tube Head	430FR Stainless Steel	
Springs	302 Stainless Steel	
Shading Ring	Copper	
Seals	Nitrile, EPDM, FKM, PTFE	



Coil Enclosures

- G Coil - 1/2" NPT Conduit Hub with 24" Lead Wires (NEMA 4/4X, IP65)
- Y Coil – DIN Form A – 18mm (NEMA 4, IP65)
- See Engineering Guide for additional coil enclosures

Electrical

Series/ Mode	Wattage		Inrush (VA)		Holding (VA)	
	DC	AC	50 Hz	60 Hz	50 Hz	60 Hz
Based on 120 VAC						
S401	10	10	46	46	21	20
S402	10	10	46	46	25	22
H401	10	10	46	46	21	20
H402	10	10	46	46	21	20

- All Coils Rated for 100% Duty Cycle
- Voltage Tolerance: ±10% from nominal

Ambient Temperature (Nominal)

- 32°F to 140°F (0°C to 60°C)

Fluid Temperature by Seal Material

- Nitrile: -40°F to 180°F (-40°C to 82°C)
- EPDM: -70°F to 295°F (-57°C to 146°C)
- FKM: -20°F to 230°F (-29°C to 110°C)
- PTFE: -320°F to 366°F (-196°C to 186°C)

Approvals*

- UL Listed (MH17608)
- UL Recognized (MH17997)
- UL Safety Shut Off (MH17608) -(S401xxxxxxxF5S)
- CSA Certified (069111_0_000)
- CE Certified

*Not available for all variations





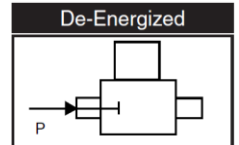
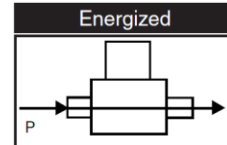
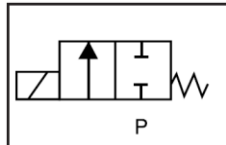
2-Way • Normally Closed & Normally Open • 1/4" to 1/2" NPT

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Normally Closed Valve Specifications (Closed when de-energized)									
Pipe Size (NPT)	Orifice Size (in)	Flow Factor (Cv)	Operating Pressure Differential (PSI)				Part Number ^② (Shown with 120 VAC Lead Wire Coil)		
			Min.	Maximum		Stainless Steel	Brass		
				Air/Gas, Liquid & Oil ^①	Steam				
				AC	DC	AC	DC		
S40 Series – Piloted Piston									
1/4	3/8	1.1	0	300	150	-	-	S401GH02N1BF5	S401GH02N9BF5
	3/8	1.1	0	300	150	50	50	S401GH02E1BF5	S401GH02E9BF5
	3/8	1.1	0	300	150	150	150	S401GH02S1BF5	S401GH02S9BF5
3/8	3/8	1.5	0	300	150	-	-	S401GH02N1CF5	S401GH02N9CF5
	3/8	1.5	0	300	150	50	50	S401GH02E1CF5	S401GH02E9CF5
	3/8	1.5	0	300	150	150	150	S401GH02S1CF5	S401GH02S9CF5
1/2	3/8	1.5	0	300	150	-	-	S401GH02N1DF5	S401GH02N9DF5
	3/8	1.5	0	300	150	50	50	S401GH02E1DF5	S401GH02E9DF5
	3/8	1.5	0	300	150	150	150	S401GH02S1DF5	S401GH02S9DF5
H40 Series – High Pressure Piloted Piston									
1/4	3/8	1.1	0	2200	2200	-	-	H401GH02Z1BF5	-
3/8	3/8	1.5	0	2200	2200	-	-	H401GH02Z1CF5	-
1/2	3/8	1.5	0	2200	2200	-	-	H401GH02Z1DF5	-

- ① S40 Series: Light Oil and #5 & #6 Heated Fuel Oils
- ① H40 Series: Light Oil Only
- ② See part number selection guide for additional voltages and variations
- 3. UL Recognized Only for Valves with MOPD >1200 PSI
- 4. MRP = 5X MOPD or 6000 PSI Max.





2-Way • Normally Closed & Normally Open • 1/4" to 1/2" NPT

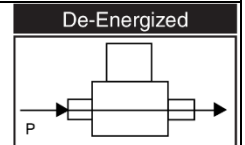
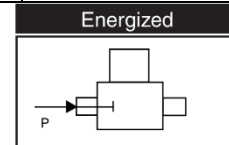
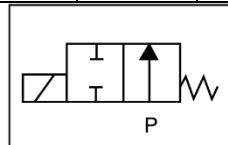
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Normally Open Valve Specifications (Open when de-energized)

Pipe Size (NPT)	Orifice Size (in)	Flow Factor (Cv)	Operating Pressure Differential (PSI)				Part Number ^② (Shown with 120 VAC Lead Wire Coil)		
			Min.	Maximum		Stainless Steel	Brass		
				Air/Gas, Liquid & Oil ^①				Steam	
				AC	DC			AC	DC
S40 Series – Piloted Piston									
1/4	3/8	0.8	0	300	150	-	-	S402GH02N1BF5	S402GH02N9BF5
	3/8	0.8	0	300	150	50	50	S402GH02E1BF5	S402GH02E9BF5
	3/8	0.8	0	300	150	150	150	S402GH02S1BF5	S402GH02S9BF5
3/8	3/8	1.0	0	300	150	-	-	S402GH02N1CF5	S402GH02N9CF5
	3/8	1.0	0	300	150	50	50	S402GH02E1CF5	S402GH02E9CF5
	3/8	1.0	0	300	150	150	150	S402GH02S1CF5	S402GH02S9CF5
1/2	3/8	1.0	0	300	150	-	-	S402GH02N1DF5	S402GH02N9DF5
	3/8	1.0	0	300	150	50	50	S402GH02E1DF5	S402GH02E9DF5
	3/8	1.0	0	300	150	150	150	S402GH02S1DF5	S402GH02S9DF5
H40 Series – High Pressure Piloted Piston									
1/4	3/8	0.8	0	2200	2200	-	-	H402GH02Z1BF5	-
3/8	3/8	1.0	0	2200	2200	-	-	H402GH02Z1CF5	-
1/2	3/8	1.0	0	2200	2200	-	-	H402GH02Z1DF5	-

- ① S40 Series: Light Oil and #5 & #6 Heated Fuel Oils
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S40 & H40 Series Part Number Selection

Valve Series	Operating Mode	Coil Housing	Coil Class	Voltage	Seal Material	Body Material/ Pipe Size	Orifice Size
①	②	③	④	⑤	⑥	⑦	⑧
S40	1	G	H	02	V	9A	F5

① Valve Series

S40	Piloted Piston
H40	High Pressure Piloted Piston

② Operating Mode

1	2-Way Normally Closed (NC)
2	2-Way Normally Open (NO)

③ Coil Type

G	1/2" NPT Conduit with 24" Lead Wires
Y	DIN (Form A – 18mm)

④ Coil Class

H	H Class Coil
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⑤ Voltage

02	120 VAC, 60 Hz; 110 VAC, 50 Hz
03	208 VAC, 60 Hz
04	240 VAC, 60 Hz; 220 VAC, 50 Hz
24	24 VAC, 50/60 Hz
15	12 VDC
16	24 VDC

⑥ Seal Material

C	EPDM (S40 Valves Only)
E	EPDM (S40 Steam Valves Only)
N	Nitrile (S40 Valves Only)
V	FKM (S40 Valves Only)
S	PTFE (S40 Steam Valves Only)
T	PTFE
Z	FKM/PTFE

⑦ Body Material/Pipe Size

9B	Brass, 1/4" NPT (S40 Valves Only)
9C	Brass, 3/8" NPT (S40 Valves Only)
9D	Brass, 1/2" NPT (S40 Valves Only)
1B	303 Stainless Steel, 1/4" NPT
1C	303 Stainless Steel, 3/8" NPT
1D	303 Stainless Steel, 1/2" NPT

⑧ Orifice Size

F5	3/8"
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⑨ Optional Suffix

(blank)	No Option
C	CE Declaration
E	CSA Certification
N	Cleaned for Oxygen Service
P	Nickel Plated Plunger & Tube
NP	Gaseous CO2
S	*UL Safety Rated (S401 Valves Only)

*Not available for all variations

800-828-0484

www.gcvalves.com

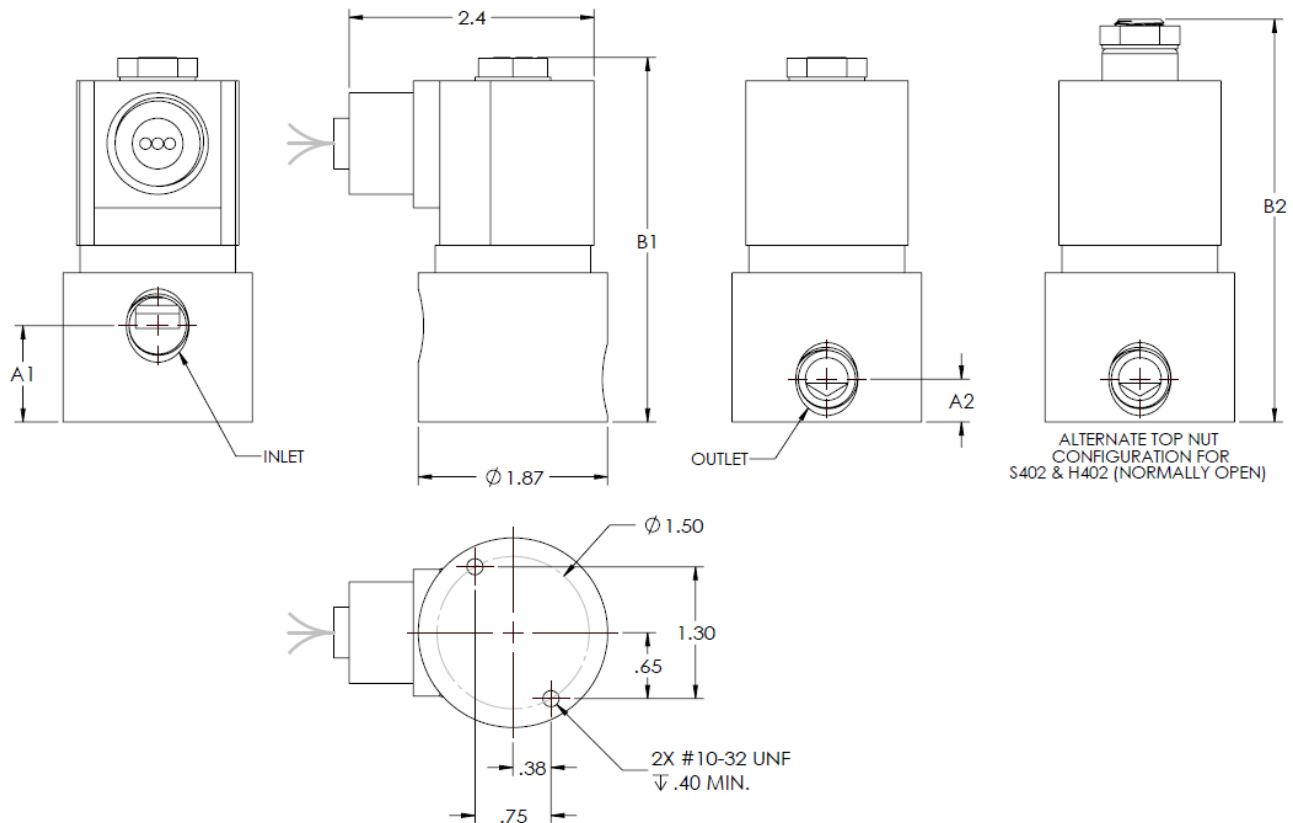
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Drawing 1

S40 & H40 Series – 1/4" to 1/2" – Stainless Steel & Brass



Pipe Size	Series/Mode	A1	A2	B1	B2	Weight
1/4" NPT	S401	0.95	0.42	3.61	n/a	1.8 lb
	H401	0.95	0.42	3.61	n/a	1.8 lb
	S402	0.95	0.42	n/a	4.10	1.8 lb
	H402	0.95	0.42	n/a	4.10	1.8 lb
3/8" NPT	S401	0.95	0.42	3.61	n/a	1.8 lb
	H401	0.95	0.42	3.61	n/a	1.8 lb
	S402	0.95	0.42	n/a	4.10	1.8 lb
	H402	0.95	0.42	n/a	4.10	1.8 lb
1/2" NPT	S401	0.97	0.54	3.69	n/a	2.0 lb
	H401	0.97	0.54	3.69	n/a	2.0 lb
	S402	0.97	0.54	n/a	4.18	2.0 lb
	H402	0.97	0.54	n/a	4.18	2.0 lb

- S40 & H40 series valves can be mounted in any position.
- Dimensions shown in inches.
- Drawing not to scale.