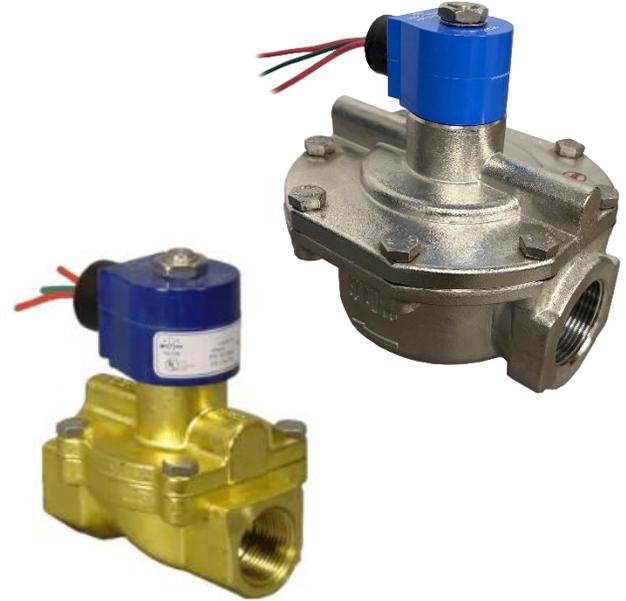


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- Page 1 – General Overview
- Page 2 – Normally Closed Valve Specifications
- Page 3 – Normally Open Valve Specifications
- Page 4 – Part Number Selection
- Pages 5-7 – Drawings

Construction

Wetted Components		
Body	316 SS	Brass
Operator Tube	304 Stainless Steel	
Plunger & Tube Head	430FR Stainless Steel	
Springs	302 Stainless Steel	
Shading Ring	Silver	Copper
Seals	Nitrile & FKM	



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
S211	9	8	36	36	14	13
S212	9	8	36	36	19	18
H211	10	10	46	46	19	18

- 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)
- 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)
- CSA Certified (069111_0_000)
- CE Certified

*Not available for all variations





2-Way • Normally Closed & Normally Open • 3/8" to 2" NPT High Performance S21 & H21 Series Solenoid Valves

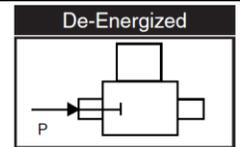
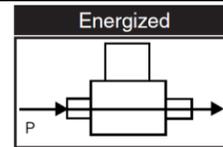
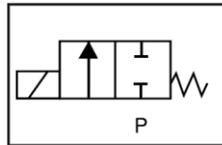
Piloted Diaphragm • Stainless Steel & Brass

Normally Closed Valve Specifications (Closed when de-energized)

Pipe Size (NPT)	Orifice Size (in)	Flow Factor (Cv)	Operating Pressure Differential (PSI)				Part Number ^① (Shown with 120 VAC Lead Wire Coil)		
			Min.	Maximum		Stainless Steel	Brass		
				Air/Gas, Liquid & Light Oil				Steam	
				AC	DC			AC	DC
3/8"	1/2	3.3	1	250	150	-	-	-	S211GH02K4CG1
	1/2	3.3	1	250	150	100	100	-	S211GH02T4CG1
	1/2	3.3	10	250	150	150	150	-	S211GH02T2CG1
	1/2	3.3	10	1400	1400	-	-	-	H211GH02Z4CG1
1/2"	1/2	3.3	1	250	150	-	-	-	S211GH02K4DG1
	1/2	3.3	1	250	150	100	100	-	S211GH02T4DG1
	1/2	3.3	10	250	150	150	150	-	S211GH02T2DG1
	1/2	3.6	10	1400	1400	-	-	-	H211GH02Z4DG1
3/4"	3/4	6.1	1	250	150	-	-	-	S211GH02K4EG5
	3/4	6.1	1	250	150	100	100	-	S211GH02T4EG5
	3/4	7.0	10	250	150	150	150	-	S211GH02T2EG5
	3/4	6.1	10	400	400	-	-	-	H211GH02Z4EG5
1"	1	13	10	250	150	-	-	-	S211GH02N4FG9
	1	13	10	250	150	150	150	-	S211GH02T2FG9
1-1/4"	1-1/2	22	10	250	150	-	-	S211GH02N1GJ5	S211GH02N4GJ5
	1-1/2	22	10	250	150	150	150	S211GH02T1GJ5	S211GH02T2GJ5
1-1/2"	1-1/2	28	10	250	150	-	-	S211GH02N1HJ5	S211GH02N4HJ5
	1-1/2	28	10	250	150	150	150	S211GH02T1HJ5	S211GH02T2HJ5
2"	1-1/2	29	10	250	150	-	-	S211GH02N1JJ5	S211GH02N4JJ5
	1-1/2	29	10	250	150	150	150	S211GH02T1JJ5	S211GH02T2JJ5

① See part number selection guide for additional voltages and variations.

- UL Recognized Only for Valves with MOPD >1200 PSI
- MRP = 5X MOPD or 6000 PSI Max.





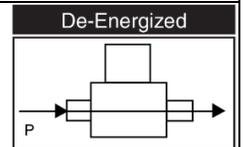
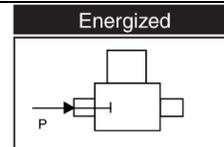
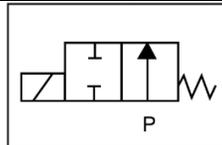
2-Way • Normally Closed & Normally Open • 3/8" to 2" NPT High Performance S21 & H21 Series Solenoid Valves

Piloted Diaphragm • Stainless Steel & Brass

Normally Open Valve Specifications (Open when de-energized)

Pipe Size (NPT)	Orifice Size (in)	Flow Factor (Cv)	Operating Pressure Differential (PSI)				Part Number ^① (Shown with 120 VAC Lead Wire Coil)		
			Min.	Maximum		Stainless Steel	Brass		
				Air/Gas, Liquid & Light Oil				Steam	
				AC	DC			AC	DC
3/8"	1/2	3.3	1	150	140	-	-	-	S212GH02K4CG1
	1/2	3.3	1	150	140	100	100	-	S212GH02T4CG1
	1/2	3.3	10	150	140	150	140	-	S212GH02T2CG1
1/2"	1/2	3.3	1	150	140	-	-	-	S212GH02K4DG1
	1/2	3.3	1	150	140	100	100	-	S212GH02T4DG1
	1/2	3.6	10	150	140	150	140	-	S212GH02T2DG1
3/4"	3/4	6.1	1	150	140	-	-	-	S212GH02K4EG5
	3/4	6.1	1	150	140	100	100	-	S212GH02T4EG5
	3/4	7.0	10	150	140	150	140	-	S212GH02T2EG5
1"	1	13	10	200	140	-	-	-	S212GH02N4FG9
	1	13	10	200	140	100	100	-	S212GH02T2FG9
1-1/4"	1-1/2	22	10	200	140	-	-	S212GH02N1GJ5	S212GH02N4GJ5
	1-1/2	22	10	200	140	100	100	S212GH02T1GJ5	S212GH02T2GJ5
1-1/2"	1-1/2	28	10	200	140	-	-	S212GH02N1HJ5	S212GH02N4HJ5
	1-1/2	28	10	200	140	100	100	S212GH02T1HJ5	S212GH02T2HJ5
2"	1-1/2	29	10	200	140	-	-	S212GH02N1JJ5	S212GH02N4JJ5
	1-1/2	29	10	200	140	100	100	S212GH02T1JJ5	S212GH02T2JJ5

- ① See part number selection guide for additional voltages and variations.
 2. UL Recognized Only for Valves with MOPD >1200 PSI
 3. MRP = 5X MOPD or 6000 PSI Max.





2-Way • Normally Closed & Normally Open • 3/8" to 2" NPT High Performance S21 & H21 Series Solenoid Valves

Piloted Diaphragm • Stainless Steel & Brass

High Performance S21 & H21 Part Number Selection

Valve Series	Operating Mode	Coil Housing	Coil Class	Voltage	Seal Material	Body Material/ Pipe Size
①	②	③	④	⑤	⑥	⑦
S21	1	G	H	02	K	4CG1

① **Valve Series**

S21	Piloted Diaphragm
H21	High Pressure Piloted Diaphragm

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
----------	--------------

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**

K	FKM
N	Nitrile
T	PTFE (Required for Steam Valves)

⑦ **Body Material/Pipe Size**

4CG1	Brass, 3/8" NPT
4DG1	Brass, 1/2" NPT
4EG5	Brass, 3/4" NPT
4FG9	Brass, 1" NPT
4GF5	Brass, 1-1/4" NPT
4HJ5	Brass, 1-1/2" NPT
4JJ5	Brass, 2" NPT
2CG1	Brass, 3/8" NPT (Steam Valves)
2DG1	Brass, 1/2" NPT (Steam Valves)
2EG5	Brass, 3/4" NPT (Steam Valves)
2FG9	Brass, 1" NPT (Steam Valves)
2GF5	Brass, 1-1/4" NPT (Steam Valves)
2HJ5	Brass, 1-1/2" NPT (Steam Valves)
2JJ5	Brass, 2" NPT (Steam Valves)
1GF5	316 Stainless Steel, 1-1/4" NPT
1HJ5	316 Stainless Steel, 1-1/2" NPT
1JJ5	316 Stainless Steel, 2" NPT

⑧ **Optional Suffix**

(blank)	No Option
C	CE Declaration
E	CSA Certification
K	Mounting Bracket (3/8"-3/4" Valves Only)
M	Manual Override (NC Valves Only)
N	Cleaned for Oxygen Service
P	Nickel Plated Plunger & Tube

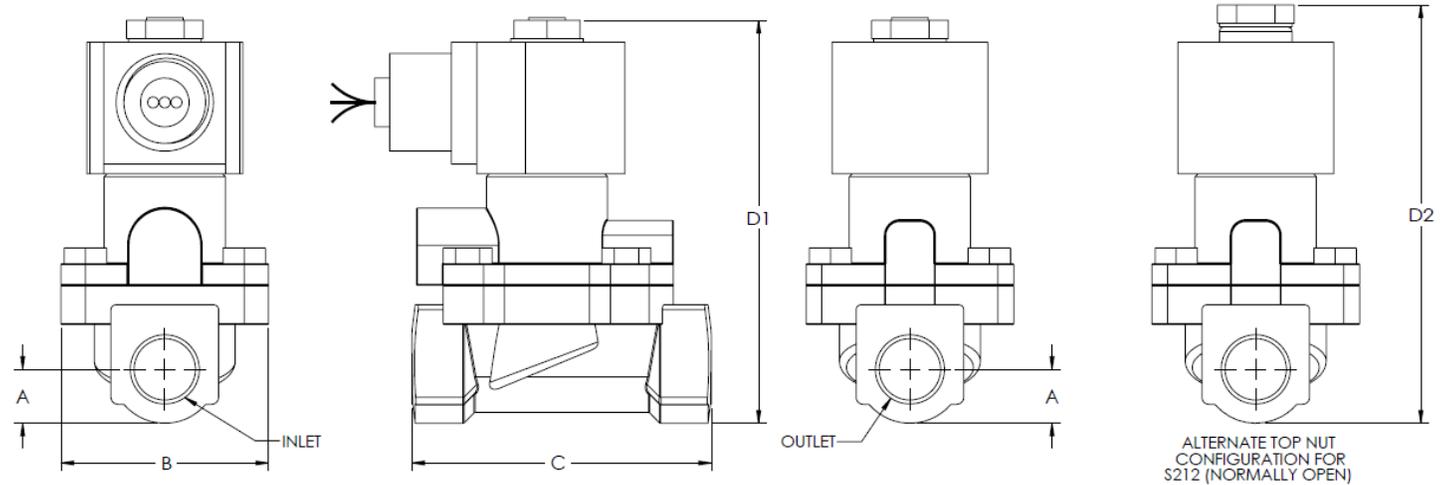


2-Way • Normally Closed & Normally Open • 3/8" to 2" NPT High Performance S21 & H21 Series Solenoid Valves

Piloted Diaphragm • Stainless Steel & Brass

Drawing 1

High Performance S21 & H21 Series – 3/8" to 3/4" – Brass 4 Body



Pipe Size	Series/Mode	A	B	C	D1	D2	Weight
3/8" NPT	S211	0.58	2.18	3.18	4.15	n/a	2.5 lb
	S212	0.58	2.18	3.18	n/a	4.40	2.5 lb
	H211	0.58	2.18	3.18	4.48	n/a	2.5 lb
1/2" NPT	S211	0.58	2.18	3.18	4.15	n/a	2.5 lb
	S212	0.58	2.18	3.18	n/a	4.40	2.5 lb
	H211	0.58	2.18	3.18	4.15	n/a	2.5 lb
3/4" NPT	S211	0.72	2.71	3.84	4.49	n/a	3.3 lb
	S212	0.72	2.71	3.84	n/a	4.74	3.3 lb
	H211	0.72	2.71	3.84	4.82	n/a	3.3 lb

- High Performance S21 & H21 series 3/8" to 3/4" valves can be mounted in any position.
- Dimensions shown in inches.
- Drawing not to scale.

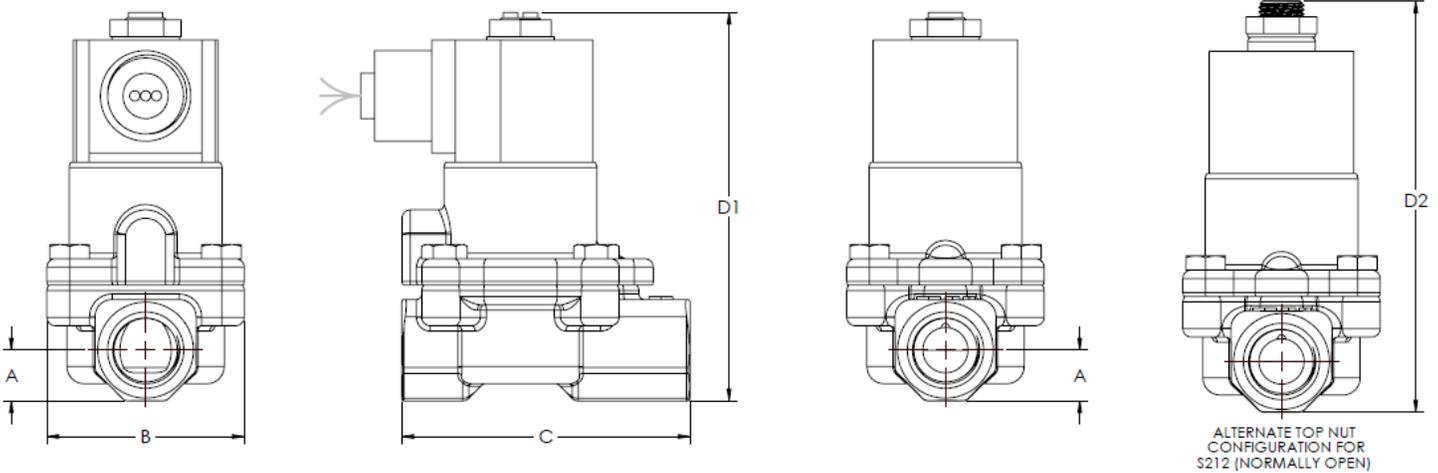


2-Way • Normally Closed & Normally Open • 3/8" to 2" NPT High Performance S21 & H21 Series Solenoid Valves

Piloted Diaphragm • Stainless Steel & Brass

Drawing 2

High Performance S21 Series – 3/8" to 3/4" – Brass 2 Body



Pipe Size	Series/Mode	A	B	C	D1	D2	Weight
3/8" NPT	S211	0.57	2.18	3.20	4.29	n/a	2.5 lb
	S212	0.57	2.18	3.20	n/a	4.54	2.5 lb
1/2" NPT	S211	0.57	2.18	3.20	4.29	n/a	2.5 lb
	S212	0.57	2.18	3.20	n/a	4.54	2.5 lb
3/4" NPT	S211	0.69	2.72	3.82	4.65	n/a	3.3 lb
	S212	0.69	2.72	3.82	n/a	4.90	3.3 lb

- High Performance S21 series 3/8" to 3/4" valves can be mounted in any position.
- Dimensions shown in inches.
- Drawing not to scale.

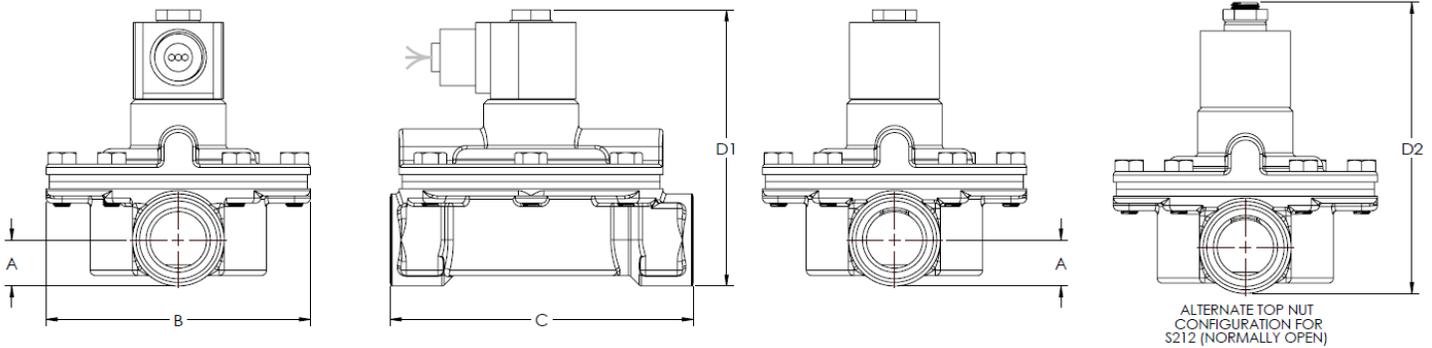


2-Way • Normally Closed & Normally Open • 3/8" to 2" NPT
High Performance S21 & H21 Series Solenoid Valves

Piloted Diaphragm • Stainless Steel & Brass

Drawing 3

**High Performance S21 & H21 Series – 1" Brass,
 1-1/4" to 2" – Stainless Steel & Brass**



Pipe Size	Series/Mode	A	B	C	D1	D2	Weight
1" NPT	S211	0.86	4.74	5.40	4.93	n/a	6.4 lb
	S212	0.86	4.74	5.40	n/a	4.93	6.4 lb
1-1/4" NPT	S211	1.18	5.35	6.27	5.79	n/a	10.5 lb
	S212	1.18	5.35	6.27	n/a	6.04	10.5 lb
1-1/2" NPT	S211	1.18	5.35	6.27	5.49	n/a	10.5 lb
	S212	1.18	5.35	6.27	n/a	6.04	10.5 lb
2" NPT	S211	1.55	5.35	6.29	6.59	n/a	10.5 lb
	S212	1.55	5.35	6.29	n/a	6.84	10.5 lb

- High Performance S21 & H21 series 1" to 2" valves should be mounted $\pm 15^\circ$ from upright and vertical.
- Dimensions shown in inches.
- Drawing not to scale.