

SKINNER 7000 Series

High Pressure Two-Way Direct Acting and Pilot Operated Valves

SPECIFICATIONS

Mechanical Characteristics

Standard Materials of Construction

- Body— Brass or Stainless Steel (430F)
- Seals— FKM, PCTFE, PTFE, NBR, Nylon, Ruby as listed
- Sleeve Tube— Stainless Steel (303 or 304)
- Pilot Guide — Stainless Steel (303)
- Pilot Orifice— Stainless Steel (303)
- Piston— Stainless Steel (303)
- Plunger— Stainless Steel (430FR)
- Shading Ring— Copper
- Stop— Stainless Steel (430FR)
- Springs— Stainless Steel (18-8)

Compatible Fluids

- All common media including air, inert gases, hydraulic fluids, petroleum products, freons, water, steam and corrosive media. Use of non-lubricated gaseous media will substantially limit valve life.

Electrical Characteristics

Voltages

- DC— 12, 24
- AC— 24/60, 110/50-120/60, 208/60, 220/50-240/60, 440/50-480/60 (other AC/DC voltages available upon request)

Power Consumption

- 10, 22 watts
- Fluxtron* Electronic Coils and Magnelatch

Agency Approvals

- UL and CSA approvals are available on valves with applicable coil/enclosure combinations. For additional information see page 136.

Miscellaneous

Maximum Ambient Temperature

- 10 watt AC/DC— 150°F
- 22 watt AC/DC— 77°F
- Fluxtron*/Magnelatch— 122°F

DIRECT ACTING BRASS VALVES— NORMALLY CLOSED, PCTFE OR RUBY SEALS

Pipe Size NPT	Orifice Size (inch)	Cv Factor	Operating Pressure Differential (PSI)					MAX.** Fluid Temp. (F)	Pressure Vessel Number	UL/CSA*** Approval	Const. Ref.
			Min.*	Maximum							
				AC Ratings		DC Ratings					
				10 watt	22 watt	10 watt	22 watt				
1/8"	1/16	0.11	0	1000		435		165	7121KBN1GF00	GP	97
	3/32	0.24	0	500	725	175	320	210	7121KBN1LR00	GP	97
1/4"	1/16	0.11	0	1000		435		165	7121KBN2GF00	GP	97
	1/16	0.11	0	1100	1450	435	800	210	7121KBN2GR00	GP	97
	5/64	0.17	0	700	1030	260	460	210	7121KBN2JR00	GP	97
	3/32	0.24	0	500	725	175	320	210	7121KBN2LR00	GP	97
	1/8	0.31	0	365	525	125	220	210	7121KBN2NR00	GP	97

DIRECT ACTING STAINLESS STEEL VALVES— NORMALLY CLOSED, PCTFE, NYLON OR PTFE SEALS (Flange Seal-NBR)

Pipe Size NPT	Orifice Size (inch)	Cv Factor	Operating Pressure Differential (PSI)					MAX.** Fluid Temp. (F)	Pressure Vessel Number	UL/CSA*** Approval	Const. Ref.
			Min.*	Maximum							
				AC Ratings		DC Ratings					
				10 watt	22 watt	10 watt	22 watt				
1/8"	3/64	0.062	0	1000		520	1000	165	71215SN1EF00	GP	101
	1/16	0.095	0	700		350	700	165	71215SN1GF00	GP	101
	1/32	0.021	0	3000		2500	3000	185	71216SN1BL00	-	101
	3/64	0.037	0	1500		1000	1500	185	71216SN1FU00	GP	101
	1/16	0.070	0	1250		500	1000	185	71216SN1GL00	GP	101
	5/64	0.090	0	500		200	400	185	71216SN1JT00	GP	101
1/4"	3/64	0.062	0	1000		520	1000	165	71215SN2EF00	GP	101
	1/16	0.095	0	700		350	700	165	71215SN2GF00	GP	101
	1/32	0.021	0	3000		2500	3000	185	71216SN2BL00	-	101
	3/64	0.037	0	1500		1000	1500	185	71216SN2FU00	GP	101
	1/16	0.070	0	1250		500	1000	185	71216SN2GL00	GP	101
	5/64	0.090	0	500		200	400	185	71216SN2JT00	GP	101

DIRECT ACTING BRASS VALVES— NORMALLY OPEN, PCTFE OR RUBY SEALS

Pipe Size NPT	Orifice Size (inch)	Cv Factor	Operating Pressure Differential (PSI)				MAX.** Fluid Temp. (F)	Pressure Vessel Number	UL/CSA*** Approval	Const. Ref.	
			Min.*	Maximum							
				AC Ratings		DC Ratings					
				10 watt	22 watt	10 watt					22 watt
1/8"	1/16	0.11	0	435		435	165	7122KBN1GF00	GP	97	
	1/8	0.28	0		435^		210	7122KBN1PR00	GP	97	
1/4"	1/16	0.11	0	435		435	165	7122KBN2GF00	GP	97	

7000 Series High Pressure Two-Way Direct Acting and Pilot Operated Valves

DIRECT ACTING STAINLESS STEEL VALVES—NORMALLY OPEN, PCTFE SEALS

Pipe Size NPT	Orifice Size (inch)	Cv Factor	Operating Pressure Differential (PSI)				MAX.** Fluid Temp. (F)	Pressure Vessel Number	UL/CSA*** Approval	Const. Ref.	
			Min.*	Maximum							
				AC Ratings		DC Ratings					
				10 watt	22 watt	10 watt					22 watt
1/8"	3/64	0.054	0	750		750	165	71225SN1EF00	GP	101	
	1/16	0.11	0	400		400	165	71225SN1GF00	GP	101	
1/4"	3/64	0.054	0	750		750	165	71225SN2EF00	GP	101	
	1/16	0.11	0	400		400	165	71225SN2GF00	GP	101	

PILOT OPERATED BRASS VALVES—NORMALLY CLOSED, NBR, PTFE SEALS

'H' Family valves listed are also available in FKM. 'H' Family valves contain ruby plunger seal.

Pipe Size NPT	Orifice Size (inch)	Cv Factor	Operating Pressure Differential (PSI)				MAX.** Fluid Temp. (F)	Pressure Vessel Number	UL/CSA*** Approval	Const. Ref.	
			Min.*	Maximum							
				AC Ratings		DC Ratings					
				10 watt	22 watt	10 watt					22 watt
1/4"	1/4	0.76	5	1500	800	1500	210	73216BN2MT00	GP	10	
	5/16	2.5	5	600	435	600	185	7321HBN2SN00	GP	24	
3/8"	7/16	3.5	5	600	435	600	185	7321HBN3TN00	GP	24	
1/2"	9/16	4.1	5	600	435	600	185	7321HBN4UN00	GP	24	

PILOT OPERATED STAINLESS STEEL VALVES—NORMALLY CLOSED, PTFE SEALS

Pipe Size NPT	Orifice Size (inch)	Cv Factor	Operating Pressure Differential (PSI)				MAX.** Fluid Temp. (F)	Pressure Vessel Number	UL/CSA*** Approval	Const. Ref.	
			Min.*	Maximum							
				AC Ratings		DC Ratings					
				10 watt	22 watt	10 watt					22 watt
1/4"	1/4	0.76	5	1500		800	1500	210	73216SN2MT00	GP	17

PILOT OPERATED BRASS VALVES—NORMALLY OPEN, NBR SEALS

Valves are also available in FKM. 'H' Family valves contain Ruby plunger seals.

Pipe Size NPT	Orifice Size (inch)	Cv Factor	Operating Pressure Differential (PSI)				MAX.** Fluid Temp. (F)	Pressure Vessel Number	UL/CSA*** Approval	Const. Ref.	
			Min.*	Maximum							
				AC Ratings		DC Ratings					
				10 watt	22 watt	10 watt					22 watt
1/4"	5/16	2.5	5	600	600		185	7322HBN2SV00	GP	24	
3/8"	7/16	3.5	5	600	600		185	7322HBN3TN00	GP	24	
1/2"	9/16	4.1	5	600	600		185	7322HBN4UN00	GP	24	

* Pilot operated valves require the minimum pressure differential specified for proper valve operation.
 ** Maximum fluid temperatures are provided for Class F coils. Valves with FKM seals (letter 'V' in 10th position of pressure vessel number) can be used at fluid temperatures up to 250°F on DC and 250°F on AC provided a Class H coil is used. Pressure ratings may be reduced, however. Consult factory for details.

***UL/CSA Approval information: SS = Safety Shutoff GP = General Purpose Blank = Not Approved
 See page 136 for additional agency approval information.
 ^ Rating suitable for all 22 watt integrated coils except DIN 300 coil. Consult Skinner Valve for application review.
 See page 134 for additional seal material combinations.

DRAWINGS

Valve	Dimension H	Dimension C
71215SN1XXXX	2.84	1.48
71215SN2XXXX	2.84	1.48
71216SN1XXXX	2.84	1.48
71216SN2XXXX	2.84	1.48
71225SN1XXXX	3.08	1.68
71225SN2XXXX	3.08	1.68

X" denotes multiple digit combinations for brevity.

NORMALLY CLOSED

NORMALLY OPEN

Port Identification: 1-OUT/ 2-IN

DRAWINGS

NORMALLY CLOSED

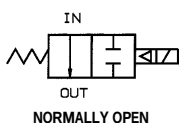
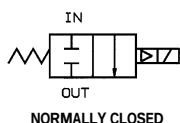
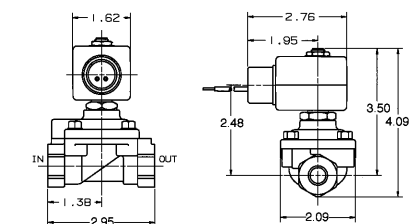
NORMALLY OPEN

Port Identification: 1-IN/ 2-OUT

7000 Series High Pressure Two-Way Direct Acting and Pilot Operated Valves



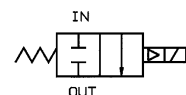
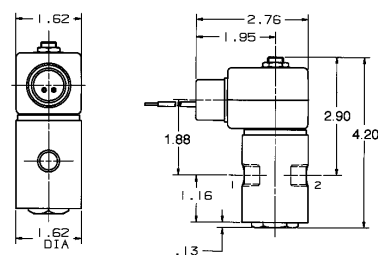
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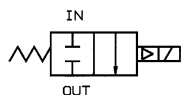
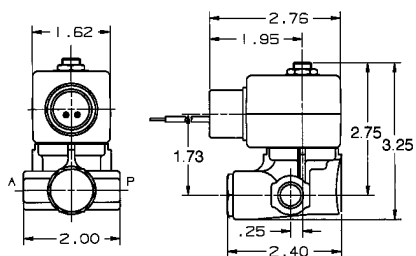
Port Identification: Flow arrow on body indicates flow direction—ports are not marked.



#17



#10



Port Identification: P-IN/ A-OUT