

Solenoid Valves for Automation

SKINNER 7000 Series General Purpose Three-Way Direct Acting Valves

IN THIS SECTION :
7131, 7132, 7133, 7138

SPECIFICATIONS

Mechanical Characteristics

Standard Materials of Construction

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

Compatible Fluids

- Lubricated Air, Non-Lubricated Air, Inert Gases, Water, Hydraulic Fluids, Petroleum Products and additional fluids compatible with materials of construction. Use of non-lubricated gaseous media will substantially limit valve life.

Electrical Characteristics

Voltages

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

Agency Approvals

- UL and CSA approvals are available on valves with applicable coil/enclosure combinations. For additional information see page 122.

Miscellaneous

Maximum Ambient Temperature

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

7131 DIRECT ACTING BRASS VALVES—NORMALLY CLOSED, PCTFE OR FKM SEALS

Pipe Size NPT	Orifice Body NC (inch)	Orifice Body NO (inch)	Orifice Sleeve Size (inch)	Cv Factor NC	Cv Factor NO	Operating Pressure Differential (PSI)				Max.* Fluid Temp. (F)	Pressure Vessel Catalog Number	UL/CSA** Approval	Const. Ref.	
						Min.	Maximum							
							AC Ratings		DC Ratings					
							10 watt	22 watt	10 watt					22 watt
FLG^	3/32		3/32	0.24	0.24	0	100		100		185	7131FBF4LV00	GP	36
1/8"	1/16		1/16	0.11	0.11	0	215		215		185	7131KBN1GV00	GP	37
	3/32		3/32	0.24	0.24	0	100		100		185	7131KBN1LV00	GP	37
1/4"	1/32		1/32	0.02	0.02	0	580		580		165	7131KBN2BF00	GP	37
	1/16		1/16	0.11	0.11	0	215		215		185	7131KBN2GV00	GP	37
	5/64		3/32	0.17	0.24	0	150		150		185	7131KBN2JV00	GP	37
	3/32		3/32	0.24	0.24	0	100		100		185	7131KBN2LV00	GP	37
	5/64	1/8		0.17	0.31	0	150		150		185	7131TBN2JV00	GP	38
	3/32	9/64		0.24	0.38	0	110		110		185	7131TBN2LV00	GP	38
	3/16	1/4		0.49	0.63	0	30		30		185	7131TBN2RV00	GP	38

^ 2, 3 and 5 station subbases with 1/4" BSP common inlet port and 1/8" BSP outlet ports are available for use with D400 and D500 32mm DIN coils only. For details consult factory.

Solenoid Valves for Automation

7000 Series General Purpose Three-Way Direct Acting Valves

7131 DIRECT ACTING STAINLESS STEEL VALVES—NORMALLY CLOSED, NBR OR FKM SEALS

'5' Family valves also available with FKM seals.

Pipe Size NPT	Orifice Body NC (inch)	Orifice Body NO (inch)	Orifice Sleeve Size (inch)	Cv Factor NC	Cv Factor NO	Operating Pressure Differential (PSI)				Max.* Fluid Temp. (F)	Pressure Vessel Catalog Number	UL/CSA** Approval	Const. Ref.			
						Min.	Maximum		10 watt					22 watt		
							AC Ratings								DC Ratings	
							10 watt	22 watt							10 watt	22 watt
1/8"	3/64		1/16	0.062	0.095	0	250		250		185	71315SN1EN00	GP	39		
	3/64		1/16	0.062	0.095	0	250		250		185	71315SN1ENJ1	GP	39		
	1/16		1/16	0.11	0.095	0	200		200		185	71315SN1GN00	GP	39		
	1/16		1/16	0.11	0.095	0	200		200		185	71315SN1GNJ1	GP	39		
	3/32		3/32	0.17	0.17	0	125		125		185	71315SN1KN00	GP	39		
	3/32		3/32	0.17	0.17	0	125		125		185	71315SN1KNJ1	GP	39		
	1/8		3/32	0.23	0.17	0	90		90		185	71315SN1MN00	GP	39		
	1/8		3/32	0.23	0.17	0	90		90		185	71315SN1MNJ1	GP	39		
	3/16		3/32	0.38	0.17	0	25		25		185	71315SN1SN00	GP	39		
	3/16		3/32	0.38	0.17	0	25		25		185	71315SN1SNJ1	GP	39		
	1/4		3/32	0.67	0.17	0	vac		vac		185	71315SN1VNJ1	GP	39		
1/4"	3/64		1/16	0.062	0.095	0	250		250		185	71315SN2EN00	GP	39		
	3/64		1/16	0.062	0.095	0	250		250		185	71315SN2ENJ1	GP	39		
	1/16		1/16	0.11	0.095	0	200		200		185	71315SN2GN00	GP	39		
	1/16		1/16	0.11	0.095	0	200		200		185	71315SN2GNJ1	GP	39		
	3/32		3/32	0.17	0.17	0	125		125		185	71315SN2KN00	GP	39		
	3/32		3/32	0.17	0.17	0	125		125		185	71315SN2KNJ1	GP	39		
	1/8		3/32	0.23	0.17	0	90		90		185	71315SN2MN00	GP	39		
	1/8		3/32	0.23	0.17	0	90		90		185	71315SN2MNJ1	GP	39		
	3/16		3/32	0.38	0.17	0	25		25		185	71315SN2SN00	GP	39		
	3/16		3/32	0.38	0.17	0	25		25		185	71315SN2SNJ1	GP	39		
	1/4		3/32	0.67	0.17	0	vac		vac		185	71315SN2VNJ1	GP	39		
	1/16	1/16		0.095	0.095	0	200		200		185	7131TVN2GV00	GP	40		
	5/64	5/64		0.18	0.18	0	150		150		185	7131TVN2JV00	GP	40		
	3/32	3/32		0.19	0.19	0	110		110		185	7131TVN2LV00	GP	40		
	1/8	1/8		0.32	0.32	0	70		70		185	7131TVN2NV00	GP	40		

* Maximum fluid temperatures are provided for Class F coils. Valves with FKM seals (letter 'V' in the 10th position of pressure vessel number) can be used at fluid temperatures up to 240°F on DC and 250°F on AC provided a Class H coil is used.

** UL/CSA Approval Information: GP=General Purpose Blank=Not Approved
See page 122 for additional agency approval information.

DRAWINGS

MECHANICAL OPTION "J1" FOR TYPE 71315

10-32 NF x .25 DP 2 PLC'S

Port Identification:
1-Pressure/ 2-Cylinder/ 3-Exhaust



#39

10-32 UNC TH'D x 1/8 DP 2 PLC'S

MECHANICAL OPTION "MO"

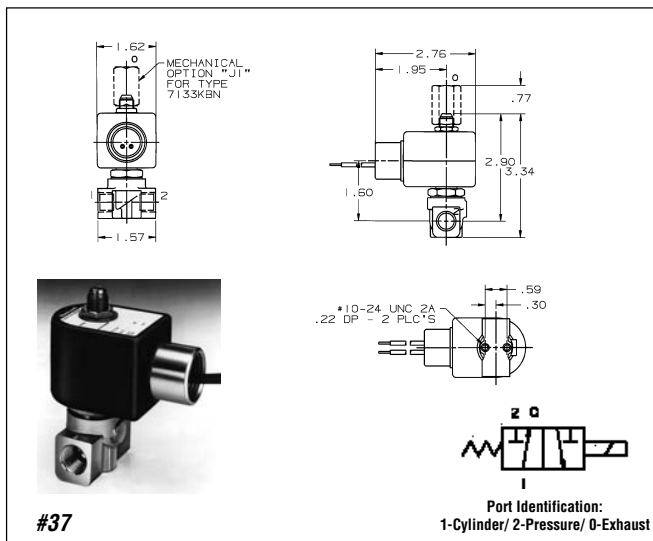
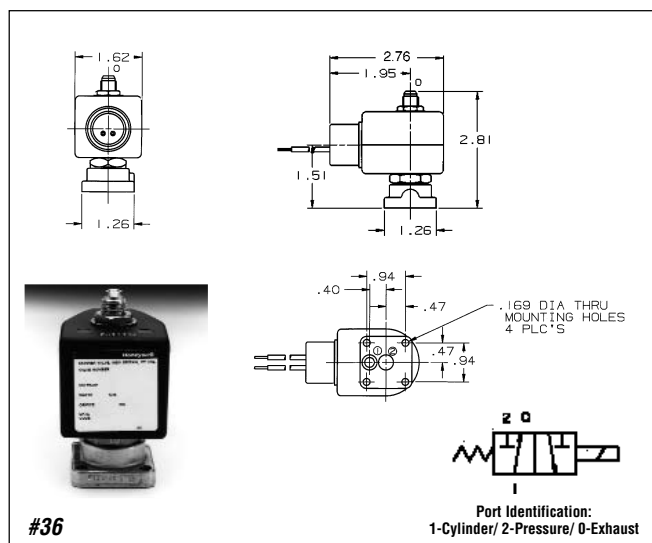
Port Identification:
1-Pressure/ 2-Cylinder/ 3-Exhaust



#40

Three-Way Solenoid Valves

7000 Series General Purpose Three-Way Direct Acting Valves



Solenoid Valves for Automation

7000 Series General Purpose Three-Way Direct Acting Valves

7132 DIRECT ACTING BRASS VALVES—NORMALLY OPEN, FKM SEALS

Pipe Size NPT	Orifice Body NC (inch)	Orifice Body NO (inch)	Orifice Sleeve Size (inch)	Cv Factor NC	Cv Factor NO	Operating Pressure Differential (PSI)				Max.* Fluid Temp. (F)	Pressure Vessel Catalog Number	UL/CSA** Approval	Const. Ref.	
						Min.	Maximum							
							AC Ratings		DC Ratings					
							10 watt	22 watt	10 watt					22 watt
1/4"	5/32	1/8		0.31	0.41	0	150				185	7132TBN2NV00	GP	118

7139 DIRECT ACTING STAINLESS STEEL VALVES—NORMALLY OPEN, NBR SEALS

'5' family valves also available with FKM seals.

Pipe Size NPT	Orifice Body NC (inch)	Orifice Body NO (inch)	Orifice Sleeve Size (inch)	Cv Factor NC	Cv Factor NO	Operating Pressure Differential (PSI)				Max.* Fluid Temp. (F)	Pressure Vessel Catalog Number	UL/CSA** Approval	Const. Ref.	
						Min.	Maximum							
							AC Ratings		DC Ratings					
							10 watt	22 watt	10 watt					22 watt
1/8"	1/16		3/64	0.10	0.052	0	250	250	185	71395SN1ENJ1	GP	120		
	1/8		1/16	0.28	0.10	0	150	150	185	71395SN1GNJ1	GP	120		
	1/8		3/32	0.28	0.17	0	125	125	185	71395SN1KNJ1	GP	120		
1/4"	1/16		3/64	0.10	0.052	0	250	250	185	71395SN2ENJ1	GP	120		
	1/8		1/16	0.28	0.10	0	150	150	185	71395SN2GNJ1	GP	120		
	1/8		3/32	0.28	0.17	0	125	125	185	71395SN2KNJ1	GP	120		

* Maximum fluid temperatures are provided for Class F coils. Valves with FKM seals (letter 'V' in the 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 SGP= General Purpose Blank= Not Approved
See page 122 for additional agency approval information.

DRAWINGS

#118

Port Identification:
1-Exhaust/ 2-Cylinder/ 3-Pressure

#120

Port Identification:
1-Exhaust/ 2-Cylinder/ 3-Pressure

Three-Way Solenoid Valves

Solenoid Valves for Automation

7000 Series General Purpose Three-Way Direct Acting Valves

7133 DIRECT ACTING BRASS VALVES—MULTIPURPOSE, FKM SEALS

Pipe Size NPT	Orifice Body NC (inch)	Orifice Body NO (inch)	Orifice Sleeve Size (inch)	Cv Factor NC	Cv Factor NO	Operating Pressure Differential (PSI)					Max.* Fluid Temp. (F)	Pressure Vessel Catalog Number	UL/CSA** Approval	Const. Ref.
						Min.	Maximum							
							AC Ratings		DC Ratings					
							10 watt	22 watt	10 watt	22 watt				
FLG^	3/32		3/32	0.24	0.24	0	60		60		185	7133FBF4LVJ1	GP	114
1/8"	1/16		1/16	0.11	0.11	0	150		150		185	7133KBN1GVJ1	GP	116
	5/64		5/64	0.15	0.15	0	100		100		185	7133KBN1JVJ1	GP	116
	3/32		3/32	0.24	0.24	0	60		60		185	7133KBN1LVJ1	GP	116
1/4"	1/32		1/32	0.02	0.02	0	435		435		185	7133KBN2BVJ1	GP	116
	1/16		1/16	0.10	0.10	0	150		150		185	7133KBN2GVJ1	GP	116
	5/64		5/64	0.15	0.15	0	100		100		185	7133KBN2JVJ1	GP	116
	3/32		3/32	0.24	0.24	0	60		60		185	7133KBN2LVJ1	GP	116
	5/64	5/64		0.17	0.17	0	100		100		185	7133TBN2JV00	GP	119
	3/32	3/32		0.19	0.19	0	60		60		185	7133TBN2LV00	GP	119
	1/8	1/8		0.31	0.31	0	30		30		185	7133TBN2NV00	GP	119

* Maximum fluid temperatures are provided for Class F coils. Valves with FKM seals (letter 'V' in the 10th position of pressure vessel number) can be used at fluid temperatures up to 240°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 122 for additional agency approval information.
^ 2, 3 and 5 station subbases with 1/4" BSP outlet ports and 1/8" BSP outlet ports are available for use with D400 and D500 32mm DIN coils only. See page 98

Three-Way Solenoid Valves

#114

Port Identification:
Pressure can be applied at either port.

#116

Port Identification:
Pressure can be applied at either port.

#119

Port Identification:
Pressure can be applied at either port.

Solenoid Valves for Automation

7000 Series General Purpose Three-Way Direct Acting Valves

7138 DIRECT ACTING STAINLESS STEEL VALVES—DIVERTING, NBR SEALS

'5' family valves also available with FKM seals.

Pipe Size NPT	Orifice Body NC (inch)	Orifice Body NO (inch)	Orifice Sleeve Size (inch)	Cv Factor NC	Cv Factor NO	Operating Pressure Differential (PSI)				Max.* Fluid Temp. (F)	Pressure Vessel Catalog Number	UL/CSA** Approval	Const. Ref.	
						Min.	Maximum							
							AC Ratings		DC Ratings					
							10 watt	22 watt	10 watt					22 watt
1/8"	1/16		1/16	0.095	0.095	0	235		235		185	71385SN1GNJ1	GP	122
	3/32		3/32	0.17	0.17	0	140		140		185	71385SN1KNJ1	GP	122
	1/8		3/32	0.23	0.17	0	125		125		185	71385SN1MNJ1	GP	122
1/4"	1/16		1/16	0.095	0.095	0	235		235		185	71385SN2GNJ1	GP	122
	3/32		3/32	0.17	0.17	0	140		140		185	71385SN2KNJ1	GP	122
	1/8		3/32	0.23	0.17	0	125		125		185	71385SN2MNJ1	GP	122

* Maximum fluid temperatures are provided for Class F coils. Valves with FKM seals (letter 'V' in the 10th position of pressure vessel number) can be used at fluid temperatures up to 240°F on DC and 250°F on AC provided a Class H coil is used.

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DRAWINGS

MECHANICAL OPTION "JT" FOR TYPE 71315

1.62 DIA

2

3

2.76

1.95

3

3.82 (1/4 NPT)

3.65 (1/8 NPT)

3.12

1.82

2

1

.44

.88

.44

.88

10-32 NF TH'D

x .25 DP

2 PLC'S

1 3

2

Port Identification:
1-NC/ 2-IN/ 3-NO

#122