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Solenoid Valves

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Solenoid Valves

DSP2000B

Solenoid Valves

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Air Compressor
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Jefferson Valve Approvals

ISO 9001 CERTIFIED QUALITY SYSTEM

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Getting Started

Necessary Data for Selecting and/or Purchasing a Solenoid Valve.
Solenoid valves provide an easy, safe and economical solution for a great variety of security and control systems, though they are limited in respect to pressure, temperature, viscosity, flow and fluid corrosion and dirtiness. Choosing the right model demands attention to some data for the specific application:

Fluid Characteristics

The liquid or gaseous product to be handled must be clean and free from suspended foreign particles. Therefore, in order to guarantee continuous faultless service it is **essential** to place a **strainer** before the valve and very close to it, with a particle retention capacity of 100 microns or less.

Generally, viscosity shall not exceed SAE 10 at 30° C. However, some direct acting models may work with greater viscosity.

Another important aspect is the fluid compatibility with the valve materials that are in contact with it. For this reason, different materials are used to manufacture the body, seal, seat, diaphragm, piston, etc., for a single valve. Each valve series provides complete information.

Size and Type of Connection

Connection size is indicated in inches. Connection type depends on the specific use and application area. For General Use: threaded BSP or NPT. Flanged upon request.

Installation

The best valve position is over horizontal pipeline with the coil upright. For some models this is the only position acceptable.

Pressure Differential

Pressure differential, or pressure drop or charge loss, is the static pressure difference between the valve's inlet and outlet.

Maximum Operating Pressure Differential

The maximum operating pressure differential is the maximum difference in pressure between the inlet and outlet against which the solenoid can safely operate the valve.

Minimum Operating Pressure Differential

The minimum operating pressure differential is the minimum difference in pressure required to open a pilot operated valve and keep it open (Not required for direct acting or hung type valves)

Maximum Line Pressure

It is usually equal to the maximum operating pressure differential, except in cases of residual pressure or vacuum from the outlet, and is also defined as the line pressure to which the valve may be subjected without being damaged.

Hydraulic Test Pressure

It is the pressure at which the valve's design is tested, and equals 5 times the maximum line pressure. This safety factor securely prevents strain or breakage of the external components in case of accidental overpressure in the line.

Counterpressure

Two-way solenoid valves do not allow output pressure or counterpressure to be greater than the input pressure. In this case, it is necessary to use retention valves to prevent counterpressure from entering the circuit before the valve.

Operating Temperature

Each model indicates the maximum fluid temperature allowed for that specific valve.

There are two aspects related to this temperature: Construction materials and the coil thermal class. Ambient temperature is also relevant, since the sum of the fluid's heat absorbed by the coil when it exceeds 80° C and the heat generated by itself when energized, must be dissipated into the environment; so a high temperature can make this process difficult.

In these cases, it is advisable to place the valve in a ventilated area which shall not exceed 40° C.

If these conditions are not complied with, as a hard and fast rule, the following correction shall be used: Maximum temperature indicated in the valve + 30° C = fluid temperature + ambient temperature.

Ambient Conditions

Besides temperature, there are other factors to be considered, such as internal or external use, humidity, rain, water showers, corrosive, explosive or prone to flood environments. **M** and **G** size coils are often encapsulated, with DIN connections and IP65 protection (water and weather proof).

For explosive ambients, Jefferson manufactures encapsulated explosion and weather proof coils, according to IEC79-18m., ZC type. Non capsulated coils are used in valves that have a weather proof housing, **Y** type, weather and explosion proof, **Z** type, or internal use, **C** type.

Response Time

It is the period of time from the commutation of the electric signal to the moment the valve has arrived to 90% of its change of position. Solenoid valves are fast operating. Direct acting models open or close with air at 6 bar at a rate that ranges from 8 to 50 milliseconds (ms). Pilot operated valves are slower and range from 50 to 80 ms according to the model and size.

In some models, response time with liquids may double the response time with air, especially when closing. Jefferson can correct them according to service conditions upon request, by slightly modifying the standard valves.

For this reason, when response time is critical for the system where the valve is to be installed, we advise you to consult SVI's sales department.

Electric Power Supply

Since there is a special coil for each type of current and voltage with the exact power to operate upon a specific service condition, valves shall only be used with their technically appropriate coil. SVI supplies coils with a wide range of power, sizes, housing and connections for voltages from 12 to 440 V, alternating current of 50 Hz, 60 Hz and direct current. See Coils and Housings.

Flow and Flow Factor

There are formulas, diagrams and charts which are based on the valve's flow factor, in order to determine the flow of a fluid that goes throughout a valve in certain conditions such as pressure differential, fluid temperature, state, density, viscosity, etc. Call SVI for more info on how to calculate flow factor.

DIN 43650 Shape A

DIN 43650 Shape B

NEMA 4x
IEC 79-18m

Current	DIN43650 Connection-IP65 Integrated weather and humidity proof coil and housing. Plug-in connection with strain-relief or thread for 1/2" NPT conduit			NEMA 4x Integrated weather water and saline corrosion proof coil and housing		IEC 79-18 Integrated explosion, weather and saline corrosion proof coil and housing (prefix ZC)	
	Size G	Size M		Size M		Size M	
	Shape B	Shape A		1/2" NPT connection		1/2" NPT connection	
Hz	Class F 155 C	Class F 155 C	Class H 180 C	Class F 155 C	Class H 180 C	Class F 155C	Class H 180 C
D/C	GF06C	MF19C	MH19C	MF19Y	MH19Y	MF19Z	MH19Z
A/C 50 Hz	GF06C	MF11C MF16C MF20C	MH11C MH16C MH20C	MF11Y MF16Y MF20Y	MH11Y MH16Y MH20Y	MF11Z MF16Z MF20Z	MH11Z MH16Z MH20Z
A/C 60 Hz	GF06C	MF13C MF16C MF20C	MH13C MH16C MH20C	MF13Y MF16Y MF20Y	MH13Y MH16Y MH20Y	MF13Z MF16Z MF20Z	MH13Z MH16Z MH20Z

YC 1335 B A 4 T

NPT Connections

Connection Size

2	1/4"
3	3/8"
4	1/2"
6	3/4"
8	1"
10	1-1/4"
12	1-1/2"
16	2"
20	2-1/2"
24	3"

Seal Material
A = NBR Buna "N" 176F
N = Neoprene 176F
E = EPDM 302F
V = FKM (Viton) 302F
T = PTFE 356F

Body Material
B = Brass or Bronze
S = Stainless Steel AISI304
I = Stainles Steel AISI316
L = Aluminum

Valve Series

Coil Protection
Blank = Standard Overmold Coil w/ DIN connector or uncapsulated coil
YC = Weather and Corrosion Proof (NEMA 4x)
ZC = Explosion and Weather Proof

Available tensions							
Volts	12	24	48	110	120	220	240
D/C	Yes	Yes	Yes	Yes	No	Yes	No
50 Hz	Yes	Yes	Yes	Yes	No	Yes	Yes
60 Hz	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Once correct valve has been chosen, pick coils from pages 19–20.

Not sure which valve you need?

Call SVI and fill out a request form, we'll tell you which valve is best for your needs!

TOLL FREE:
800-321-8173

1314 Series

Main Characteristics

- Designed for heavy duty applications such as above ground storage tanks
- High flow valves for liquid petroleum based fuels and automatic pressure relief back to tank
- Prevents accidental siphoning of product from the tank in the event of a fracture in the pipe or other cause for lead downstream and below the liquid level
- Zero differential pilot operated construction for gravity feed pipes.
- Normally Closed
- Bronze or Stainless Steel bodies for heavy duty applications and long service life
- 3/4" NPT through 3" NPT female end connections
- Non-molded coil with 18" leads housed in a NEMA 7 hazardous location enclosure supplied as standard
- Pilot Operated
- Brass, stainless steel piston

CERTIFIED QUALITY SYSTEM

Applications:

- Air & Inert Gases
- Water & Light Liquids
- Thermal Oils
- Steam
- Oxygen
- Gasoline

Not sure which valve you need?

Call SVI and fill out a request form, we'll tell you which valve is best for your needs!

Interconnection cables. Internal general use housing.
3/4" NF electrical connection
Core tube: 304 s.s., Core spring: 302 s.s., Core: 430 F s.s.

Options:

- Explosion and/or weather proof housing
- Manual operator on the main orifice
- Flanged connections

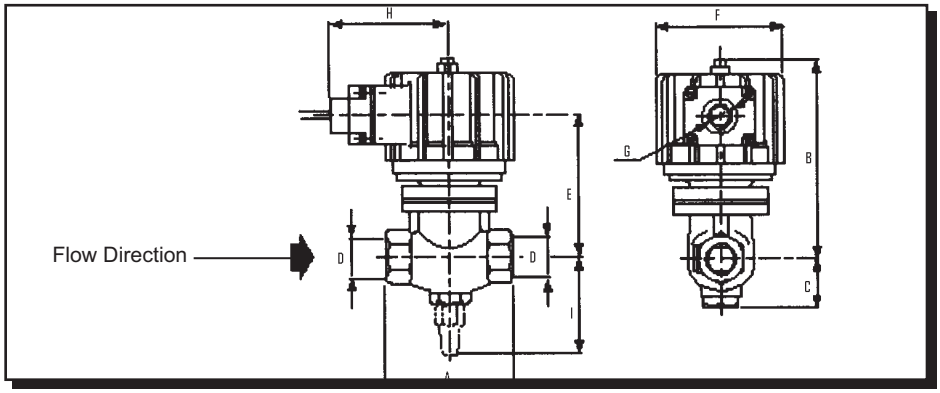
Operating Pressure Differential

Type	Minimum PSI	Maximum Steam		Maximum Other Fluids	
		Teflon (PTFE) seal PSI	EPDM Seal PSI	AC PSI	DC PSI
Hung Piston	0	105	45	105	105
Floating Piston	1.5	150	45	225	150

Technical Specifications - Bronze Body

Pipe Size Inches	Orifice Size Inches	Flow Factor Cv	Weight Lbs.	Maximum Temp. and Catalog # according to Seal Material				
				Buna 80°C/176°F	Neoprene 80°C/176°F	EPDM 150°C/302°F	Viton (FKM) 150°C/302°F	Teflon (PTFE) 180°C/356°F
				Type: HUNG PISTON				
				SVI Part #	**SVI Part #**	**SVI Part #**	**SVI Part #**	**SVI Part #**
3/4	.75	7	8.9	J-1314BA06A	J-1314BN06A	J-1314BE06A	J-1314BV06A	J-1314BST06A
1	1.02	12	10.9	J-1314BA08A	J-1314BN08A	J-1314BE08A	J-1314BV08A	J-1314BST08A
1-1/2	1.26	18	14.4	J-1314BA12A	J-1314BN12A	J-1314BE12A	J-1314BV12A	J-1314BST12A
2	1.50	27	16.2	J-1314BA16A	J-1314BN16A	J-1314BE16A	J-1314BV16A	J-1314BST16A
				Type: FLOATING PISTON				
				SVI Part #	**SVI Part #**	**SVI Part #**	**SVI Part #**	**SVI Part #**
3/4	.75	7	8.9	J-1314BA06	J-1314BN06	J-1314BE06	J-1314BV06	J-1314BST06
1	1.02	12	10.9	J-1314BA08	J-1314BN08	J-1314BE08	J-1314BV08	J-1314BST08
1-1/2	1.26	18	14.4	J-1314BA12	J-1314BN12	J-1314BE12	J-1314BV12	J-1314BST12
2	1.50	27	16.2	J-1314BA16	J-1314BN16	J-1314BE16	J-1314BV16	J-1314BST16

For complete seal chemical compatibility, consult SVI.



1314 Series

General Dimensions - in inches

A	B	C	D	E	F	G	H	I
4.0	5.90	1.50	3/4" NPT	3.50	3.82	1/2" conduit	3.74	3.0
4.8	6.25	1.75	1" NPT	3.70	3.82	1/2" conduit	3.74	3.3
5.4	6.90	2.00	1-1/2" NPT	4.40	3.82	1/2" conduit	3.74	3.8
5.9	7.00	2.25	2" NPT	4.60	3.82	1/2" conduit	3.74	4.0
8.8	9.50	4.50	3" NPT	7.75	3.82	1/2" conduit	3.74	6.5

Special Constructions:
Stainless Steel Body:
- AIS1304: change letter B or BS to S
- AIS1316: change letter B or BS to I

Options	Prefix	Suffix	Examples
Weather proof housing	Y		Y1314BST08A
Explosion & weather proof housing	Z		Z1314BST08A
Manual operation: on main orifice		-M	1314BST08A-M
NPT Connections		T	1314BST08AT
Flanged Connections		B	1314BST08AB

Coil Characteristics

Electric Power Supply	Coil Type	Power W	VA Inrush	VA Holding	Maximum Temperature °C	Maximum Temperature °F	Available Tensions
AC 50 Hz	SH28C	28	241	69	155°	311°	1
	S28H*	28	252	73	180°	356°	1
AC 60 Hz	SH30C	30	267	80	155°	311°	2
	S30H *	30	237	78	180°	356°	2
DC	SH48	48	48	48	155°	311°	3
	S48H *	48	48	48	180°	356°	3

* For steam
1 = 12,24,110,220,240V 2 = 12,24,110,120,220,240 V 3 = 12,24,110,220 V

Application according to seal material

Seal Material	Buna "N"	Neoprene	EPDM	Viton (FKM)	Teflon (PTFE)
Maximum Temperature	80°C/176°F	80°C/176°F	150°C/302°F	150°C/302°F	180°C/356°F
Uses	water, air light oils, kerosene, low & medium vacuum	Oxygen, alcohol, argon, other non-corrosive light gases and liquids, Freon 12	Water steam, hot water, acetone	benzene, naphta, aromatics, etc. hot gases, high vacuum, diesel oil	steam, hot oils, corrosive fluids

Recommendations for Installation
- Place a strainer with a porosity of 140 Micron upstream of the valve
- Mount the valve **only** on a horizontal pipeline with the coil upright
- The valve input pressure must always be equal or greater than the output pressure

1327 Series

Main Characteristics
- Normally Closed and Normally Open
- Direct Acting. No minimum differential pressure to operate.
- Brass, iron, stainless steel body
- 1/4” BSP or NPT threaded connections
- DIN 43650 connection encapsulated coils, shape A.
- IP65 and NEMA4 protection
- Core tube: 304 s.s Core Spring: 302 s.s Core: 430F s.s.
- Shading coil: copper (brass body); silver (s.s. body)
- Approximate weight 1.1 lb

Options:
- Energized coil indicator light
- Explosion and/or weather proof coils and housing
- Manual operator

CERTIFIED QUALITY SYSTEM

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Applications:
- Air & Inert Gases
- Water & Light Liquids
- Thermal Oils
- Steam
- Oxygen
- Gasoline

Not sure which valve you need?
Call SVI and fill out a request form, we’ll tell you which valve is best for your needs!

Technical specifications - brass body

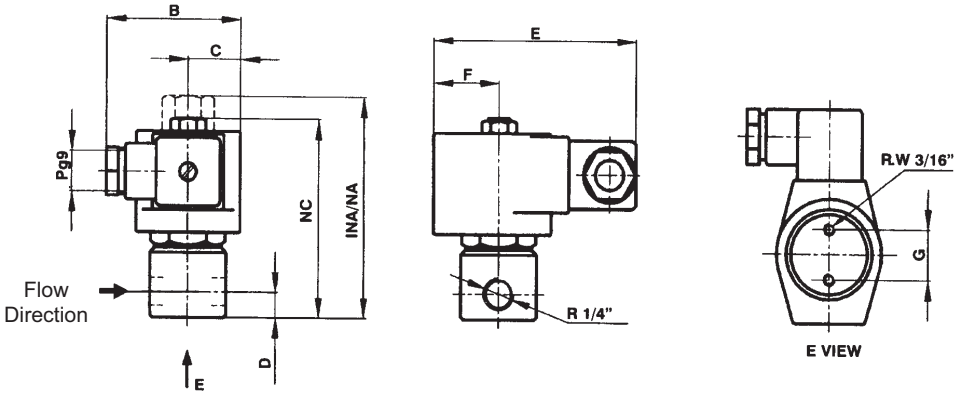
Orifice size inches	Flow factor Cv	Press. Diff. Maximum psi	Maximum temp & catalog # according to seal material				
			Buna 80°C/176°F	Neoprene 80°C/176°F	EPDM 150°C/302°F	Viton (FKM) 180°C/302°F	Teflon (PTFE) 180°C/356°F
Normally Closed			**SVI Part #**	**SVI Part #**	**SVI Part #**	**SVI Part #**	**SVI Part #**
.049	.06	1500	J-1327BA122	J-1327BN122	J-1327BE122	J-1327BV122	J-1327BT122
.068	.11	525	J-1327BA172	J-1327BN172	J-1327BE172	J-1327BV172	J-1327BT172
.088	.15	300	J-1327BA222	J-1327BN222	J-1327BE222	J-1327BV222	J-1327BT222
.118	.30	150	J-1237BA302	J-1327BN302	J-1327BE302	J-1327BV302	J-1327BT302
.157	.50	75	J-1327BA402	J-1327BN402	J-1327BE402	J-1327BV402	J-1327BT402
.197	.70	45	J-1327BA502	J-1327BN502	J-1327BE502	J-1327BV502	---------
.206	.76	33	J-1327BA522	J-1327BN522	J-1327BE522	J-1327BV522	---------
Normally Open			**SVI Part #**	**SVI Part #**	**SVI Part #**	**SVI Part #**	**SVI Part #**
.049	.06	750	J-1327BA122NA	J-1327BN122NA	J-1327BE122NA	J-1327BV122A	J-1327BT122INA
.068	.11	300	J-1327BA172NA	J-1327BN172NA	J-1327BE172NA	J-1327BV172NA	J-1327BT172INA
.088	.15	180	J-1327BA222NA	J-1327BN222NA	J-1327BE222NA	J-1327BV222NA	J-1327BT222INA
.098	.20	150	J-1327BA252NA	J-1327BN252NA	J-1327BE252NA	J-1327BV252NA	
.118	.30	150	J-1327BA302INA	J-1327BN302INA	J-1327BE302INA	J-1327BV302INA	J-1327BT302INA
.157	.50	75	J-1327BA402INA	J-1327BN402INA	J-1327BE402INA	J-1327BV402INA	J-1327BT402INA

*** Advise: when using direct current (DC), a 25% reduction on the maximum operating pressure differential is expected**

For complete seal chemical compatibility, consult SVI.

1327 Series

General dimensions *1327*



NC	NA	INA	B	C	D	E	F	G
3.15	3.50	4	2.24	0.87	0.39	3.35	1.06	0.79

Special Constructions
Stainless Steel Body:
- AISI304: change letter B to S in part #
- AISI316: change letter B to I in part #
- Iron Body: change letter B to H in part #

Options	Prefix	Suffix	Examples
Water, weather & saline corrosion proof coils	YC		YC1327BA302
Explosion and weather proof coils	ZC		ZC1327BA302
Weather proof housing	Y		Y1327BA302
Explosion & weather proof housing	Z		Z1327BA302
Manual operation: on main orifice *		-M	1327BA302-M
NPT Connections		T	1327BA122T
Engergized coil indicator light	See Coils		
* - Up to 300 psi			

Coil Characteristics

Electric Power Supply	Coil Type	Power W	VA Inrush	VA Holding	Maximum Temperature °C	Maximum Temperature °F	Available Tensions
AC 50 Hz	MF11C	11	40	22	155°	311°	1
	MH11C	11	40	22	180°	356°	1
AC 60 Hz	MF13C	13	45	27	155°	311°	2
	MH13C	13	45	27	180°	356°	2
DC	MH19C	19	19	19	180°	356°	3
1 = 12,24,110,220,240V 2 = 12,24,110,120,220,240 V 3 = 12,24,110,220 V							

Application according to seal material

Seal Material	Buna "N"	Neoprene	EPDM	Viton (FKM)	Teflon (PTFE)
Maximum Temperature	80°C/176°F	80°C/176°F	150°C/302°F	150°C/302°F	180°C/356°F
Uses	water, air light oils, kerosene, low & medium vacuum	Oxygen, alcohol, argon, other non-corrosive light gases and liquids, Freon 12	Water steam, hot water, acetone	benzene, naphta, aromatics, etc. hot gases, high vacuum, diesel oil	steam, hot oils, corrosive fluids

Recommendations for Installation
- Place a strainer with a porosity of 140 Micron upstream of the valve
- The valve allows greater output pressure than input pressure, but in these cases watertightness is not guaranteed when it is closed

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1335 Series

Main Characteristics:
- Forged brass, stainless steel body
- BSP or NPT threaded connections
- Encapsulated, plug-in coils.
- Shape A DIN 43650 connection
- IP 65 and NEMA 4 protection
- Normally Closed and Normally Open
- Plastic or metal core diaphragm
- Core Tube:304 s.s., Core Spring:302 s.s., Core: 430 F s.s.
- Shading Coil: Copper (brass body), Silver (s.s. body)

CERTIFIED QUALITY SYSTEM

Underwriters Laboratories Inc.®

Applications:
- Hot or Cold Water
- Air & Inert Gases
- Food Processing
- Fuel Gas
- Coolants
- Light Oils
- Process Automation
- Wide variety of others

Options:
- Energized coil indicator light
- Explosion and/or weather coils and housing
- Manual operator

Not sure which valve you need?
Call SVI and fill out a request form, we'll tell you which valve is best for your needs!

Operating Pressure Differential

Type	Action	Min psi	Max. Steam (EPDM seal) psi	Maximum Other Fluids AC psi	Maximum Other Fluids DC psi
NC	Direct Acting	0	3	3	1.5
NC	Floating diaphragm	1.5	60	150	90
NC	Hung diaphragm	0	60	105	90
NO	Floating diaphragm	1.5	60	150	150

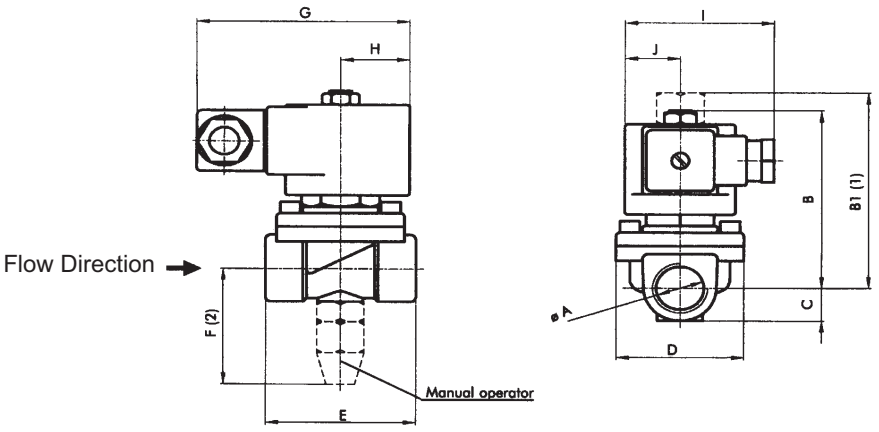
Technical specifications - brass body

Pipe size (in)	Orifice size (in)	Flow factor (CV)	weight (lbs)	Maximum Temp and Catalog # according to seal material: Buna 80°C/176°F	Neoprene 80°C/176°F	EPDM 150°C/306°F	Viton (FKM) 150°C/306°F
	Direct Acting - Normally Closed			**SVI Part #**	**SVI Part #**	**SVI Part #**	**SVI Part #**
3/8	.55	2.75	1.75	J-1335BA3D	J-1335BN3D	J-1335BE3D	J-1335BV3D
1/2	.55	3.10	1.75	J-1335BA4D	J-1335BN4D	J-1335BE4D	J-1335BV4D
3/4	.71	5.03	2.00	J-1335BA6D	J-1335BN6D	J-1335BE6D	J-1335BV6D
	Floating Diaphragm - Normally Closed			**SVI Part #**	**SVI Part #**	**SVI Part #**	**SVI Part #**
3/8	.55	2.75	1.75	J-1335BA3	J-1335BN3	J-1335BE3	J-1335BV3
1/2	.55	3.10	1.75	J-1335BA4	J-1335BN4	J-1335BE4	J-1335BV4
3/4	.71	5.03	2.00	J-1335BA6	J-1335BN6	J-1335BE6	J-1335BV6
	Hung Diaphragm - Normally Closed			**SVI Part #**	**SVI Part #**	**SVI Part #**	**SVI Part #**
3/8	.55	2.75	1.75	J-1335BA3A	J-1335BN3A	J-1335BE3A	J-1335BV3A
1/2	.55	3.10	1.75	J-1335BA4A	J-1335BN4A	J-1335BE4A	J-1335BV4A
3/4	.71	5.03	2.00	J-1335BA6A	J-1335BN6A	J-1335BE6A	J-1335BV6A
	Floating Diaphragm - Normally Open			**SVI Part #**	**SVI Part #**	**SVI Part #**	**SVI Part #**
3/8	.55	2.75	1.75	J-1335BA3INA	J-1335BN3INA	J-1335BE3INA	J-1335BV3INA
1/2	.55	3.10	1.75	J-1335BA4INA	J-1335BN4INA	J-1335BE4INA	J-1335BV4INA
3/4	.71	5.03	2.00	J-1335BA6INA	J-1335BN6INA	J-1335BE6INA	J-1335BV6INA

For complete seal chemical compatibility, consult SVI.

1335 Series

(1) Normally open version (2) Manual operator (optional)



øA	B	B1	C	D	E	F	G	H	I	J
R 3/8"	3.15	3.46	0.59	2.01	2.36	2.09	3.35	1.02	2.24	0.87
R 1/2"										
R 3/4"	3.23	3.54	0.67	2.28	2.83	2.17				

Measurements in Inches

Special constructions:
- Investment cast AIS1316 Body; change letter B for I in part #
- Vacuum systems: consult SVI

Options	Prefix	Suffix	Examples
Water, weather & saline corrosion proof coils	YC		YC1335BN4A
Explosion and weather proof coils	ZC		ZC1335BA4A
Weather proof housing	Y		Y1335BA4A
Explosion & weather proof housing	Z		Z1335BA4A
Manual operation: on main orifice		-M	1335BA4A-M
NPT Connections		T	1335BA4AT
Energized coil indicator light	See Coils		

Coil Characteristics

Electric Power Supply	Coil Type	Power W	VA Inrush	VA Holding	Maximum Temperature °C	Maximum Temperature °F	Available Tensions
AC 50 Hz	MF11C	11	47	18	155°	311°	1
	MH11C	11	47	18	180°	356°	1
AC 60 Hz	MF13C	13	57	23	155°	311°	2
	MH13C	13	57	23	180°	356°	2
DC	MH19C	19	19	19	180°	356°	3

1 = 12,24,110,220,240V 2 = 12,24,110,120,220,240 V 3 = 12,24,110,220 V

Application according to seal material

Seal Material	Buna "N"	Neoprene	EPDM	Viton (FKM)
Maximum Temperature	80°C/176°F	80°C/176°F	150°C/302°F	150°C/302°F
Uses	water, air light oils, kerosene, low & medium	Oxygen, alcohol, argon, other non-corrosive light gases and liquids, vacuum	Water steam, hot water, acetone Freon 12	benzene, naphta aromatics, etc. hot gases, high vacuum Diesel oil

Recommendations for installation:
Place a stainer with a porosity of 140 Micron upstream of the valve
Install the valve in any position, preferably over horizontal pipeline with the coil upright

1342 Series

Main Characteristics:
- Normally Closed or Normally Open
- Pilot Operated
- Body: Forged brass or bronze, stainless steel, etc
- Shape A DIN 43650 connection encapsulated coils
- IP65 and NEMA 4 Protection
- Core tube: 304 s.s. Core spring: 302 s.s. Core: 430 F s.s.
- Shading coil: copper (brass body), silver (s.s. body)

CERTIFIED QUALITY SYSTEM

Underwriters Laboratories Inc.®

Options:
- Energized coil indicator light
- Explosion and/or weather proof coils and housings
- Manual operator on main passage
- Manual operator on pilot orifice

Applications:
- Air & Inert Gases
- Water & Light Liquids
- Thermal Oils
- Steam
- Oxygen
- Gasoline

Not sure which valve you need?
Call SVI and fill out a request form, we'll tell you which valve is best for your needs!

Operating pressure differential

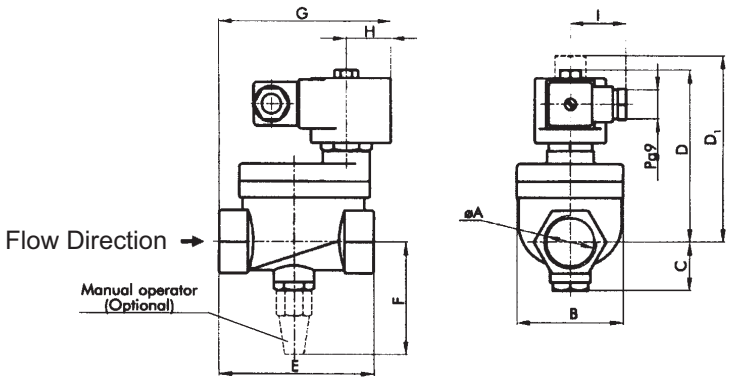
Type	Minimum		Maximum Steam		Maximum other fluids	
	Teflon (PTFE) psi	Others psi	Teflon seal (PTFE) psi	EPDM seal psi	Teflon seal (PTFE) psi	Other seals psi
NC	7.5	3	150	45	255 *	225 *
NO	7.5	3	150	45	150	150

* Advise: when using direct current (DC), a 25% reduction on the maximum operating pressure differential is expected

Technical specifications - brass body

Pipe size (in)	Orifice size (in)	Flow factor (CV)	weight (lbs)	Maximum Temp and Catalog # according to seal material				
				Buna 80°C/176°F	Neoprene 80°C/176°F	EPDM 150°C/306°F	Viton (FKM) 150°C/306°F	Teflon (PTFE) 180°C/356°F
Normally Closed				**SVI Part #**	**SVI Part #**	**SVI Part #**	**SVI Part #**	**SVI Part #**
3/4	.79	6.9	2.6	J-1342BA06	J-1342BN06	J-1342BE06	J-1342BV06	J-1342BT06
1	1.02	13	3.8	J-1342BA08	J-1342BN08	J-1342BE08	J-1342BV08	J-1342BT08
1-1/2	1.50	29	6.8	J-1342BA12	J-1342BN12	J-1342BE12	J-1342BV12	J-1342BT12
2	1.97	47	9.0	J-1342BA16	J-1342BN16	J-1342BE16	J-1342BV16	J-1342BT16
2-1/2	3.00	77	4.2	J-1342BA20	J-1342BN20	J-1342BE20	J-1342BV20	J-1342BT20
3	3.00	99	4.0	J-1342BA24	J-1342BN24	J-1342BE24	J-1342BV24	J-1342BT24
Normally Open				**SVI Part #**	**SVI Part #**	**SVI Part #**	**SVI Part #**	**SVI Part #**
3/4	.79	6.9	2.6	J-1342BAO6INA	J-1342BNO6INA	J-1342BEO6INA	J-1342BVO6INA	J-1342BTO6INA
1	1.02	13	3.8	J-1342BAO8INA	J-1342BNO8INA	J-1342BEO8INA	J-1342BVO8INA	J-1342BTO8INA
1-1/2	1.50	29	6.8	J-1342BA12INA	J-1342BN12INA	J-1342BE12INA	J-1342BV12INA	J-1342BT12INA
2	1.97	47	9.0	J-1342BA16INA	J-1342BN16INA	J-1342BE16INA	J-1342BV16INA	J-1342BT16INA
2-1/2	3.00	77	4.2	J-1342BA20INA	J-1342BN20INA	J-1342BE20INA	J-1342BV20INA	J-1342BT20INA
3	3.00	99	4.0	J-1342BA24INA	J-1342BN24INA	J-1342BE24INA	J-1342BV24INA	J-1342BT24INA

For complete seal chemical compatibility, consult SVI.



øA	B	C	D	D_1	E	F	G	H	I
R 3/4"	2.05	1.02	4.09	4.49	2.80	2.68	3.31	1.06	1.38
R 1"	2.64	1.18	4.25	4.65	3.78	2.83	4.09		
R 1.1/2"	3.19	1.42	4.69	5.08	4.49	3.11	4.80		
R 2"	3.82	1.73	4.92	5.31	5.04	3.35	5.43		
R 2,1/2"-3"	6.42	3.50	8.43	8.82	8.82	6.69	5.28		

Measurements in inches

1342 Series

Special Constructions:
Stainless Steel Body
- AIS1304: change letter B for S in part #
- AIS1316: change letter B for I in part #

Options	Prefix	Suffix	Examples
Water, weather & saline corrosion proof coils	YC		YC1342BA08
Explosion and weather proof coils weather proof coils	ZC		ZC1342BA08
Weather proof housing	Y		Y1342BA08
Explosion & weather proof housing	Z		Z1342BA08
Manual operation: on main orifice		-M	1342BA08-M
Manual operator: on pilot orifice		-MP	1342BA08-MP
NPT Connections		T	1342BA08T
Energized coil indicator light	See Coils		

Coil Characteristics

Electric Power Supply	Coil Type	Power W	VA Inrush	VA Holding	Maximum Temperature C	Maximum Temperature F	Available Tensions
AC 50 Hz	MF11C	11	40	22	155	311	1
	MH11C	11	40	22	180	356	1
AC 60 Hz	MF13C	13	45	27	155	311	2
	MH13C	13	45	27	180	356	2
DC	MH19C	19	19	19	180	356	3

1 = 12,24,110,220,240V 2 = 12,24,110,120,220,240 V 3 = 12,24,110,220 V

Application according to seal material

Seal Material	Buna "N"	Neoprene	EPDM	Viton (FKM)	Teflon (PTFE)
Maximum Temperature	80°C/176°F	80°C/176°F	150°C/302°F	150°C/302°F	180°C/356°F
Uses	water, air light oils, kerosene, low & medium vacuum	Oxygen, alcohol, argon, other non-corrosive light gases and liquids, Freon 12	Water steam, hot water, acetone	benzene, naphta, aromatics, etc. hot gases, high vacuum, diesel oil	steam, hot oils, corrosive fluids

Recommendations for installation:
- Place a stainer with a porosity of 140 Micron upstream of the valve
- Mount the valve preferably over horizontal pipeline with the coil upright
- The valve input pressure must always be greater than the output pressure
- In order to allow the normally closed or normally open valve to open, the minimum pressure indicated for each model must be respected

1390 Series

Main Characteristics:
- Normally Closed and Normally Open
- Pilot Operated
- Brass, stainless steel body
- BSP or NPT threaded connection
- Encapsulated coils. Shape A DIN 43650 connection
- IP65 and NEMA 4 protection
- Core tube: 304 s.s, Core spring: 302 s.s, Core 430 F s.s
- Shading Coil: copper (brass body), silver (s.s. body)

CERTIFIED QUALITY SYSTEM

Underwriters Laboratories Inc.®

Applications:
- Air & Inert Gases
- Water & Light Liquids
- Thermal Oils
- Steam
- Oxygen
- Gasoline

Options:
- Energized coil indicator light
- Explosion and/or weather proof coils and housings
- Manual operator

Not sure which valve you need?
Call SVI and fill out a request form, we'll tell you which valve is best for your needs!

Operating pressure differential

Type	Minimum psi	Maximum Steam: Teflon seal (PTFE) psi	Maximum Steam: EPDM seal psi	Maximum other fluids: Teflonseal (PTFE) psi
NC	1.5	150	45	225 *
NO	1.5	150	45	150

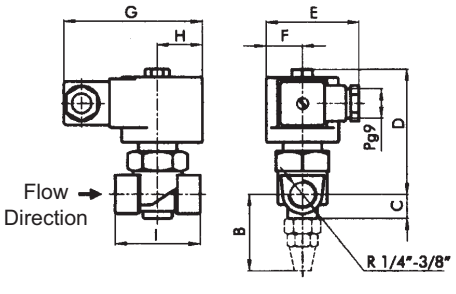
* Advise: when using direct current (DC), a 25% reduction on the maximum operating pressure differential is expected

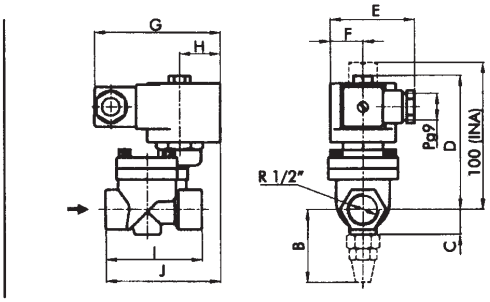
Technical specifications - brass body

Pipe size (in)	Orifice size (in)	Flow factor (CV)	weight (lbs)	Maximum Temp and Catalog # according to seal material: Buna 80°C/176°F	Neoprene 80°C/176°F	EPDM 150°C/306°F	Viton (FKM) 150°C/306°F	Teflon (PTFE) 180°C/356°F
Normally Closed				**SVI Part #**	**SVI Part #**	**SVI Part #**	**SVI Part #**	**SVI Part #**
1/4	.24	.94	1.6	J-1390BA2	J-1390BN2	J-1390BE2	J-1390BV2	J-1390BT2
3/8	.35	1.87	1.4	J-1390BA3	J-1390BN3	J-1390BE3	J-1390BV3	J-1390BT3
1/2	.47	2.75	2.0	J-1390BA4	J-1390BN4	J-1390BE4	J-1390BV4	J-1390BT4
Normally Open				**SVI Part #**	**SVI Part #**	**SVI Part #**	**SVI Part #**	**SVI Part #**
1/4	.24	.94	1.6	J-1390BA2INA	J-1390BN2INA	J-1390BE2INA	J-1390BV2INA	J-1390BT2INA
3/8	.35	1.87	1.4	J-1390BA3INA	J-1390BN3INA	J-1390BE3INA	J-1390BV3INA	J-1390BT3INA
1/2	.47	2.75	2.0	J-1390BA4INA	J-1390BN4INA	J-1390BE4INA	J-1390BV4INA	J-1390BT4INA

For complete seal chemical compatibility, consult SVI.

1390 Series





øA	B	C	D	E	F	G	H	I	J
R 1/4"	1.89	0.59	3.03	2.24	0.87	3.35	1.06	2.05	
R 3/8"									
R 1/2"	1.97	0.67	3.58	2.24	0.87	3.35	1.06	2.56	3.07

Measurements in inches

Special Constructions:
Stainless Steel body
- AIS1304: change letter B for S in part #
- AIS1316: change letter B for I in part #

Options	Prefix	Suffix	Examples
Water, weather & saline corrosion proof coils	YC		YC1390BA4
Explosion and weather proof coils weather proof coils	ZC		ZC1390BA4
Weather proof housing	Y		Y1390BA4
Explosion & weather proof housing	Z		Z1390BA
Manual operation: on main orifice		-M	1390BA4-M
NPT Connections		T	1390BA4T
Energized coil indicator light	See Coils		

Coil Characteristics

Electric Power Supply	Coil Type	Power W	VA Inrush	VA Holding	Maximum Temperature °C	Maximum Temperature °F	Available Tensions
AC 50 Hz	MF11C	11	40	22	155°	311°	1
	MH11C	11	40	22	180°	356°	1
AC 60 Hz	MF13C	13	45	27	155°	311°	2
	MH13C	13	45	27	180°	356°	2
DC	MH19C	19	19	19	180°	356°	3

1 = 12,24,110,220,240V 2 = 12,24,110,120,220,240 V 3 = 12,24,110,220 V

Application according to seal material

Seal Material	Buna "N"	Neoprene	EPDM	Viton (FKM)	Teflon (PTFE)
Maximum Temperature	80°C/176° F	80°C/176°F	150°C/302°F	150°C/302°F	180°C/356°F
Uses	water, air light oils, kerosene, low & medium vacuum	Oxygen, alcohol, argon, other non-corrosive light gases and liquids, Freon 12	Water steam, hot water, acetone	benzene, naphta, aromatics, etc. hot gases, high vacuum, diesel oil	steam, hot oils, corrosive fluids

Recommendations for installation:
- Place a stainer with a porosity of 140 Micron upstream of the valve
- Mount the valve in any position, preferably over horizontal pipeline with the coil upright
- The valve input pressure must always be greater than the pressure downstream from the valve
- For the normally closed or normally open valve to open, the minimum pressure indicated in each model must be observed

1393 Series

Main Characteristics

- Normally closed and normally open
- Direct acting. No minimum differential pressure to operate
- Forged brass, nickel-plated forged brass body
- BSP or NPT threaded connections
- Stainless steel blade type closure Teflon (PTFE) seals
- The straight passage prevents pressure drops and turbulence caused by the fluid's changing direction as is the case with conventional valves
- Shape A DIN 43650 connection encapsulated coils
- IP65 and NEMA 4 protection
- Core tube: 304 s.s., Core spring 302 s.s., Core 430 F s.s.
- Shading coil: copper

CERTIFIED QUALITY SYSTEM

Applications:

- Air & Inert Gases
- Water & Light Liquids
- Thermal Oils
- Steam

Options:

- Energized coil indicator light
- Explosion and weather proof coils and housings

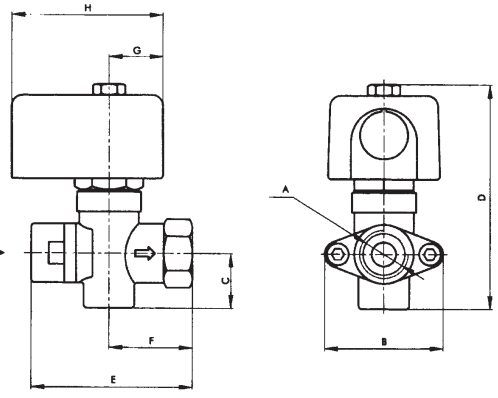
Technical specifications - brass body

Pipe size (in)	Orifice size (in)	Flow factor (CV)	weight (lbs)	Maximum (psi)	Maximum Temp F	Part # Brass	Part # Nickel Plated
	Normally Closed					**SVI Part #**	**SVI Part #**
1/4	.31	2.1	1.8	60	356	J-1393BSO82	J-1393NSO82
3/8	.31	3.28	1.7	60	356	J-1393BSO83	J-1393NSO83
1/2	.31	3.28	1.7	60	356	J-1393BSO84	J-1393NSO84
	Normally Open					**SVI Part #**	**SVI Part #**
1/4	.31	2.1	1.8	60	356	J-1393BSO82NA	J-1393NSO82NA
3/8	.31	3.28	1.7	60	356	J-1393BSO83NA	J-1393NSO83NA
1/2	.31	3.28	1.7	60	356	J-1393BSO84NA	J-1393NSO84NA

Options	Prefix	Suffix	Examples
Weather proof housing	Y		Y1390BA4
Explosion & weather proof housing	Z		Z1390BA
NPT Connections		T	1390BA4T

Coil Characteristics

Electric Power Supply	Coil Type	Power W	VA Inrush	VA Holding	Maximum Temperature C	Maximum Temperature F	Available Tensions
AC 50 Hz	M20H	20	66	33	180	356	1
AC 60 Hz	M20H	20	66	33	180	356	2
1 = 12,24,110,220,240V		2 = 12,24,110,120,220,240 V			3 = 12,24,110,220 V		



A	B	C	D	E	F	G	H
R 1/4"							
R 3/8"	2.13	0.98	4.09	2.87	1.50	0.98	2.68
R 1/2"							

Measurements in inches

Recommendations for installation:

- Place a stainer with a porosity of 140 Micron upstream of the valve
- Mount **only** over horizontal pipeline with the coil upright

2026 Series

Main Characteristics:
- Normally closed
- Direct Acting. No minimum differential pressure to operate
- Forged brass compact body
- BSP or NPT threaded connectors
- Encapsulated minicoils
- Shape B DIN 43650 connection
- IP65 and NEMA 4 protection
- Response time with air at 10 milliseconds
- Approximate weight .38 lbs
- Core tube: 305 s.s., Core spring 302 s.s., Core: 430 F s.s.
- Shading coil: copper

CERTIFIED QUALITY SYSTEM

Options	Prefix	Suffix	Examples
NPT Connections		T	2026BA121T

Applications:
- Air & Inert Gases
- Water & Light Liquids
- Steam
- Oxygen
- Gasoline

Not sure which valve you need?
Call SVI and fill out a request form, we'll tell you which valve is best for your needs!

Technical specifications

Pipe size (in)	Orifice size (in)	Flow factor (CV)	Maximum psi AC	Maximum psi DC	Maximum Temp and SVI Part # Buna 80°C/176°F	Neoprene 80°C/176°F	EPDM 150°C/302°F	Viton (FKM) 150°C/302°F
Normally closed - Minimum-pressure differential is zero								
					SVI Part #	**SVI Part #**	**SVI Part #**	**SVI Part #**
1/8	.049	.06	750	550	J-2026BA121	J-2026BN121	J-2026BW121	J-2026BV121
1/8	.068	.11	300	225	J-2026BA171	J-2026BN171	J-2026BE171	J-2026BV171
1/8	.088	.15	150	112	J-2026BA221	J-2026BN221	J-2026BE221	J-2026BV221
1/8	.118	.30	60	45	J-2026BA301	J-2026BN301	J-2026BE301	J-2026BV301
1/4	.049	.06	750	550	J-2026BA122	J-2026BN122	J-2026BE122	J-2026BV122
1/4	.068	.11	300	225	J-2026BA172	J-2026BN172	J-2026BE172	J-2026BV172
1/4	.088	.15	150	112	J-2026BA222	J-2026BN302	J-2026BE302	J-2026BV302
1/4	.118	.36	60	45	J-2026BA302	J-2026BN302	J-2026BE302	J-2026BV302

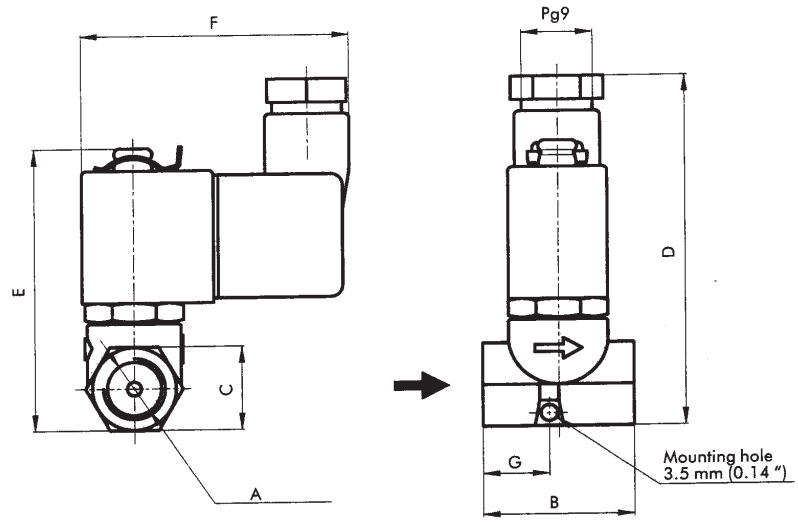
For complete seal chemical compatibility, consult SVI.

Coil Characteristics

Electric Power Supply	Coil Type	Power W	VA Inrush	VA Holding	Maximum Temperature °C	Maximum Temperature °F	Available Tensions
AC 50 Hz	GF06C	6	10.8	7.5	155°	311°	1
AC 60 Hz	GF06C	6	12.9	8.0	155°	311°	2
DC	GF06C	6	6	6	155°	311°	3

1 = 12, 24, 110, 220, 240V 2 = 12, 24, 110, 120, 220, 240 V 3 = 12,24,110,220 V

Recommendations for installation:
- Place a stainer with a porosity of 140 Micron upstream of the valve
- Mount any position, preferably over horizontal pipeline with the coil upright



A	B	C	D	E	F	G
1/8"	1.26	0.71	2.99	2.40	2.24	0.55
1/4"						

Measurements in inches

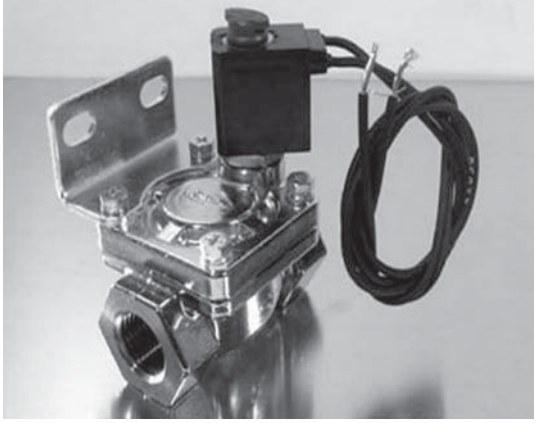
2026 Series

Application according to seal material				
Seal Material	Buna "N"	Neoprene	EPDM	Viton (FKM)
Maximum Temperature	80°C/176°F	80°C/176°F	150°C/302°F	150°C/302°F
Uses	water, air light oils, kerosene, low & medium vacuum	Oxygen, alcohol, argon, other non-corrosive light gases and liquids, Freon 12	Water steam, hot water, acetone	benzene, naphta, aromatics, etc. hot gases, high vacuum, diesel oil

2036 Chrome Series

Chrome Plated Solenoid Valves

- For high flow, high reliability air suspension systems
- 300 psi inlet pressure capability
- 1/2" and 3/8" sizes
- DIN connection for easy wiring
- Compact size for tight locations
- High ambient temperature rating (176° F) for under hood applications



Port Size: 1/2" NPT
Finish: Chrome Plated
Orifice Size: 1/2"
CV rating: 5.5
Max Pressure: 300 psi

Port Size: 3/8" NPT
Finish: Chrome Plated
Orifice Size: 3/8"
CV Rating: 2.8
Max Pressure: 300 psi

Applications:

- Air spring kits for load assist
- Full air suspension systems for lowered vehicles
- Custom bike suspensions
- Air & Inert Gases
- Water & Light Liquids

2036 Series

Main characteristics
- Normally closed
- Pilot operated
- Forged brass body
- BSP or NPT threaded connections
- Plastic or metal core diaphragm
- Shape B DIN 43650 connection encapsulated minicoils
- IP65 and NEMA4 protection
- Core tube: 304 s.s Core spring 302 s.s. Core 430 F s.s.
- Shading coil: copper

CERTIFIED QUALITY SYSTEM

Applications:
- Air & Inert Gases
- Water & Light Liquids

SVI Also Supplies
Steel Hydraulic line tubing and tube fittings for fluid delivery systems

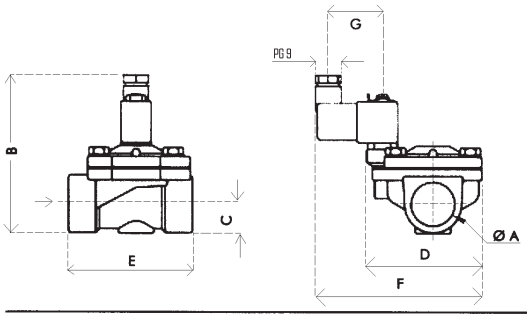
Operating pressure differential			
Size	Minimum psi	Maximum psi	Maximum Steam EPDM seal psi
3/8	3	225	45
1/2	3	225	45
3/4	3	225	45
1	4.5	225	45

* Advise: when using direct current (DC), a 25% reduction on the maximum operating pressure differential is expected

Technical specifications							
Connect (in)	Orifice size (in)	Flow factor (CV)	Weight Lbs	Maximum Temp and SVI Part # Buna 80°C/176°F	Neoprene 80°C/176°F	EPDM 150°C/302°F	Viton (FKM) 150°C/302°F
				SVI Part #	**SVI Part #**	**SVI Part #**	**SVI Part #**
3/8	.50	2.90	.7	J-2036BA03	J-2036BN03	J-2036BE03	J-2036BV03
1/2	.50	4.20	.7	J-2036BA04	J-2036BN04	J-2036BE04	J-2036BV04
3/4	.63	6.40	1.4	J-2036BA06	J-2036BN06	J-2036BE06	J-2036BV06
1	1	10.50	2.2	J-2036BA08	J-2036BN08	J-2036BE08	J-2036BV08

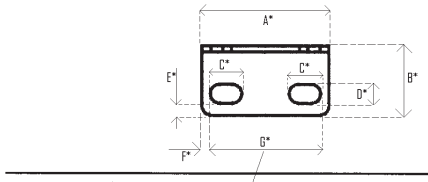
For complete seal chemical compatibility, consult SVI.

2036 Series



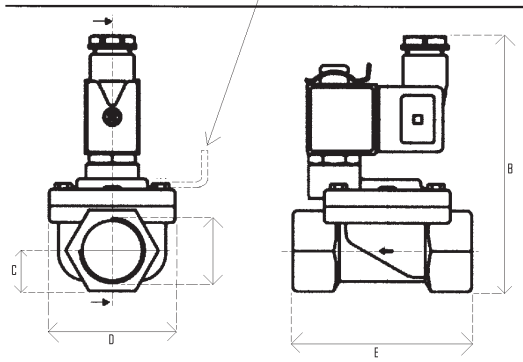
øA	B	C	D	E	F	G
R 3/8"	3.74	0.51	1.77	2.52		
R 1/2"						
R 3/4"	4.06	0.67	2.05	2.83		
R 1"	4.37	0.79	3.19	3.43	4.65	1.38

Measurements: ins



A*	B*	C*	D*	E*	F*	G*
2.07	1.14	0.51	0.31	0.20	0.14	1.79

Measurements: ins



øA	B	C	D	E
R 3/8"	3.74	0.51	1.77	2.52
R 1/2"				
R 3/4"	4.06	0.67	2.05	2.86

Measurements: ins

Options	Prefix	Suffix	Examples
Mounting Bracket		-MB	2036BA03-MB
NPT Connections		T	2036BA06T
Energized coil indicator light	See Coils		

Coil Characteristics

Electric Power Supply	Coil Type	Power W	VA Inrush	VA Holding	Maximum Temperature °C	Maximum Temperature °F	Available Tensions
AC 50 Hz	GF06C	6	10.8	7.5	155°	311°	1
AC 60 Hz	GF06C	6	12.9	8.0	155°	311°	2
DC	GF06C	6	6	6	155°	311°	3

1 = 12, 24, 110, 220, 240V 2 = 12, 24, 110, 120, 220, 240 V 3 = 12,24,110,220 V

Application according to seal material

Seal Material	Buna "N"	Neoprene	EPDM	Viton (FKM)
Maximum Temperature	80°C/176°F	80°C/176°F	150°C/302°F	150°C/302°F
Uses	water, air light oils, kerosene, low & medium vacuum	Oxygen, alcohol, argon, other non-corrosive light gases and liquids, Freon 12	Water steam, hot water, acetone	benzene, naphta, aromatics, etc. hot gases, high vacuum, diesel oil

Recommendations for installation:

- Place a stainer with a porosity of 140 Micron upstream of the valve
- Mount preferably over horizontal pipeline with the coil upright

Coils

Valve Series	Voltage	Connector	SVI Part #	Description
	240V/AC60	Pg9	J-G42CB82U1	240V/AC60 or 220V/AC50 'G' overm. coil w/DIN con
	24V/AC50	Pg9	J-G32C033U1	'G' Overmold Coil w/DIN connector
2026 All	220V/AC60	Pg9	J-G41CB36U1	'G' Overmold Coil w/DIN connector
	120V/AC60	Pg9	J-G39C709U1	120 V/AC60 or 110V/AC500 'G' Overm. Coil w/DIN con
2036 All	24V/AC60	Pg9	J-G32C709U1	'G' Overmold Coil w/DIN connector
	24V/DC	Pg9	J-G34C087U1	'G' Overmold Coil w/DIN connector
	12V/DC	Pg9	J-G31C022U1	'G' Overmold Coil w/DIN connector
	36V/DC	Leads	J-G13T200U	'G' Overmold Coil with wires
	12V/DC	Leads	J-G31T022U	'G' Overmold Coil with wires

Valve Series	Voltage	Connector	SVI Part #	Description
	12V/DC	Leads	J-S92HZ364	'S' Coil w/Leads
	24V/DC	Leads	J-S65H0124R	'S' Coil w/Leads
1314 All	110V/DC	Leads	J-S30H254	'S' Coil w/Leads
Y1314 All	24V/AC60	Leads	J-SDOHY783	'S' Coil w/Leads
Z1314 All	120V/AC60	Leads	J-SH65C012U	'S' Coil w/Leads
	240-220V/AC60	Leads	J-SH45C044U	'S' Coil w/Leads
	24V/AC50	Leads	J-SDOHY84	'S' Coil w/Leads
	110V/AC50	Leads	J-SH65C014U	'S' Coil w/Leads
	220V/AC50	Leads	J-SH24C770U	'S' Coil w/Leads

Valve Series	Voltage	Connector	SVI Part #	Description
	120V/AC60	Pg9	J-MH25CO92U1	Overmold 'M' Coil w/pg9 DIN connector
	240V/AC60	Pg9	J-MH18C384U1	Overmold 'M' Coil w/Pg9 DIN connector
	12V/DC	Pg9	J-MH51CZ73U1	Overmold 'M' Coil w/Pg9 DIN connector
	24V/DC	Pg9	J-MH36CO27U1	Overmold 'M' Coil w/Pg9 DIN connector
	48V/DC	Pg9	J-MH25C103UR1	Overmold 'M' Coil w/Pg9 DIN connector
	24V/AC50	Pg9	J-MH57CZ44U1	Overmold 'M' Coil w/Pg9 DIN connector
	110V/AC50	Pg9	J-MH25C103U1	Overmold 'M' Coil w/Pg9 DIN connector
	220V/AC50	Pg9	J-MH18C406U1	Overmold 'M' Coil w/Pg9 DIN connector
	110V/DC	Pg9	J-MH17C578U1	Overmold 'M' Coil w/Pg9 DIN connector
	12V/AC50	Pg9	J-MH81CZ11U1	Overmold 'M' Coil w/Pg9 DIN connector
1327 NC	24V/AC60	Pg9	J-MH57CZ40U1	Overmold 'M' Coil w/Pg9 DIN connector
1335 NC 1342 NC 1390 NC 1393 NC	120V/AC60	1/2" NPT	J-MH25CO92U3	Overmold 'M' Coil w/ 1/2" NPT DIN connector
	240V/AC60	1/2" NPT	J-MH18C384U3	Overmold 'M' Coil w/ 1/2" NPT DIN connector
	12V/DC	1/2" NPT	J-MH51CZ73U3	Overmold 'M' Coil w/ 1/2" NPT DIN connector
	24V/DC	1/2" NPT	J-MH36CO27U3	Overmold 'M' Coil w/ 1/2" NPT DIN connector
	48V/DC	1/2" NPT	J-MH25C103UR3	Overmold 'M' Coil w/ 1/2" NPT DIN connector
	24V/AC50	1/2" NPT	J-MH57CZ44U3	Overmold 'M' Coil w/ 1/2" NPT DIN connector
	110V/AC50	1/2" NPT	J-MH25C103U3	Overmold 'M' Coil w/ 1/2" NPT DIN connector
	220V/AC50	1/2" NPT	J-MH18C406U3	Overmold 'M' Coil w/ 1/2" NPT DIN connector
	110V/DC	1/2" NPT	J-MH17C578U3	Overmold 'M' Coil w/ 1/2" NPT DIN connector
	12V/AC50	1/2" NPT	J-MH81CZ11U3	Overmold 'M' Coil w/ 1/2" NPT DIN connector
	24V/AC60	1/2" NPT	J-MH57CZ40U3	Overmold 'M' Coil w/ 1/2" NPT DIN connector

Valve Series	Voltage	Connector	SVI Part #	Description
	120V/AC60	Conduit Leads YC	MH25YO92U	Overmold 'M' Coil conduit w/leads NEMA 4.x
YC1327 NC	240V/AC60	Conduit Leads YC	MH18Y384U	Overmold 'M' Coil conduit w/Leads NEMA 4.x
YC 1335 NC	12V/DC	Conduit Leads YC	MH51YZ73U	Overmold 'M' Coil conduit w/Leads NEMA 4.x
YC 1342 NC	24 V/DC	Conduit Leads YC	MH36YO27U	Overmold 'M' Coil conduit w/Leads NEMA 4.x
YC 1390 NC	24 V/AC50	Conduit Leads YC	MH57YZ44U	Overmold 'M' Coil conduit w/Leads NEMA 4.x
YC 1393 NC	110 V/AC50	Conduit Leads YC	MH25Y103U	Overmold 'M' Coil conduit w/Leads NEMA 4.x
	220 V/AC50	Conduit Leads YC	MH18Y406U	Overmold 'M' Coil conduit w/Leads NEMA 4.x
	110 V/DC	Conduit Leads YC	MH17Y578U	Overmold 'M' Coil conduit w/Leads NEMA 4.x
	12 V/AC 50	Conduit Leads YC	MH81YZ11U	Overmold 'M' Coil conduit w/Leads NEMA 4.x
	24 V/AC60	Conduit Leads YC	MH57YZ40U	Overmold 'M' Coil conduit w/Leads NEMA 4.x

Coils continued on following page

Coils

Valve Series	Voltage	Connector	SVI Part #	Description
	120V/AC60	Conduit Leads ZC	J-MH25ZO92U	Overmold 'M'Coil conduit w/leads Expl. Proof
	240V/AC60	Conduit Leads ZC	J-MH18Z384U	Overmold 'M'Coil conduit w/leads Expl. Proof
ZC1327 NC	12V/DC	Conduit Leads ZC	J-MH51ZZ73U	Overmold 'M'Coil conduit w/leads Expl. Proof
ZC1335 NC	24 V/DC	Conduit Leads ZC	J-MH36ZO27U	Overmold 'M'Coil conduit w/leads Expl. Proof
ZC 1342 NC	24 V/AC50	Conduit Leads ZC	J-MH57ZZ44U	Overmold 'M'Coil conduit w/leads Expl. Proof
ZC 1390 NC	110 V/AC50	Conduit Leads ZC	J-MH25Z103U	Overmold 'M'Coil conduit w/leads Expl. Proof
ZC 1393 NC	220 V/AC50	Conduit Leads ZC	J-MH18Z406U	Overmold 'M'Coil conduit w/leads Expl. Proof
	110 V/DC	Conduit Leads ZC	J-MH17Z578U	Overmold 'M'Coil conduit w/leads Expl. Proof
	12 V/AC 50	Conduit Leads ZC	J-MH81ZZ11U	Overmold 'M'Coil conduit w/leads Expl. Proof
	24 V/AC60	Conduit Leads ZC	J-MH57ZZ40U	Overmold 'M'Coil conduit w/leads Expl. Proof

Valve Series	Voltage	Connector	SVI Part #	Description
	120 V/AC60	Pg9	J-MH25CO92UI1	Overmold 'M' N. Open coil w/pg9 DIN connector
	240V/AC60	Pg9	J-MH18C384UI1	Overmold 'M' N. Open coil w/pg9 DIN connector
	12V/DC	Pg9	J-MH51CZ73UI1	Overmold 'M' N. Open coil w/pg9 DIN connector
	24V/DC	Pg9	J-MH36CO27UI1	Overmold 'M' N. Open coil w/pg9 DIN connector
	48V/DC	Pg9	J-MH25C103UIT1	Overmold 'M' N. Open coil w/pg9 DIN connector
	24V/AC50	Pg9	J-MH57CZ44UI1	Overmold 'M' N. Open coil w/pg9 DIN connector
	110V/AC50	Pg9	J-MH25C103UI1	Overmold 'M' N. Open coil w/pg9 DIN connector
	220V/AC50	Pg9	J-MH18C406UI1	Overmold 'M' N. Open coil w/pg9 DIN connector
	110V/DC	Pg9	J-MH17C578UI1	Overmold 'M' N. Open coil w/pg9 DIN connector
1327 NO	12V/AC50	Pg9	J-MH81CZ11UI1	Overmold 'M' N. Open coil w/pg9 DIN connector
1335 NO	24V/AC60	Pg9	J-MH57CZ40UI1	Overmold 'M' N. Open coil w/pg9 DIN connector
1342 NO				
1390 NO	120 V/AC60	1/2" NPT	J-MH25CO92UI3	Overmold 'M' N. Open coil w/1/2" NPT DIN connector
1393 NO	240V/AC60	1/2" NPT	J-MH18C384UI3	Overmold 'M' N. Open coil w/1/2" NPT DIN connector
	12V/DC	1/2" NPT	J-MH51CZ73UI3	Overmold 'M' N. Open coil w/1/2" NPT DIN connector
	24V/DC	1/2" NPT	J-MH36CO27UI3	Overmold 'M' N. Open coil w/1/2" NPT DIN connector
	48V/DC	1/2" NPT	J-MH25C103UIR3	Overmold 'M' N. Open coil w/1/2" NPT DIN connector
	24V/AC50	1/2" NPT	J-MH57CZ44UI3	Overmold 'M' N. Open coil w/1/2" NPT DIN connector
	110V/AC50	1/2" NPT	J-MH25C103UI3	Overmold 'M' N. Open coil w/1/2" NPT DIN connector
	220V/AC50	1/2" NPT	J-MH18C406UI3	Overmold 'M' N. Open coil w/1/2" NPT DIN connector
	110V/DC	1/2" NPT	J-MH17C578UI3	Overmold 'M' N. Open coil w/1/2" NPT DIN connector
	12V/AC50	1/2" NPT	J-MH81CZ11UI3	Overmold 'M' N. Open coil w/1/2" NPT DIN connector
	24V/AC60	1/2" NPT	J-MH57CZ40UI3	Overmold 'M' N. Open coil w/1/2" NPT DIN connector

Valve Series	Voltage	Connector	SVI Part #	Description
	120 V/AC60	Conduit Leads YC	J-MH25Y092UI	Overmold 'M' N. Open coil conduit w/leads NEMA 4.x
	240V/AC60	Conduit Leads YC	J-MH18Y384UI	Overmold 'M' N. Open coil conduit w/leads NEMA 4.x
	12V/DC	Conduit Leads YC	J-MH51YZ73UI	Overmold 'M' N. Open coil conduit w/leads NEMA 4.x
YC1327 NO	24V/DC	Conduit Leads YC	J-MH36YO27UI	Overmold 'M' N. Open coil conduit w/leads NEMA 4.x
YC1335 NO	24V/AC50	Conduit Leads YC	J-MH57YZ44UI	Overmold 'M' N. Open coil conduit w/leads NEMA 4.x
YC1342 NO	110V/AC50	Conduit Leads YC	J-MH25Y103UI	Overmold 'M' N. Open coil conduit w/leads NEMA 4.x
YC1390 NO	220V/AC50	Conduit Leads YC	J-MH18Y406UI	Overmold 'M' N. Open coil conduit w/leads NEMA 4.x
YC1393 NO	110V/DC	Conduit Leads YC	J-MH17Y578UI	Overmold 'M' N. Open coil conduit w/leads NEMA 4.x
	12V/AC50	Conduit Leads YC	J-MH81YZ11UI	Overmold 'M' N. Open coil conduit w/leads NEMA 4.x
	24V/AC60	Conduit Leads YC	J-MH57YZ40UI	Overmold 'M' N. Open coil conduit w/leads NEMA 4.x

Valve Series	Voltage	Connector	SVI Part #	Description
	120 V/AC60	Conduit Leads ZC	J-MH25ZO92UI	Overmold 'M' N. Open coil w/Leads Explosion Proof
	240V/AC60	Conduit Leads ZC	J-MH18Z384UI	Overmold 'M' N. Open coil w/Leads Explosion Proof
ZC1327 NO	12V/DC	Conduit Leads ZC	J-MH51ZZ73UI	Overmold 'M' N. Open coil w/Leads Explosion Proof
ZC1335 NO	24V/DC	Conduit Leads ZC	J-MH36ZO27UI	Overmold 'M' N. Open coil w/Leads Explosion Proof
ZC1342 NO	24V/AC50	Conduit Leads ZC	J-MH57ZZ44UI	Overmold 'M' N. Open coil w/Leads Explosion Proof
ZC1390 NO	110V/AC50	Conduit Leads ZC	J-MH25Z103UI	Overmold 'M' N. Open coil w/Leads Explosion Proof
ZC1393 NO	220V/AC50	Conduit Leads ZC	J-MH18Z406UI	Overmold 'M' N. Open coil w/Leads Explosion Proof
	110V/DC	Conduit Leads ZC	J-MH17Z578UI	Overmold 'M' N. Open coil w/Leads Explosion Proof
	12V/AC50	Conduit Leads ZC	J-MH81ZZ11UI	Overmold 'M' N. Open coil w/Leads Explosion Proof
	24V/AC60	Conduit Leads ZC	J-MH57ZZ40UI	Overmold 'M' N. Open coil w/Leads Explosion Proof

Photocopy Form. Fill Out Form. Fax to 800-899-1784 • Call: 800-321-8173

Request for Information / Quotation Form
Solenoid Valve

Company:			
Name:	**Title:**		
Address:	**City:**	**State:**	**Zip:**
Telephone:	**Ext:**	**Fax:**	
E-Mail:			
Your Reference:	**Date:**		

Valve Application Information:

Make and Model Number of Valve Now in Service:

1. Valve Type and Mode of Operation	**Size (inches)**
2-way	
3-way	
4-way	
5-way	
Normally Closed	
Normally Open	
Other	

2. Fluid/Medium	**Yes/No**
Air	
Gas	
Water	
Steam	
Light Oil	
Other (Specify)	

3. Body Materials	**Yes/No**
SS	
Brass	
Aluminum	
Other (specify)	

4. Pressure	**PSI**
Min. Differential Pressure	
Max. Differential Pressure	

5. Orifice Size (mm)	

6. Temperature	**˚F**
Fluid/Medium Max. Temp.	
Ambient Max. Temp.	
Ambient Min. Temp.	

7. Voltage (REQUIRED)	**AC**	**DC**
Operational Voltage		
50 or 60 Hz.		

8. Electrical Connection Type	

9. Additional Information:

SVI International, Inc.

800-321-8173 • Fax: 800-899-1784
155 Harvestore Drive • DeKalb, IL 60115

www.sviinternational.com

TERMS AND CONDITIONS OF THE
SALES ORDER
FOR SVI INTERNATIONAL, INC.

1. **GENERAL**. The terms and conditions of sales order outlined herein shall apply to the sale by SVI INTERNATIONAL, INC. (hereinafter referred to as "Company") of the items described on the facing page (hereinafter referred to as "Merchandise") to Purchaser.
2. **DELIVERY**. Delivery shall be deemed to be complete when the Merchandise has been shipped F.O.B. Company's plants in DeKalb, Illinois, Montclair, California; and Hanover, Maryland ("Company's plants"). Shipments are subject to delays from causes or contingencies beyond the reasonable control of the Company. When otherwise not specified, shipments will be made in standard containers via carrier which, in the judgment of the Company, will result in the most practical method. Title and right of possession will pass to the Purchaser upon receipt by the carrier at the shipping point. If a customer of the Company should specify a specific carrier's method of shipment (i.e. UPS Next Day Air) and that carrier does not perform to the customer's expectations, freight credit to a customer's account will not be issued unless the Company can first obtain a credit.
3. **RISK OF LOSS**. Identification of the Merchandise under Uniform Commercial Code (hereinafter referred to as "UCC") Section 2-501 shall take place at the moment of shipment F.O.B. Company's plants. Risk of loss shall pass to the Purchaser when the Merchandise is shipped from the Company's plants.
4. **TITLE**. Title to the merchandise shall transfer to the Purchaser when the Merchandise is shipped from the Company's plants.
5. **WARRANTIES**. The Company guarantees its products to be free from defects in workmanship and raw materials for a period of one year from date of purchase. THIS WARRANTY IS EXPRESSLY IN LIEU OF ANY AND ALL WARRANTIES EXPRESS OR IMPLIED. COMPANY DOES NOT WARRANT THE MERCHANDISE IS MERCHANTABLE OR FIT FOR ANY PARTICULAR PURPOSE. Company's liability for breach of the terms of this Agreement, including any warranty, is limited to either refund of the invoice price of the Merchandise or at Company's option, replacement of the Merchandise free of charge, including transportation charges but not including the cost of labor. Purchaser has not relied on any statement or upon the conduct of Company with respect to the prospective use of the merchandise. Company shall not be liable for and Purchaser waives any and all claims for any loss or damage, directly or indirectly, arising from the use of the Merchandise and for punitive, incidental or consequential damages, including, but not limited to, damages to property, for loss of use, loss of time, loss of profit or loss of income. The Company does not authorize the sale of our products under any other warranty, expressed or implied. **Please note:** Electrical components and cylinder or shaft seals are not covered under warranty.
6. **SETOFF**. All claims for money due or to become due from the Company shall be subject to deduction by the Company for any setoff or counterclaim arising out of this or any other claims of the Company or its affiliated companies, whether such setoff or counterclaim arose before or after any assignment by Purchaser.
7. **INDEMNIFICATION**. Purchaser agrees to indemnify the Company and hold it harmless from and against all claims, liability, loss, damage or expense, including reasonable counsel fees, arising from or by reason of any modifications or alterations made by Purchaser. If a customer of the Company modifies or alters any part, in any manner whatsoever, or uses any part in departure from recommended performance specifications, said customer agrees to indemnify and hold the Company harmless from and against all liability and expenses based on damage to property or injury to or death of any person arising out of or attributable to such modified or altered part. Further, the Company will not accept any such modified or altered part for credit to a customer's account.
8. **FREIGHT POLICY**. Freight charges are prepaid and added to invoice or collect FOB shipping point. Note: All customers are responsible for all carrier shipping costs, fees, surcharges, etc. including order refusal and return fees.
9. **RETURN POLICY**. To return a part for credit or inspection, Purchaser must first contact our Main Office in Illinois, to obtain a Return Merchandise Form. Once Purchaser has obtained this form, the parts can be returned freight prepaid only. The Return form must be included with the shipment. Parts returned to the Company without the approved form will be returned freight collect to the shipper or refused. Returns must be initiated within 30 days of the invoice date. The Return Forms are valid for 30 days, from the date of issue. All Returns are subject to restocking charges. Return parts brought into our remote warehouses, will not be accepted by our personnel, without a Return Merchandise Form from the Main Office. Parts which have been used in any way or manner, including any installation or incorporation into a lift, hoist, or other equipment, shall NOT be eligible for return whether or not a Return form has been assigned. **Please note:** Electrical parts or components are not returnable for credit. This includes all switches, pushbuttons, relays, electric motors, capacitors, fuses, solenoids, power units with wiring issues or any other electrical items. Custom, built to order, special order, and non-stocked genuine parts are non-returnable.
10. **RESTOCK CHARGE**. Returns are subject to a restocking charge. Refusals are subject to the same restocking charge plus the cost of outbound and return freight charges and/or fees incurred by the Company due to shipment refusal.
11. **PRICES AND PAYMENTS**. All prices are subject to change without notice. All prices are F.O.B. shipping point. The Company standard terms are net 30 days, C.O.D. company check, C.O.D. cash, VISA, MasterCard, Discover or American Express. However, if in the judgment of the Company, the financial condition of the Purchaser at any time does not justify shipment according to standard terms of payment, the Company may require full or partial payment in advance.
12. **INTERPRETATION**. This sales order is intended by the parties as a complete and exclusive statement of the terms of their agreement. It supersedes all prior agreements, written or oral. No course of prior dealings between the parties and no usage of the trade shall be relevant to supplement or explain any terms used in this sales order. Acceptance or acquiescence in a course of performance rendered under this purchase order shall not be relevant to determine the meaning of this sales order even though the accepting or acquiescing party has knowledge of the nature of the performance and opportunity for objection. Whenever a term defined by the UCC is used in this sales order the definition contained in the UCC shall control.
13. **MODIFICATION**. This sales order can be modified or rescinded only by a writing signed by both parties.
14. **WAIVER**. No claim or right arising out of a breach of this sales order can be discharged in whole or in part by a waiver or renunciation of the claim or right unless such waiver or renunciation is supported by consideration and is in writing signed by the aggrieved party.
15. **ASSIGNMENT**. No right or interest in this sales order shall be assigned by either party without the written consent of the other and no delegation of any obligation owed, or of the performance of any obligation by either the Company or Purchaser shall be made without the written consent of the other party. Any attempted assignment or delegation not made in conformity with this paragraph shall be wholly void and totally ineffective for all purposes.
16. **TIME TO PERFORM AND BRING ACTION**. Time is of the essence of this sales order. Any action for breach of this sales order shall be commenced within two (2) years after the cause of action has accrued. Any party who loses any litigation shall reimburse the other party for costs including reasonable attorney's fees. The exclusive jurisdiction for any legal action shall be the Circuit Court of DeKalb County, Illinois.
17. **APPLICABLE LAW**. This sales order shall be governed by the UCC of Illinois as effective and in force on the date of this sales order.