

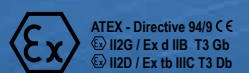


# Solenoid Valves Magnetic Level Switches

3000 MODELS FOR ALL TYPES OF FLUIDS



Approvals and Certificates



Jefferson Solenoid Valves



**Jefferson Solenoid Valves** is a leading manufacturer with more than 40 years experience developing a complete line of high quality solenoid valves and level controls. Jefferson's products have international recognition in accordance with approvals of UL, CSA and ISO 9001, among others, which has permitted **Jefferson Solenoid Valves** to introduce its product range in most countries world wide.

Jefferson's current catalog of standard products includes over 3000 models between solenoid valves and magnetic level switches which satisfy different needs and industrial requirements to control the most diverse liquids and gases such as water, air, steam, oils, refrigerants, oxygen, liquid nitrogen, corrosive fluids and many others.

Jefferson's manufacturing plant is located in Buenos Aires city. It includes machining and perforation centers and specially designed computer assisted machinery for complete production.

Jefferson continues to grow, by investing in machinery, technology and human resources, increasing its presence in main industrial projects and jobs, creating technical solutions for the future, anticipating today - as in it's beginnings - the challenges provided by the industry.

**Jefferson, a leader through all times.** This is a Quick Guide to Jefferson's products which covers over 3000 models.

The technical information included in this Guide is only for reference purposes. Please contact **Jefferson's Technical Support** or your Distributor if you cannot find the product you need or if you need further specifications and any additional information. **CAUTION:** Users should consult [www.jefferson.com.ar](http://www.jefferson.com.ar) or **Jefferson's Product Catalog** to see complete specifications for the products selected from this Guide.

#### NECESSARY INFORMATION TO SELECT A VALVE:



- What is the valve application
- Connection Size and Type
- Fluid Type
- Fluid Temperature
- Differential Pressure
- Voltage

#### Other important information:

Required flow, Orifice size, Ambient temperature, Body material, Seal material.







# General Purpose Valves

2 Way Solenoid Valves for Water, air, steam, gasoline, gasoil, other gases and light oils up to 356°F.  
Bodies in brass, bronze, stainless steel. Flanged or threaded connections. Normally Closed or Normally Open.



## Water, air, gases and light oils, up to 176 °F

Direct Acting and Pilot Operated, Normally Open and Normally Closed, Brass or Stainless Steel Body,  
Connections from 1/8" to 3", Wide Range of Pressure, Buna "N" seals (Neoprene, EPDM, PTFE and FKM available).



2026



1327



2036



2036 Steam



1335



1342

Connection Size	Normally Closed			Coil size
	Model # (Brass / Buna N)	Pressure (psi)		
		Min.	Max.	
1/8"	2026BA221T	0	108	G
1/4"	2026BA222T	0	108	
1/4"	1327BA222T	0	300	M
3/8"	2036BA03T	3	218	G
1/2"	2036BA04T	3	218	
3/4"	2036BA06T	3	218	
1"	2036BA08T	4.5	145	
1 1/2"	1342BA12T	3	225	M
2"	1342BA16T	3	225	
2 1/2"	1342BA20T	3	225	
3"	1342BA24T	3	225	

Connection Size	Normally Open			Coil size
	Model # (Brass / Buna N)	Pressure (psi)		
		Min.	Max.	
1/4"	1327BA222INAT	0	180	M
3/8"	1335BA3INAT	1.5	150	
1/2"	1335BA4INAT	1.5	150	
3/4"	1335BA6INAT	1.5	150	
1"	1342BA08INAT	3	150	
1 1/2"	1342BA12INAT	3	150	
2"	1342BA16INAT	3	150	
2 1/2"	1342BA20INAT	3	150	
3"	1342BA24INAT	3	150	

## Steam and hot water service up to 356 °F

Handles the challenges of High-Temperature Fluids.

High Temperature Class H Coils help provide long and reliable service life.

Direct Acting and Pilot Operated, Normally Open and Normally Closed, Brass or Stainless Steel Body,  
Connections from 1/8" to 3", Wide Range of Pressure, EPDM or PTFE discs.

Connection Size	Normally Closed			Coil size
	Hot Water 302° F Model # (Brass / EPDM)	Pressure (psi)		
		Min.	Max.	
1/8"	2026BE221T	0	108	G
1/4"	2026BE222T	0	108	
1/4"	1327BE222T	0	300	M
3/8"	2036BE03T	3	150	G
1/2"	2036BE04T	3	150	
3/4"	2036BE06T	3	150	
1"	2036BE08T	4.5	150	
1 1/2"	1342BE12T	7.5	150	M
2"	1342BE16T	7.5	150	
2 1/2"	1342BE20T	7.5	150	
3"	1342BE24T	7.5	150	

Connection Size	Normally Closed			Coil size
	Steam 356° F Model # (Brass / PTFE)	Pressure (psi)		
		Min.	Max.	
1/4"	1327BT222T	0	300	M
3/8"	2036BT03T	3	150	G
1/2"	2036BT04T	3	150	
3/4"	2036BT06T	3	150	
1"	1342BT08T	7.5	150	M
1 1/2"	1342BT12T	7.5	150	
2"	1342BT16T	7.5	150	
2 1/2"	1342BT20T	7.5	150	
3"	1342BT24T	7.5	150	

## Slow closing anti-water hammer valves

Slows down disc closing speed to protect system against Water Hammer Effects.

Pilot Operated, Normally Open and Normally Closed, Brass or Stainless Steel Body,  
Connections from 3/4" to 2". Wide Range of Pressure. Buna N.

Connection Size	Normally Closed			Coil Size
	Model # (Brass / Buna N)	Pressure (psi)		Size
		Min.	Max.	
3/4"	1342BA06CLT	3	225	M
1"	1342BA08CLT			
1 1/2"	1342BA12CLT			
2"	1342BA16CLT			



## General Purpose Valves

2 Way Solenoid Valves for Water, air, steam, gasoline, gasoil, other gases and light oils up to 356°F.  
Bodies in brass, bronze, stainless steel. Flanged or threaded connections. Normally Closed or Normally Open.



1390



1314

## Fuel, Diesel oil, Gas oil, Biodiesel, up to 176 °F

Direct Acting and Pilot Operated, Normally Closed and Normally Open, Brass or Stainless Steel Body,  
Connections from 1/8" to 3", Wide Range of Pressure, FKM or PTFE seals

Connection Size	Direct Acting			Coil size
	Model # (Brass / FKM)	Pressure (psi)		
		Min.	Max.	
1/8"	2026BV121T	0	536	G
1/4"	2026BV222T	0	108	
1/4"	1327BV302T	0	150	
3/8"	1335BV3AT	0	105	M
1/2"	1335BV4AT	0	105	
3/4"	1335BV6AT	0	105	
1"	1314BV08AT	0	105	S
1 1/2"	1314BV12AT	0	105	
2"	1314BV16AT	0	105	
2 1/2"	1314BV20AT	0	45	
3"	1314BV24AT	0	45	

Connection Size	Pilot Operated			Coil size
	Model # (Brass / Viton)	Pressure (psi)		
		Min.	Max.	
1/4"	1390BV2T	1.5	225	M
3/8"	2036BV03T	3	218	G
1/2"	2036BV04T	3	218	
3/4"	2036BV06T	3	218	
1"	2036BV08T	4.5	218	
1 1/2"	1342BV12T	7.5	225	M
2"	1342BV16T	7.5	225	
2 1/2"	1342BV20T	7.5	225	
3"	1342BV24T	7.5	225	



## General Purpose Strainer

100 Microns Stainless Steel Mesh Strainer for Water, air, steam, gasoline, gasoil, other gases and light oils up to 356°F.  
Body: Gray casting, threaded connections.



1359

Connection Size	Model # (Bronze / Buna N)	Pressure (psi)
		Maximum
1/2"	1359FS4T	150
3/4"	1359FS6T	150
1"	1359FS8T	150
1 1/2"	1359FS12T	150
2"	1359FS16T	150



## Optional Features

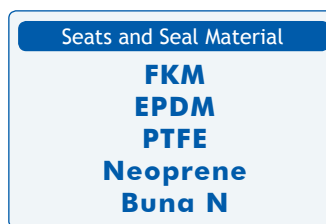
The following are the most common optional features available for Jefferson's General Purpose Solenoid Valves.



Stainless Steel Body



Flanged Connections



Seats and Seal Material

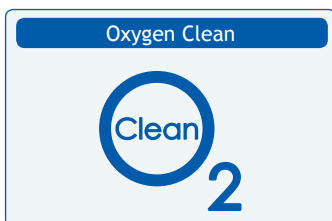
**FKM**  
**EPDM**  
**PTFE**  
**Neoprene**  
**Buna N**



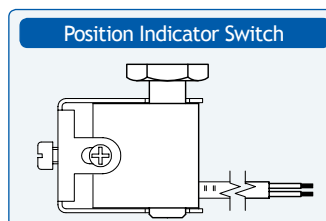
Manual Reset



Manual Operator



Oxygen Clean



Position Indicator Switch



Pneumatic operator



# Valves for Combustion Services

2 way Solenoid Valves for combustible media, such as natural gas, LPG, oil and others. For the use of industrial gas for combustion systems. Normally Closed Valves are known as Shutoff Valves and Normally Open as Vent Valves.



1330

## Shutoff Valves - Normally Closed for combustible gases up to 176 °F

2 Way solenoid valves to shut off the flow of combustible gases when not energized. Normally Closed, Brass or Aluminum Body, Connections from 1/8" to 3", Wide Range of Pressure, Buna N seals.

Connection Size	High Pressure			Coil size
	Model #	Pressure (psi)		
		Min.	Max.	
1/8"	2026BA171T	0	217	G
1/4"	2026BA172T	0	217	
1/4"	1327BA222T	0	300	
3/8"	1335BA3AT	0	105	M
1/2"	1335BA4AT	0	105	
3/4"	1335BA6AT	0	105	
1"	1330LAR08T	0.01	30	
1 1/2"	2030LAR12T	0.01	30	
2"	2030LAR16T	0.01	30	B
2 1/2"	1388LA20ART	0	75	
3"	1388LA24ART	0	75	

Connection Size	Low Pressure			Coil size
	Model #	Pressure (psi)		
		Min.	Max.	
1/8"	2026BA301T	0	43	G
1/4"	2026BA302T	0	43	
1/4"	1327BA522T	0	33	
1/2"	1330LA04T	0	3	
3/4"	1330LA06T	0	3	M
1"	2030LA08T	0	0.75	
1 1/4"	2030LA10T	0	0.75	
1 1/2"	2030LA12T	0.001	3	
2"	2030LA16T	0.001	3	



2030



1388

## Gas Vent Valves - Normally Open for combustible gases up to 176 °F

2 Way solenoid valves to vent combustible gases when not energized. Normally Open, Aluminum Body, Connections from 1/2" to 3/4", Buna N seals.

Connection Size	Model # (Aluminum / Buna N)	Pressure (psi)		Coil size
		Min.	Max.	
1/2"	1330LA01NAT	0	15	M
1/2"	1330LA04INAT	0	3	
3/4"	1330LA06INAT	0	3	



1356

## Heavy Oil Solenoid Valves

Specially used in combustion systems with heavy hydrocarbons such as fuel oil, heated or not. Direct Acting, Normally Closed or Normally Open, Brass, Bronze or Stainless Steel Body, Connections 3/8" to 1", Stainless Steel and PTFE seats

Connection Size	Normally Closed			Coil size
	Model #	Pressure (psi)		
		Min.	Max.	
3/8"	1356BT3T	0	300	M
1/2"	1356BT4T	0	300	S
1/2"	2012BS504T	0	300	
3/4"	2012BS806T	0	180	
1"	1312BSB08T	0	90	

Connection Size	Normally Open			Coil size
	Model #	Pressure (psi)		
		Min.	Max.	
1/2"	2012BS404NAT	0	225	S
3/4"	2012BS506NAT	0	180	
1"	2012BS508NAT	0	180	



1312



## Valves for Combustible Gases

2 way Solenoid Valves for combustible media, such as natural gas, LPG, oil and others.  
For the use of industrial gas for combustion systems.



### Manual Reset “Free Handle” Shutoff Valve

Valve trips closed when the coil is de-energized.

Free handle mechanism prevents opening the valve until solenoid is energized.

Direct Acting, Normally Closed, Aluminum Body, Connections from 1” to 3”, Buna N seals



1332

Connection Size	Model # (Aluminum / Buna N)	Pressure (psi)		Coil size
		Min.	Max.	
1"	1332LA08T	0	45	M
1 1/4"	1332LA10T	0		
1 1/2"	1332LA12T	0	30	

Connection Size	Model # (Aluminum / Buna N)	Pressure (psi)		Coil size
		Min.	Max.	
2"	1332LA16T	0	30	M
2 1/2"	1332LA20T	0		
3"	1332LA24T	0	15	



## CNG Shutoff Valve

Solenoid Valves for Vehicular Natural Gas / Compressed Natural Gas, Dispensers and Compressors.



2094

2094 series valves have been designed to handle high pressure fluids such as gaseous fuels and offer the customer the ultimate in performance, resistance and efficiency under hard working conditions. In addition, the piston system allows perfect opening and shutoff suited for high pressure systems.

Connection Size	CNG Dispensers			Coil Size
	Model #	Pressure (psi)		Size
		Min.	Max.	
1/4"	Z2094RBD2T	15	3700	M
3/8"	Z2094RBD3T	15	3700	
1/2"	Z2094RBD4T	15	3700	

Type Z: ATEX - Directive 94/9 C E II2G / Ex d IIB T3 Gb II2D / Ex tb IIIC T3 Db

Connection Size	Number of ports		CNG Dispensers			Coil Size
	Inlet	Outlet	Model #	Pressure (psi)		Size
				Min.	Max.	
SAE6	1	1	ZC2094LP3R	15	5000	M
SAE6	2	1	ZC2094LP3-21	15	5000	
SAE6	3	1	ZC2094LP3-31	15	5000	

Type ZC: NEMA Type 3, 3S, 4X, 6, 7, 9. CI. I Div.1 Gr. A, B, C & D. CI. II Div.1 Gr. E, F & G.



2094 5000 psi



2094 Manifold

1397 series solenoid valves are specially designed to be used in natural gas compressors for CNG stations. They have a strong structure, piston internal pilot operated, offering a quick response in opening and shutoff.

The design allows to obtain an excellent flow factor and the minimum pressure differential is below conventional valves.

Connection Size	CNG Compressors			Coil Size
	Model #	Pressure (psi)		Size
		Min.	Max.	
2"	Z1397FDA16B	7	362	M
3"	Z1397BA24B	7	145	

Type Z: ATEX - Directive 94/9 C E II2G / Ex d IIB T3 Gb II2D / Ex tb IIIC T3 Db

Type ZC: NEMA Type 3, 3S, 4X, 6, 7, 9. CI. I Div.1 Gr. A, B, C & D. CI. II Div.1 Gr. E, F & G.



Z1397







## 3 and 4 Way Valves

For water, air, gases and light oils. To operate single and double-acting cylinders.  
Other uses: to divert or converge two fluids.



1323



1351



1365



1325

## 3 Way / 2 Position Solenoid Valves

To alternately apply pressure to and exhaust pressure from a valve actuator or a single-acting cylinder.

Normally Closed, Normally Open, Universal. Aluminum, Brass or Stainless Steel Body, Buna N or FKM Seals, Pressure Differential from 0 to 300psi, Connection size from 1/4" to 3/4".

Connection Size	Orifice Size (mm)	Directional for Spring return actuators			Coil Size
		Model # (Brass / Buna N)	Pressure (psi)		Size
			Min.	Max.	
1/4"	1.75	1323BA17CT	0	180	M
1/4"	1.75	1365BA17CT	0	225	
1/4"	2	1323BA20CT	0	120	
1/4"	3	1365BA30CT	0	90	
1/4"	7	1351BA1AT	15	150	
3/8"	7	1351BA2AT	15	150	
3/8"	16	1325BA3CT	7.5	150	
1/2"	10	1351BA3AT	15	150	
1/2"	16	1325BA4CT	7.5	150	
3/4"	16	1325BA6CT	7.5	150	



1350

## 4 Way / 2 Position Solenoid Valves

To alternately apply pressure to and exhaust pressure from a valve double acting actuator.

4 Way 5 Port 2 Position Valve. Single Solenoid Spring Return, Pneumatic Return, Double Solenoid Bistable.

Aluminum, Brass or Stainless Steel Body, Buna N or FKM Seals.

Standard or Teflon Coated Internals for dried air.

Pressure Differential from 15 to 150psi, Connection size 1/4" to 1/2".

Connection Size	Orifice Size (mm)	Directional for double acting actuators			Coil size
		Model # (Brass) (Buna N)	Pressure (psi)		Size
			Min.	Max	
1/4"	7	1350BA1AT	15	150	M
3/8"	7	1350BA2AT	15	150	
1/2"	10	1350BA3AT	15	150	



1387



1375

## Valve Automation

Direct Mount NAMUR valves for single or double acting actuators.

3/2 or 4/2 configuration that mounts directly to the actuator.

Brass Body, Buna N Seals. The direct mount eliminates the need for piping the valve to the actuator.

3/2 for Single acting actuators				4/2 for Double acting actuators			
Orifice Size (mm)	Model # (Brass / Buna N)	Pressure (psi)		Orifice Size (mm)	Model # (Brass / Buna N)	Pressure (psi)	
		Min.	Max.			Min.	Max.
1.75	1387BA1NT	0	150	5.50	1375BA2NT	7.5	150
5.50	1387BA2NT	7.5	150				

Coil size: M.



2095



2095

Orifice Size Size (mm)	3/2 way		
	Model # (Brass / Buna N)	Pressure (psi)	
		Min.	Max.
3	2095BA2N3T	12	120

Orifice Size Size (mm)	4/2 way		
	Model # (Brass / Buna N)	Pressure (psi)	
		Min.	Max.
3	2095BA2N5T	12	120

With mounting base with threaded side connections 1/4 "NPT.

3	2095BA2N3-BT	12	120	3	2095BA2N5-BT	12	120
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Coil size: G.



# Cryogenic Use Solenoid Valves

Specially designed to control cryogenic fluids such as liquid Nitrogen, liquid Oxygen and liquid CO2.



1314 UC



1327 UC



1390 UC

Connection Size	Normally Closed			Coil size
	Cryogenic Service -328° F	Press. (psi)		
		Min.	Max.	
1/8"	1327BT121UCT	0	1500	M
1/8"	1327BT171UCT	0	525	
1/8"	1327BT221UCT	0	300	
1/4"	1327BT302UCT	0	150	
1/4"	1390BBT2UCT	1.5	225	
3/8"	1390BBT3UCT	1.5	225	
1/2"	1390BBT4UCT	1.5	225	
3/4"	1314BST06UCT	0	105	
1"	1314BST08UCT	0	105	S
1 1/2"	1314BST12UCT	0	105	
2"	1314BST16UCT	0	105	



## Coils and Housings Options

Coils and housings, used in solenoid valves.

### Coils size "G"



Coil with Connector

ENCAPSULATED COILS  
DIN 43650 IP65  
Connection:  
Plug-in with PG9



Coil with Connector

ENCAPSULATED COILS  
DIN 43650 IP65  
Connection:  
Plug-in with 1/2" NPT conduit.



Explosion proof

"ZC" ENCAPSULATED COIL

CA: ATEX II 2GD Ex mbl T5  
CC: ATEX II 2GD Ex mbl T4  
IP65.

### Coils size "M"



Coil with Connector

ENCAPSULATED COILS  
DIN 43650  
Connection:  
Plug-in with PG9 strain-relief  
or 1/2" NPT conduit.  
IP65.



Weather Proof 4X

"YC" ENCAPSULATED COILS  
Connection:  
1/2" NPT metal conduit.  
Weather, water and  
corrosion proof.  
NEMA 4X.  
18" flying lead wires.



Explosion proof

"ZC" ENCAPSULATED COIL

NEMA Type 3, 3S, 4X, 6, 7, 9.  
Cl. I Div.1 Gr. A, B, C & D.  
Cl. II Div.1 Gr. E, F & G.

18" flying lead wires.

### Housing size "S"



Standard

CAST IRON HOUSING  
Connection: 3/4" NF.  
NEMA 1.



Weather Proof

"Y" CAST IRON HOUSING  
Epoxy paint.  
Connection: 3/4" NPT.  
NEMA 4X and IP65.



Explosion proof

"Z" CAST IRON HOUSING

Epoxy paint.  
Connection: 3/4" NPT.  
NEMA 4X and IP65.  
NEMA 7 and 9.  
Class 1, division 1,  
groups C and D

Distributor:

