

## Features

- 2-way normally closed operation
- Unique double disc design with overtravel provides redundant sealing for leak tight shutoff
- Die-cast aluminum bodies
- Zero differential piloted diaphragm
- For on-off control of fuel gas in commercial and industrial gas burners
- Valves provided with 1/8" NPT upstream and downstream pipe taps with plugs for routine testing

## Construction

Valve Parts in Contact with Fluids	
Body	Aluminum
Seals and Disc	NBR
Core Tube	305 Stainless Steel
Core Guide	Acetal (20 watt only)
Rider Ring	PTFE (20 watt only)
Core and Plugnut	430F Stainless Steel
Springs	302 Stainless Steel
Shading Coil	Copper
Pipe Plug	Zinc-Plated Steel

## Electrical

Standard Coil and Class of Insulation	Watt Rating and Power Consumption				*Ambient Temp. °F	Spare Coil Family			
	DC Watts	AC				General Purpose	Explosionproof		
		Watts	VA Holding	VA Inrush			AC	DC	AC
F	-	20	43	240	-40 to 125	099257	-	-	-
F	-	28.2	50	385	-40 to 125	206409	-	-	-
B	14.9	-	-	-	-40 to 77	-	062691	-	-

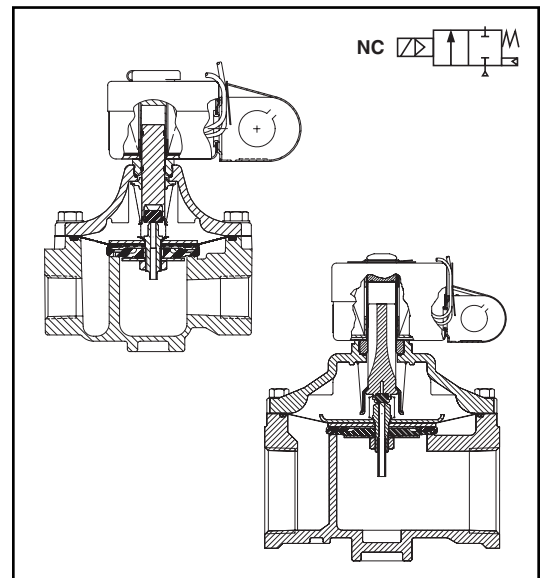
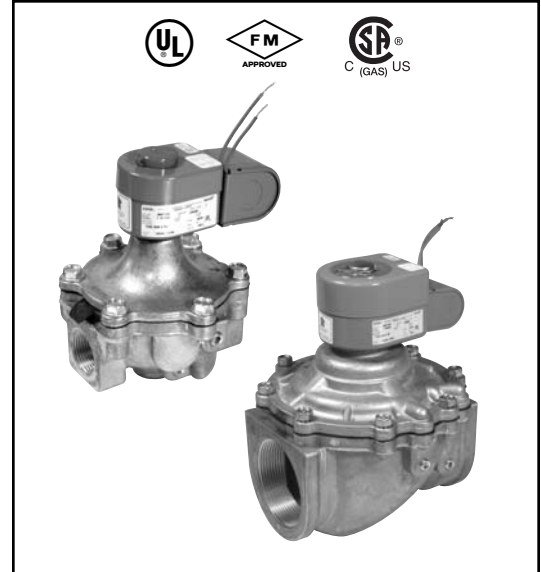
**Standard Voltages:** 24, 120, 240 volts AC, 60 Hz (or 110, 220 volts AC, 50 Hz)  
 12, 24 volts DC. (Note: 24 volt AC, 60 Hz not available with 28.2 watt coil)

## Solenoid Enclosures

RedHat metal Type 1 General Purpose Junction Box housing with two 7/8" knock-outs for 1/2" conduit connection.

## Valve Response Time

**Opening Time:** Less than 1 second; **Closing Time:** Less than 1 second



## Approvals

UL listed to standard 429 "Electrically Operated Valves," Guide Y10Z, File MP618 Safety Shutoff Valves.

FM Approved "Process Control Valves."

CSA Certified to:

- 1) Standard C22.2 No. 139 "Electrically Operated Valves," File 010381.
- 2) Automatic Gas Valves Z21.21 (6.5), File 112872.
- 3) Automatic Gas Safety Shutoff Valves C/I (3.9), File 112872.

COMBUSTION

**Specifications (English units)**

Pipe Size (ins.)	Orifice Size (ins.)	Cv Flow Factor	Gas Capacity ① Btu/hr.	Operating Pressure Differential (psi)		Max. Fluid Temp. °F		Catalog Number	Const. Ref.	Agency			Wattage		Approx. Shipping Weight (lbs)
				Min.	Max.	AC	DC			UL	FM	CSA	AC	DC	
<b>COMBUSTION (Fuel Gas) - NORMALLY CLOSED</b>															
3/4	1 5/8	11	580,000	0	5	125	77	8214 035	1	○	②	○	20	14.9	4.3
1	1 5/8	21	1,119,000	0	5	125	77	8214 050	1	○	②	○	20	14.9	4.3
1 1/4	1 5/8	32	1,730,000	0	5	125	77	8214 060	2	○	②	○	20	14.9	4.3
1 1/2	1 5/8	35	1,900,000	0	5	125	77	8214 070	2	○	②	○	20	14.9	4.3
2	2 3/32	60	2,800,000	0	5	125	77	8214 080	3	○	②	○	20	14.9	6.3
2 1/2	3	104	5,765,500	0	5	125	-	8214 090 ③	4	○	②	○	28.2	-	13.0
3	3	105	5,796,000	0	5	125	-	8214 040 ③	4	○	②	○	28.2	-	14.0

○ = Safety Shutoff Valve. ① 1" W.C. Drop @ 2" W.C. Inlet Pressure, 1,000 Btu/cu.ft. or more, 0.64 Specific Gravity Gas. ② FM approved "Process Control Valves".  
③ Not available with 24 volt, 60 Hz coil.

**Specifications (Metric units)**

Pipe Size (ins.)	Orifice Size (mm)	Kv Flow (m²/hr)	Gas Capacity ① Btu/hr.	Operating Pressure Differential (bar)		Max. Fluid Temp. °C		Catalog Number	Const. Ref.	Agency			Wattage		Approx. Shipping Weight (kgs)
				Min.	Max.	AC	DC			UL	FM	CSA	AC	DC	
<b>COMBUSTION (Fuel Gas) - NORMALLY CLOSED</b>															
3/4	41	9.4	580,000	0	0.3	52	25	8214 035	1	○	②	○	20	14.9	2.0
1	41	17.9	1,119,000	0	0.3	52	25	8214 050	1	○	②	○	20	14.9	2.0
1 1/4	41	27.2	1,730,000	0	0.3	52	25	8214 060	2	○	②	○	20	14.9	2.0
1 1/2	41	29.8	1,900,000	0	0.3	52	25	8214 070	2	○	②	○	20	14.9	2.0
2	53	51.0	2,800,000	0	0.3	52	25	8214 080	3	○	②	○	20	14.9	2.9
2 1/2	76	88.4	5,765,500	0	0.3	52	-	8214 090 ③	4	○	②	○	28.2	-	5.9
3	76	89.3	5,796,000	0	0.3	52	-	8214 040 ③	4	○	②	○	28.2	-	6.4

○ = Safety Shutoff Valve. ① 1" W.C. Drop @ 2" W.C. Inlet Pressure, 1,000 Btu/cu.ft. or more, 0.64 Specific Gravity Gas. ② FM approved "Process Control Valves".  
③ Not available with 24 volt, 60 Hz coil.

**Capabilities Chart**

Solenoid Options		Base Catalog Number		Resilient Materials		Standard Rebuild Kit	
High Temp.	Junction Box	Aluminum		NBR		AC	DC
HB	JB	8214 035		●		316429	316777
HB	JB	8214 050		●		316429	316777
HB	JB	8214 060		●		316429	316777
HB	JB	8214 070		●		316429	316777
HB	JB	8214 080		●		316430	316778
HT	JB	8214 090		●		316828	-
HT	JB	8214 040		●		316828	-

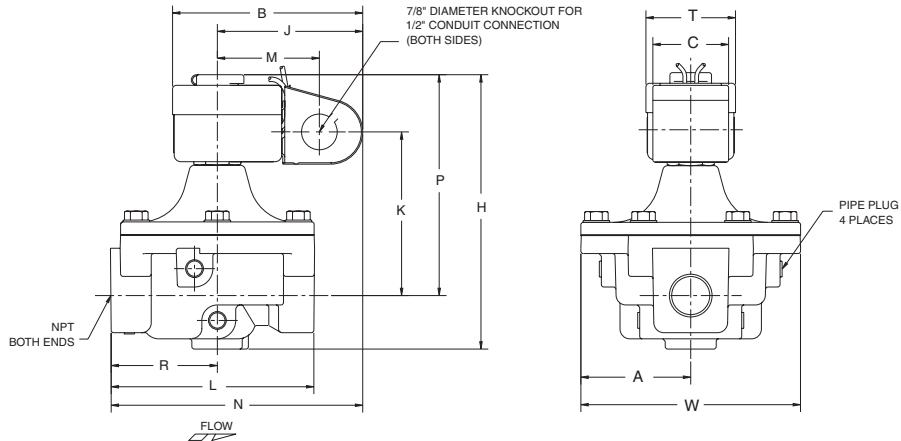
● = Standard. Other options may be available. All option combinations may not be available. Solenoid options are for AC only.

**COMBUSTION**

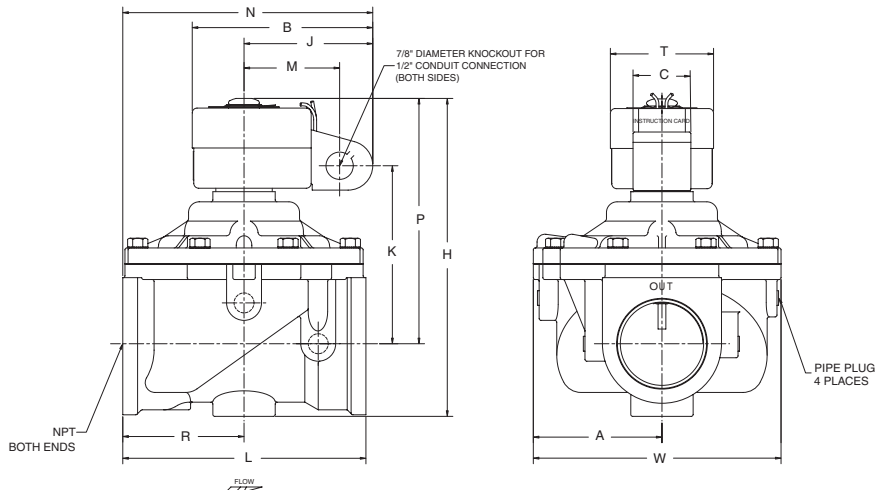
## Dimensions inches (mm) Shown with Optional Junction Box

Const. Ref.		A	B	C	H	J	K	L	M	N	P	R	T	W
1	ins.	2.69	4.59	1.88	6.78	3.53	4.06	5.00	2.50	6.15	5.46	2.62	2.20	5.39
	mm	68	117	48	1620	90	103	127	64	156	139	67	56	137
2	ins.	2.69	4.59	1.88	6.78	3.53	4.13	5.00	2.50	6.15	5.53	2.62	2.20	5.39
	mm	68	117	48	172	90	105	127	64	156	140	67	56	137
3	ins.	3.16	4.59	1.88	7.39	3.53	4.49	6.09	2.50	6.81	5.89	3.28	2.20	6.32
	mm	80	117	48	188	90	114	155	64	173	150	83	56	161
4	ins.	4.13	5.72	1.88	10.20	4.07	5.71	7.80	3.07	7.96	7.87	3.89	3.31	7.95
	mm	105	145	48	259	103	145	198	78	202	200	99	84	202

Const. Ref. 1, 2, 3



Const. Ref. 4



Must be mounted with solenoid vertical and upright.

