

# BRONZE SOLENOID VALVES

Dependable • Packless



## TYPE "LR" FULL PORT - NORMALLY OPEN 1/2" TO 3" PIPE SIZE

*NO DIFFERENTIAL PRESSURE REQUIRED TO OPEN*

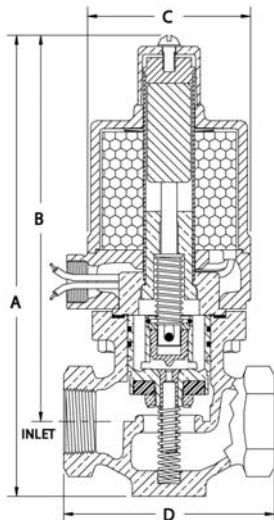
### OPERATION:

Valve closes when energized and opens when de-energized. When the coil is energized the plunger presses the poppet, closing the pilot orifice, and opens a bleed passageway to permit pressure to build above the piston and seal it. Upon de-energizing the coil, the pilot orifice is opened, relieving the pressure above the piston allowing it to leave its seat. The bottom spring allows the valve to operate at zero pressure drop.

MAX. FLUID TEMP.  
**400° F**

MAX. STATIC PRESSURE  
**300 PSI**

Except valves listed for 500 PSI



### CONSTRUCTION: (\* Wetted parts)

- \*Valve Body - Cast Bronze, Globe Pattern - NPT ends
- \*Piston - Bronze
- Coil Enclosure - Malleable or Cast Iron, 1/2" NPT conduit conn.
- \*Plunger - 430 Stainless Steel
- \*Poppet - 303 Stainless Steel
- \*Stem - 303 Stainless Steel
- \*Bonnet Tube - 304 Stainless Steel
- \*Springs - Inconel and 302 Stainless Steel
- \*Body Seal - Non Asbestos Gasket
- \*Orifice Seal - Glass Filled Teflon
- \*AC Shading Coil - Copper
- \*Stem Pin - 304 Stainless Steel
- Coil - Encapsulated Class H, 18" leads

**FOR OPTIONS &  
ACCESSORIES  
SEE PAGES 24 & 25**

**FOR  
STEAM APPLICATIONS  
SEE BULLETIN 3006-SR  
Page 13**



### APPLICATION:

To control the flow of Hot Liquids, Hot Gases, Cryogenics\*\* and any other fluids not reactive with construction materials and free of sediment. Cryogenic fluids include Liquid Oxygen (-297°F), Liquid Argon (-303°F) and Liquid Nitrogen (-320°F). Valve operates from zero to maximum differential pressure indicated in table. Valve must be mounted in horizontal pipe with solenoid enclosure vertical and on top.

### \*\* CLEANING

- Cryogenic valves are degreased & cleaned to keep them free of moisture.
- Oxygen valves are also "black light" tested.

Strainers are recommended for use with solenoid valves

(See page 19)

**When you order please supply the following:**

- Pipe Size
- Valve Type
- Voltage (AC or DC)
- Hertz
- Fluid
- Fluid Temperature
- Max. Diff. Pressure
- Optional Features

(See pages 24 & 25)

Pipe Size Inches	Max. Diff. PSI	Type No.	Watts AC	Amps Hold 120-60	Amps Inrush 120-60	Watts DC	Ship Wt. Lbs.	Dimensions In Inches			
								A	B	C	D
1/2	110	14LR42	25	0.5	1.5	18	8	8-1/8	7	2-7/8	3-1/4
	200	14LR32	45	1.0	2.7	23	11	9-1/8	8	3-1/2	3-1/4
	300	29LR52	45	1.0	2.7	23	16	9-1/8	8	4	3-1/4
3/4	50	14LR23	25	0.5	1.6	18	9	8-1/4	7-1/8	2-7/8	3-1/2
	110	14LR43	45	1.0	2.9	23	13	9-1/4	8-1/8	3-1/2	3-1/2
	200	29LR33	65	1.5	4.3	33					
	300	129LR53	65	1.5	4.3	33	18	9-1/4	8-1/8	4	3-1/2
	500	E129LR63	65	1.5	4.3	33	18	9-1/4	8-1/8	4	3-1/2
1	50	16LR24	25	0.5	1.8	18	11	9-1/8	7-3/4	3-1/4	4-1/8
	110	16LR44	45	1.0	3.0	23	15	10	8-5/8	3-1/2	4-1/8
	200	31LR34	65	1.5	4.5	33					
	300	131LR54	65	1.5	4.5	33	20	10	8-5/8	4	4-1/8
1-1/4	50	17LR25	25	0.5	1.9	18	13	9-3/4	8-1/8	3-1/2	4-1/2
	90	17LR45	45	1.0	3.2	23	17	10-3/4	9-1/8	3-5/8	4-1/2
	200	32LR35	65	1.5	4.8	33					
	300	132LR55	85	3.5	9.0	N/A	20	11	9-3/8	4-1/2	4-1/2
1-1/2	50	35LR26	45	1.0	3.8	23	21	11-3/8	9-3/8	4	4-7/8
	115	35LR46	60	1.7	6.5	35	25	11-5/8	9-3/4	4-1/2	4-7/8
	200	41LR36	85	3.5	9.7	45					
	300	141LR56	45	1.0	4.2	23	31	12-3/8	10-1/8	5-3/8	6
	500	141LR66	60	1.7	7.3	35					
2	50	36LR27	45	1.0	4.2	23	36	12-5/8	10-3/8	5-3/8	6
	100	36LR47	60	1.7	7.3	35					
	200	42LR37	85	3.5	11.0	45					
	300	42LR57	60	1.7	8.0	35	45	13-1/2	10-3/4	5-7/8	7-1/4
500	142LR67	85	3.5	12.0	45						
2-1/2	50	43LR28	60	1.7	8.0	35	57	14-3/8	11-1/8	6-5/8	8-3/8
	125	43LR48	60	1.7	8.8	35					
	200	43LR38	60	1.7	8.8	35					
	300	143LR58	85	3.5	13.0	45					
3	50	44LR29	60	1.7	8.8	35	57	14-3/8	11-1/8	6-5/8	8-3/8
	100	44LR49	60	1.7	8.8	35					
	200	44LR39	85	3.5	13.0	45					
	300	144LR59	85	3.5	13.0	45					

†† Not available for DC operation

## MAGNATROL VALVE CORPORATION