

STAINLESS STEEL SOLENOID VALVES

Dependable • Packless

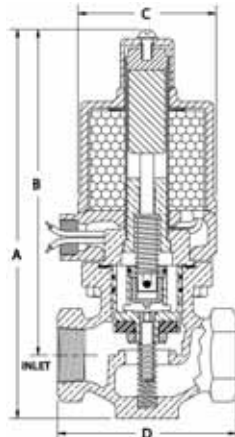


TYPE "KR" FULL PORT - NORMALLY OPEN 1/2" TO 2" PIPE SIZE

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 seat 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.



CONSTRUCTION:

(*Wetted parts - No Copper Bearing Alloys in contact with fluid)

*Valve Body - 304 Stainless Steel Globe Pattern - NPT ends

(For Flanged Ends see Options page 24)

*Piston - 303 Stainless Steel

Coil Enclosure - Malleable or Cast Iron, 1/2 " NPS conduit conn.

*Plunger - 430 Stainless Steel

*Poppet - 303 Stainless Steel

*Stem - 303 Stainless Steel

*Bonnet Tube - 304 Stainless Steel

*Spring - Inconel

*Body Seal - Non Asbestos Gasket

*Orifice Seal - Glass Filled Teflon

*AC Shading Coil - Silver

*Stem Pin - 304 Stainless Steel

Coil - Encapsulated Class H, 18" leads

**FOR
STEAM APPLICATIONS
SEE BULLETIN 3006-WR
Page 23**



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

APPLICATION:

To control the flow of Corrosive Fluids, Deionized Water, Condensate, Ammonias, Vegetable Oils, Fuel Oils, Cryogenics**, Flammable Liquids. 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	14KR42	25	0.5	1.5	18	7	8-1/8	7	2-7/8	3-1/4
	200	14KR32									
	300	29KR52	45	1.0	2.7	23	10	9-1/8	8	3-1/2	
	500	E29KR62					15			4	
3/4	110	14KR43	25	0.5	1.6	18	8	8-1/4	7-1/8	2-7/8	3-1/2
	200	29KR33	45	1.0	2.9	23					
	300	129KR53	65	1.5	4.3	33	12	9-1/4	8-1/8	3-1/2	
	500	E129KR63					17			4	
1	110	16KR44	25	0.5	1.8	18	10	9-1/8	7-3/4	3-1/4	4-1/8
	200	31KR34	45	1.0	3.0	23					
	300	131KR54	65	1.5	4.5	33	14	10	8-5/8	3-1/2	
	500	E131KR64					20			4	
1-1/2	115	35KR46	45	1.0	3.8	23	18	11-3/8	9-1/2	4	4-7/8
	200	41KR36	60	1.7	6.5	35					
	300	141KR56	85	3.5	9.7	45	22	11-5/8	9-3/4	4-1/2	
	500	141KR66									
2	100	36KR47	45	1.0	4.2	23	27	12-3/8	10-1/8		6
	200	42KR37									
	300	42KR57	60	1.7	7.3	35					
	500	142KR67	85	3.5	11.0	45	32	12-5/8	10-3/8	5-3/8	

Dimension In Inches		
Pipe Size	150# Flanged	300# Flanged
1	6-1/2	7-1/2
1-1/2	6-1/2	7-1/2
2	8	9

Face To Face Dimensions for Flanged Ends

(For complete dimensions, weights and other sizes see Engineering Catalog 3006-ENG)

MAGNATROL VALVE CORPORATION

Magnatrol Valve Corporation • P.O. Box 17 • 67 Fifth Avenue • Hawthorne • New Jersey • 07507
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STAINLESS STEEL SOLENOID VALVES

Dependable • Packless

TYPE "W" FULL PORT - NORMALLY CLOSED 1/2" TO 2" PIPE SIZE

NO DIFFERENTIAL PRESSURE REQUIRED TO OPEN

MAX. FLUID TEMP.
400° F
MAX. STATIC PRESSURE
200 PSI

OPERATION:

Valve opens when energized and closes when de-energized. When the coil is energized the pilot valve opens, relieving the pressure above the piston, which is then lifted from its seat by the plunger. Upon de-energizing the coil, a spring closes the pilot valve and opens a bleed passageway to permit pressure to build above the piston and seat it.

CONSTRUCTION:

(*Wetted parts - No Copper Bearing Alloys in contact with fluid)

*Valve Body - 304 Stainless Steel Globe Pattern - NPT ends

(For Flanged Ends see Options page 24)

*Piston - 303 Stainless Steel

Coil Enclosure - Malleable or Cast Iron, 1/2" NPS conduit conn.

*Plunger - 430 Stainless Steel

*Pilot Valve - 303 Stainless Steel

*Bonnet Tube - 304 Stainless Steel

*Spring - Inconel

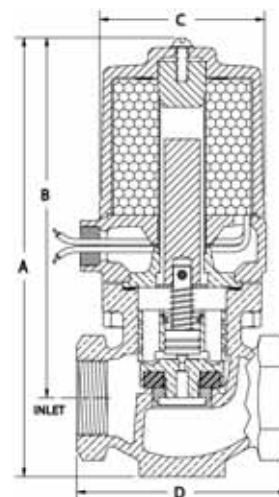
*Body Seal - Non Asbestos Gasket

*Orifice Seal - Glass Filled Teflon

*AC Shading Coil - Silver

*Stem Pin - Inconel

Coil - Encapsulated Class H, 18" leads



APPLICATION:

To control the flow of STEAM. Steam must be free of sediment. 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.

**FOR OPTIONS & ACCESSORIES
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	90	14W22	25	0.4	1.2	18	7	7	5-7/8	2-7/8	3-1/4
	140	114W42	40	0.6	1.8	28	7	7	5-7/8	2-7/8	
	180	129W42	65	1.2	3.6	33	10	8	6-7/8	3-1/2	
3/4	50	14W23	25	0.4	1.3	18	8	7-1/8	6	2-7/8	3-1/2
	110	114W43	40	0.6	2.0	28	8	7-1/8	6	2-7/8	
	180	129W43	65	1.2	3.9	33	11	8-1/8	7	3-1/2	
1	25	16W14	25	0.4	1.5	18	10	8	6-5/8	3-1/4	4-1/8
	50	116W24	40	0.6	2.3	28	10	8	6-5/8	3-1/4	
	90	116W44	40	0.6	2.3	28	10	8	6-5/8	3-1/4	
	180	131W44	65	1.2	4.2	33	13	8-7/8	7-1/2	3-1/2	
1-1/2	25	35W16	45	0.8	3.2	23	17	10	8-1/8	4	4-7/8
	50	35W26	45	0.8	3.2	23	17	10	8-1/8	4	
	90	135W46	65	1.2	4.8	33	21	11	9-1/8	4-1/2	
	180	141W46	85	2.0	10.0	45	21	11	9-1/8	4-1/2	
2	25	36W17	45	0.8	3.5	23	27	11	8-3/4	5-3/8	6
	50	36W27	45	0.8	3.5	23	27	11	8-3/4		
	115	42W47	60	1.2	7.4	35	32	12	9-3/4		
	180	142W47	85	2.0	11.0	45	32	12	9-3/4		

Face To Face Dimensions for Flanged Ends

(For complete dimensions, weights and other sizes see Engineering Catalog 3006-ENG)

Dimension In Inches		
Pipe Size	150# Flanged	300# Flanged
1	6-1/2	7-1/2
1-1/2	6-1/2	7-1/2
2	8	9

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)

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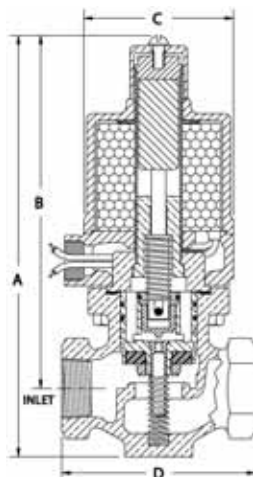
TYPE "WR" FULL PORT - NORMALLY OPEN

1/2" TO 2" 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 seat 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.



CONSTRUCTION:

(*Wetted parts - No Copper Bearing Alloys in contact with fluid)

*Valve Body - 304 Stainless Steel Globe Pattern - NPT ends

(For Flanged Ends see Options page 24)

*Piston - 303 Stainless Steel

Coil Enclosure - Malleable or Cast Iron, 1/2" NPS conduit conn.

*Plunger - 430 Stainless Steel

*Poppet - 303 Stainless Steel

*Stem - 303 Stainless Steel

*Bonnet Tube - 304 Stainless Steel

*Spring - Inconel

*Body Seal - Non Asbestos Gasket

*Orifice Seal - Glass Filled Teflon

*AC Shading Coil - Silver

*Stem Pin - 304 Stainless Steel

Coil - Encapsulated Class H, 18" leads

MAX. FLUID TEMP.

400° F

MAX. STATIC PRESSURE

200 PSI



APPLICATION:

To control the flow of STEAM. Steam must be free of sediment. 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.

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

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	90	14WR22	25	0.5	1.5	18	7	8-1/8	7	2-7/8	3-1/4
	140	114WR42	40	0.8	2.4	28					
	180	129WR42	65	1.5	4.2	33	10	9-1/8	8	3-1/2	
3/4	50	14WR23	25	0.5	1.6	18	8	8-1/4	7-1/8	2-7/8	3-1/2
	110	114WR43	40	0.8	2.6	28					
	180	129WR43	65	1.5	4.3	33	12	9-1/4	8-1/8	3-1/2	
1	25	16WR14	25	0.5	1.8	18	10	9-1/8	7-3/4	3-1/4	4-1/8
	50	116WR24 116WR44	40	0.8	2.9	28					
	180	131WR44	65	1.5	4.5	33					
1-1/2	25	35WR16	45	1.0	3.8	23	18	11-3/8	9-1/2	4	4-7/8
	50	35WR26									
	90	135WR46	65	1.5	5.7	33					
	180	141WR46	85	3.5	9.7	45	22	11-5/8	9-3/4	4-1/2	
2	25	36WR17	45	1.0	4.2	23	27	12-3/8	10-1/8	5-3/8	6
	50	36WR27									
	115	42WR47	60	1.7	7.3	35					
180	142WR47	85	3.5	11.0	45						

Dimension In Inches		
Pipe Size	150# Flanged	300# Flanged
1	6-1/2	7-1/2
1-1/2	6-1/2	7-1/2
2	8	9

Face To Face Dimensions for Flanged Ends

(For complete dimensions, weights and other sizes see Engineering Catalog 3006-ENG)

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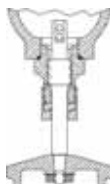
OPTIONAL FEATURES

For Dependable • Packless Solenoid Valves

See Individual Options For Availability For Use With Specific Valve Types

BOTTOM MOUNTED OPTIONS Note: Only One Bottom Mount Option Can Be Installed On Each Valve

MANUAL OVERRIDE



(Normally Closed valves only)
(Designated by Prefix "MO")
Enables manual opening of solenoid valve during power failure or to override automatic controls.

LEVER



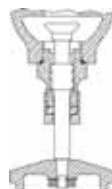
(Normally Closed valves only)
(Designated by Prefix "LV")
Enables rapid opening of solenoid valve. Can be chain operated for use at inaccessible locations.

DASHPOT



(Designated by Prefix "DP")
Furnished for clean liquids to reduce water hammer effect sometimes encountered in long pipe runs by slowing valve closing.

FLOW CONTROL



(Normally Closed, NR & MR valves, only)
(Designated by Prefix "FC")
Provides a manual method of reducing or throttling the flow.

MOUNTING STUD



(Designated by Prefix "MS")
3/8"-16 thread can be furnished in bottom of body to facilitate mounting on bracket. (Not available on 2", 2-1/2" and 3")

DRAIN



(Normally Closed, NR & MR valves, only)
(Designated by Prefix "DR") - 1/4" NPT plug supplied in bottom of valve to facilitate draining of liquid from valve body.

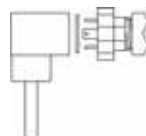
OTHER OPTIONS

PILOT TAP



(Designated by Prefix "PT")
Type D, G & GR Valves can be furnished with 1/8" tapped hole for pilot connection or pressure gauge.

DIN CONNECTOR



(Designated by Suffix "DN")
Provides 3 prong connector for easy power connect / disconnect.

"HUM FREE": (No AC Hum/Buzz)

(Designated by Suffix "HF") - The "HUM FREE" option eliminates the "AC hum" associated with AC operated solenoid valves. Enables valves to be used where an AC hum would not be acceptable and AC is the only power source available. IE: Hospitals, labs, schools (class rooms), homes, office environments etc. & when 24 vac is required for 40 series valves.

Leak / Dead Tight:

(Normally Closed valves only)
(designated by Prefix "LT") - The Leak / Dead Tight Option is used to satisfy a Class VI tight shutoff requirement. This option offers 'soft' resilient seating or 'gapless' seal. Consult Factory for Max. Diff. Pressure and Valve Type availability.

Flanged Ends for SS Valves:

(Designated by Suffix "F1" for 150 lb or "F3" for 300 lb Flanges) Available on stainless steel valves. (Flanged ends for bronze valves available through our Clark-Cooper Division, see bottom of page 3).

Explosion-Proof and Watertight Solenoids:

(Designated by Prefix "F") - are Explosion-proof and NEMA 4, 7C & D, 9E, F & G suitable for use in hazardous locations requiring Class I, Groups C & D & Class II Groups E, F, and G equipment.

NEMA 4X:

(Designated by Prefix "F" AND Suffix "ZP") - are suitable for use in locations requiring a NEMA 4X designation. "ZP" (Zinc Plating) replaces the standard paint used on the Coil housing (cup and base). The additional corrosion protection satisfies NEMA 4X requirements. Internal construction, pressure ratings, power consumption, and external dimensions are the same as for standard valves.

Nickel Plating:

(Designated by Suffix "NP") - Plating is 0.0005" Thick Meets Mil Spec. C26074

Universal Mount Valves For Mounting In Vertical Pipe Runs
(See Magnetrol Universal Mount Catalog 3006-UM)