

General Description

Series 961, 962, 963, and 965 valves serve as dump valves or shut-off valves depending upon the configuration ordered. These valves fit the need for fast remote opening and closing and can be found in fast remote unloading circuits.

Features

- Designed for fast remote unloading and closing.
- High pressure, high flow valves for hydraulic service.
- Pilot-operated for fast, smooth, non-shock operation.

Reference

Aluminum Alloy				
Valve Number	Normal Position	Maximum Working Pressure	Pilot Orifice	Piston Orifice
961-A3/8D2	Closed	1500 PSI	.040	.032
961-A3/4D2	Closed	1500 PSI		
962-A3/8D2	Closed	3000 PSI	.030	.024
962-A3/4D2	Closed	3000 PSI		
963-A3/8D2	Closed	5000 PSI	.024	.020
963-A3/4D2	Closed	5000 PSI		
965-A3/8D2	Open	3000 PSI	.028	.024
965-A3/4D2	Open	3000 PSI		
Steel				
961-A11½S2	Closed	1500 PSI	.040	.032
962-A11½S2	Closed	3000 PSI	.030	.024
963-A11½S2	Closed	5000 PSI	.024	.020
965-A11½S2	Open	3000 PSI	.028	.024

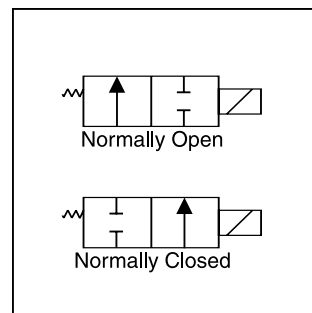
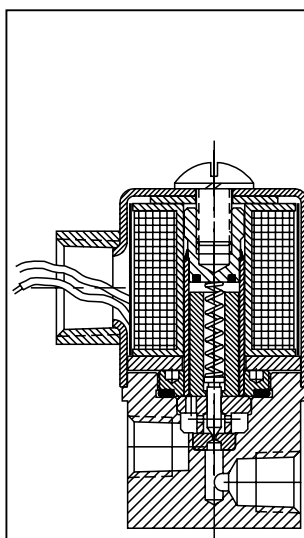
Valve Size	CV Factor	Flows GPM Rec. Max.	Operating Time at Max. Flow		Weight
			Opening	Closing	
3/8	1.9	7.5	25 Milliseconds	0.7 Sec.	1 Lbs. 8 Oz.
3/4	4.0	20.0		1.0 Sec.	3 Lbs.
1 1/2	25.0	90.0		2.0 Sec.	18 Lbs.

Valve Size	Valve Number	CV Factors	Orifice Size	Weight
1/4	961	.032	.040	1.2 Lbs.
	962	.022	.030	
	963	.014	.024	
	965	.013	.028	

Electrical Data

Service Code	Service	Power Consumption Watts Maximum	Current Drain	
			Inrush Amps.	Holding Amps.
A	115V 60Cy AC	16.5	.450	.300
E	*24V DC	6.0	—	.326

*Not available for 5000 PSI valves.
 HEAT RISE: 80° C. Continuous Service



Specifications

Service App.	Hydraulic oil
Maximum Operating Pressure	Working: Minimum - 1.7 Bar (25 PSI) Maximum - See availability list Proof: 1 1/2 times operating pressure
Sizes	NPT 1/4", 3/8", 3/4", 1 1/2"
Ports	NPT Pipe Threads
Internal Leakage	1 cc/min.
Mounting	Bolted - see drawing for dimensions Install with Solenoid Up
Material	Body: 1/4", 3/8", 3/4" - Aluminum alloy 1 1/2" - Steel Spring: Stainless steel, AMS5688 Piston: Steel Seat, Solenoid Valve: Brass Seat 1 1/2" Valve Piston: Stainless steel O-rings: Synthetic rubber Back-up Rings: PTFE
Coil Lead Length	24"
Operating Temperature	-40°C to +107°C (-40°F to +225°F) (with Code 02 O-rings)
Electric Service	See Electrical Data Table for other services

Note: Will not operate satisfactorily with reverse flow on exhaust port.

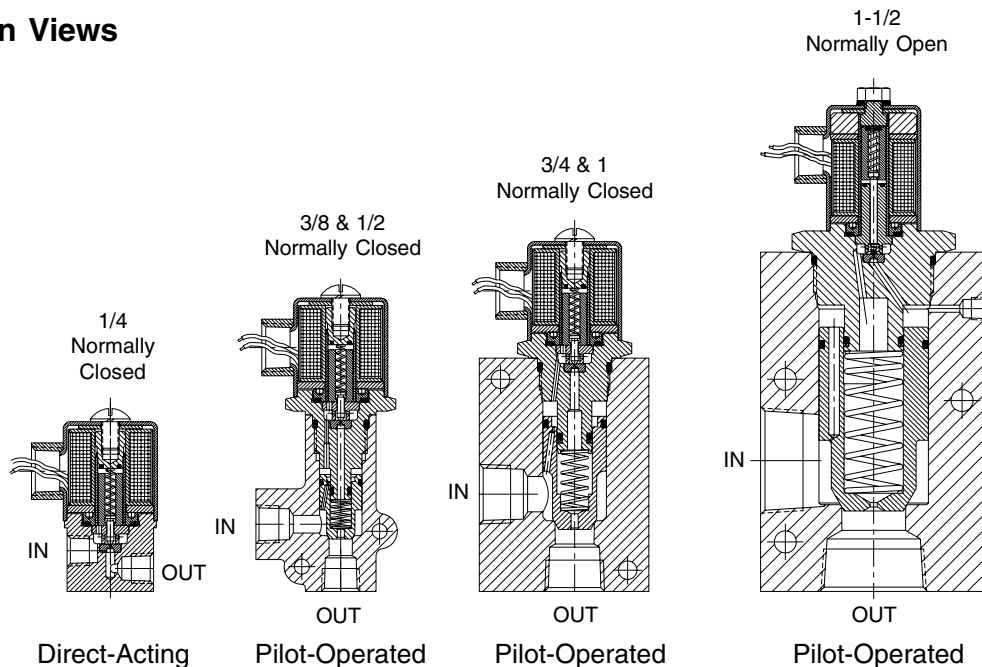
Ordering Information

961	-A	3/8	S	2
Catalog Number	Power Source	Size and Type Ports	Materials	O-Ring Code
961 1500 PSI Normally Closed	A 115V/60C A.C.	1/4 NPT	D Aluminum Alloy	2 Nitrile
962 3000 PSI Normally Closed	* E 24V/D.C.	3/8 NPT	S Steel (1-1/2 Only)	
965 3000 PSI Normally Open		3/4 NPT		
963 5000 PSI Normally Closed		1-1/2 NPT		

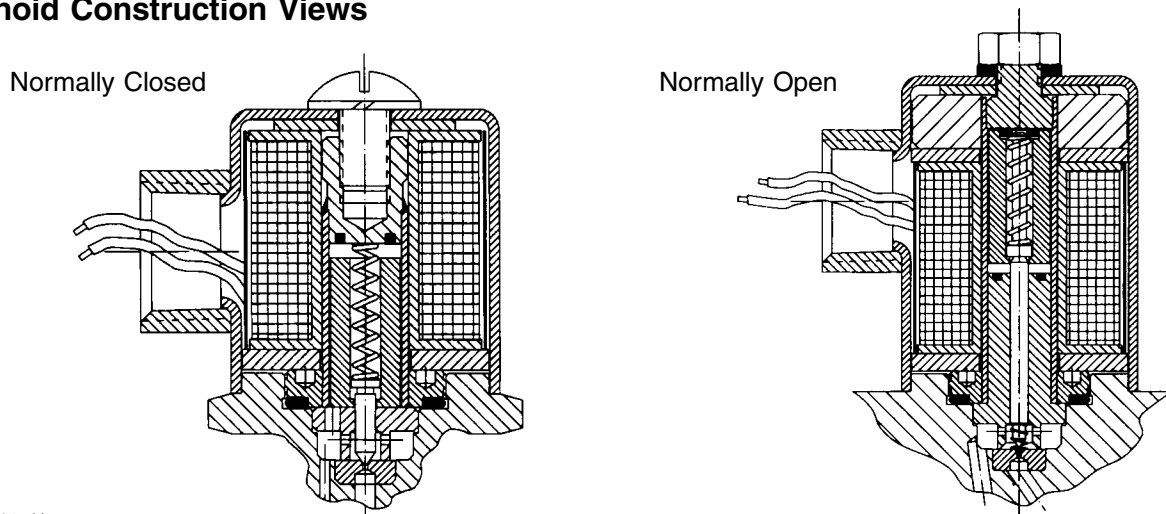
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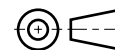
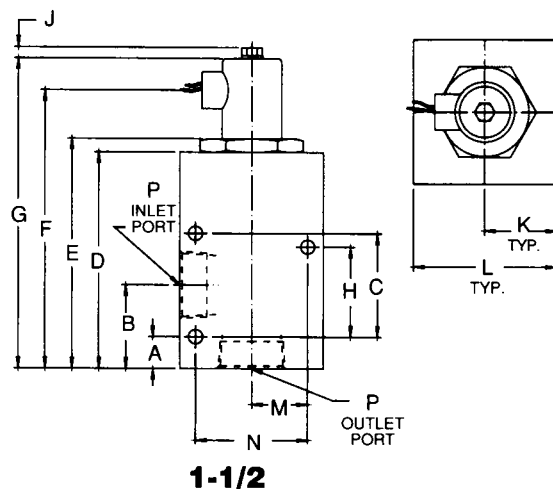
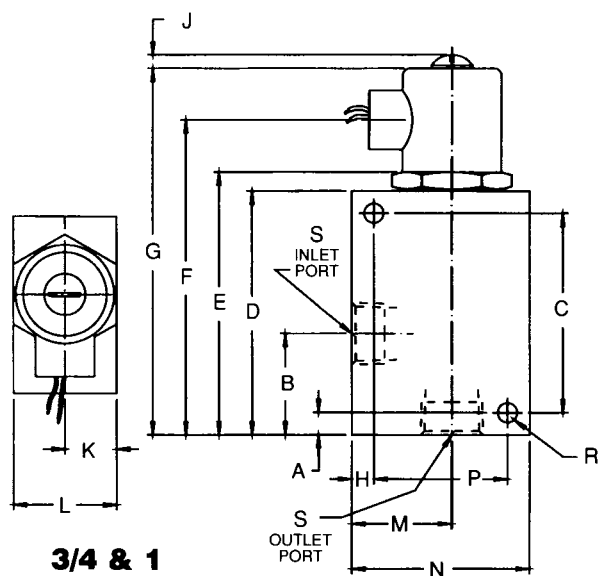
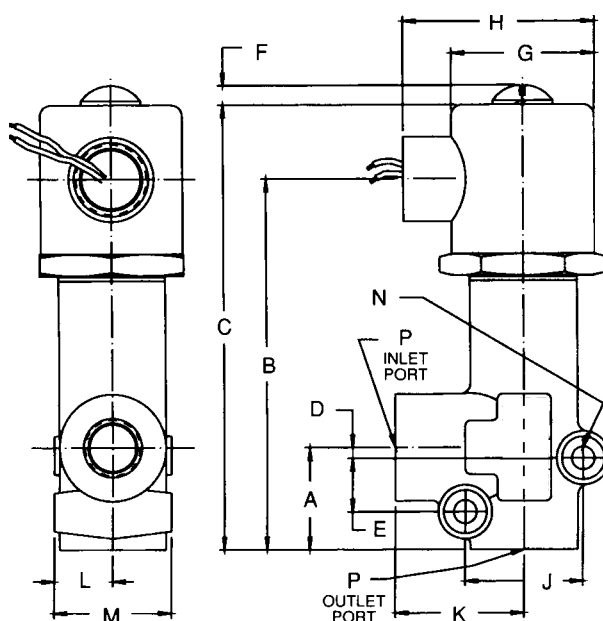
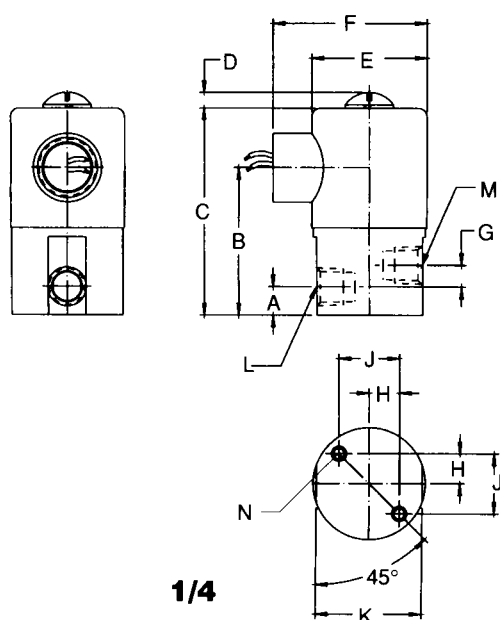
* Not available for 5000 PSI valves.

Construction Views



Solenoid Construction Views





	Valve Size	All Dimensions are in Inches															
		A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S
Normally Closed	1/4	13/32	2 1/16	3 1/8	1/4	1 5/8	2 7/32	9/32	7/16	7/8	—	1/4 NPT	1/4 NPT	10-32 Thds	—	—	—
Normally Closed	3/8	1 3/16	2 15/16	4	1/8	.625	1/4	1 21/32	2 7/32	1.375	1 1/2	11/16	1 3/8	17/64 Dia.	3/8 NPT	—	—
Normally Closed	1/2	1 3/16	2 15/16	4	1/8	.625	1/4	1 21/32	2 7/32	1.375	1 1/2	11/16	1 3/8	17/64 Dia.	1/2 NPT	—	—
Normally Closed	3/4	3/8	1 23/32	3 3/8	4 1/8	4 7/16	5 1/8	6 3/16	3/8	1/4	11/16	1 3/4	1 11/16	3	2 1/4	21/64 Dia.	3/4 NPT
Normally Closed	1	5/8	1 31/32	3 3/8	4 3/8	4 11/16	5 3/8	6 7/16	5/8	1/4	11/16	1 3/4	1 15/16	3 1/4	2 1/4	21/64 Dia.	1 NPT
Normally Closed	1 1/2	7/8	2 5/16	2 7/8	6	6 3/8	7 1/16	8 1/8	2 1/2	1/4	2	4	1 9/16	3 1/8	1 1/2 NPT	—	—