

## SOLENOID VALVES

4707 Massachusetts Ave. - P.O. Box 18128  
 Indianapolis, Indiana 46218-0128  
 Ph: 1-800-63 GOULD   Fx: (317) 547-5234  
 Web: <http://www.gouldvalve.com>  
 E-mail: [gouldvalve@gouldvalve.com](mailto:gouldvalve@gouldvalve.com)

## 3/4"-2" NPT TYPE D Series

2-WAY • CAST BRONZE BODIES • VELVETROL® INTERNAL PISTON PILOT OPERATED SOLENOID VALVES • NORMALLY CLOSED OR NORMALLY OPEN • FULL PORT • MANUAL OPEN • ADJUSTABLE CLOSING SPEED



- ★ FOR: GENERAL SERVICE-AIR-INERT GASES-WATER-OIL-STEAM
- ★ PRESSURES: 5 PSI DIFFERENTIAL MINIMUM TO 1200 PSI MAXIMUM
- ★ TEMPERATURE: -40°F. MIN TO 450°F MAX. FLUID
- ★ MOUNTING: INSTALL IN HORIZONTAL LINE WITH COIL UPRIGHT AND ON TOP

SIZES 3/4" – 2" NPT FULL PORT		
★ <b>SERVICE RATINGS</b>	Pricing, Service & Electrical Ratings shown in the List Price Schedule. Valves will be furnished for 5-150 PSI and 120 VAC Unless Otherwise Specified.	
NORMALLY CLOSED--		--NORMALLY OPEN
<b>TYPE D</b>	GENERAL SERVICE AIR-WATER-OIL-INERT GASES 5-150 PSI, 300°F. Max. Fluid, Class F Coil	<b>TYPE DR</b>
<b>TYPE DS</b>	GENERAL SERVICE AIR-WATER-OIL-INERT GASES 10-400 PSI, (10-300 Normally Open) 300°F. Max. Fluid, Class F Coil	<b>TYPE DR</b>
<b>TYPE DST</b>	LIQUID SERVICE ONLY 20-700 PSI, 300°F. Max. Fluid, Class F Coil	n/a
<b>TYPE DHP</b>	LIQUID SERVICE ONLY 20-1200 PSI, 300°F. Max. Fluid, Class F Coil	n/a
<b>ADD L</b>	PROVIDES ADJUSTMENT TO CONTROL FLOWRATE	<b>ADD L</b>
<b>ADD -1</b>	HIGH TEMP. (CLASS N) COILS - FLUID TEMP. TO 450°F. STEAM to 200 PSI.	<b>ADD -1</b>
<b>ADD -2</b>	EXPLOSION PROOF COIL HOUSING -NEMA 7, WATERTIGHT and Dust-tight	<b>ADD -2</b>
<b>ADD -3B, -3EP -3T, -3V</b>	LEAKPROOF PILOT SEAT: -3B (BUNA), -3EP (ETHYLENE- PROPYLENE), -3T (TEFLON®) PTFE, -3V (VITON®) FLUOROCARBON	<b>ADD -3B, -3EP -3T, -3V</b>
<b>ADD -24</b>	WATER TIGHT COIL HOUSING - NEMA 4	<b>ADD -24</b>
<b>ADD -25</b>	DUST TIGHT COIL HOUSING - NEMA 5	<b>ADD -25</b>
<b>ADD -57</b>	MANUAL RESET/SAFETY SHUT-OFF, NO VOLTAGE RELEASE.	<b>ADD -57</b>

- ★ **CONSTRUCTION:**  
 CLASS F & N COILS are Waterproof, Fungusproof, Molded of Filled Polyester with 18" Leads.  
 BODIES are Sand Cast in Bronze rated 1200 psi. PISTON SPRINGS are 316 or 302 SS.  
 BONNET ASSEMBLIES are 304 SS TUBES silver soldered to Brass BONNET and TUBE PLUG.  
 PISTON ASSEMBLIES are Brass with Filled Teflon® PISTON RINGS, Stainless Steel EXPANDERS, and Buna, EP, Fluorocarbon Or Virgin Teflon® SEAT DISCS.  
 PILOT ASSEMBLIES are 416 SS ARMATURE with a 316 SS PILOT POINT and 316 SS PINS.
- ★ **SPECIALS:**  
 Teflon® Coated Pistons & other Special Assemblies Available. Non-Standard Coils are Available with Voltage, Wattage, and Lead Wire Length to your specifications. Consult Factory.
- ★ **TERMS AND CONDITIONS OF SALE:** See the List Price Schedule.

# PERFORMANCE, ORDERING AND INSTALLATION GUIDE

**ORDERING DATA**--SPECIFY PIPE SIZE, TYPE, FLUID, OPERATING PRESSURE, TEMPERATURE RANGE, ELECTRICAL SPECIFICATIONS, BACK PRESSURE (IF ANY).

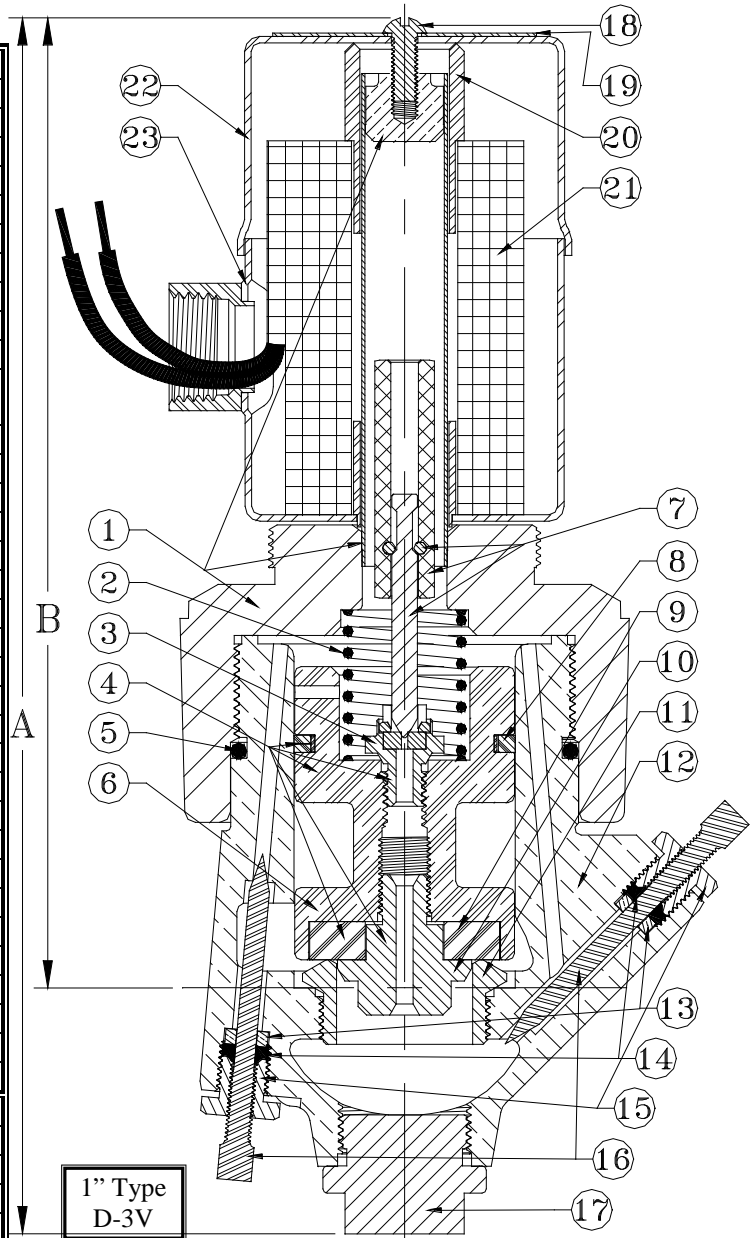
**FLOW CHARACTERISTICS**--SEE FLOW CURVES IN BULLETIN 5-FL, OR Cv FACTORS LISTED BELOW AND IN BULLETIN CP-1.

**OPERATION**--PISTON PILOT OPERATED. MINIMUM PRESSURE DROP OF 5 PSI ( $\Delta P$ ) IS REQUIRED ACROSS VALVE FOR OPERATION. TURN STEM MARKED "MAN OPN" COUNTER CLOCKWISE TO OPEN THE VALVE MANUALLY. TURN CLOCKWISE UNTIL SEATED TO CLOSE VALVE FOR NORMAL OPERATION.

**MOUNTING**--MOUNT IN HORIZONTAL LINE WITH COIL VERTICAL AND ON TOP. INSTALL 40 MESH STRAINER (NOT LARGER) AHEAD OF VALVE. CHECK FOR PROPER COIL VOLTAGE. MAKE SURE THAT THE FLOW ARROW ON VALVE BODY IS POINTING IN THE DIRECTION OF FLOW.

**SERVICING**--SOLENOID VALVES SHOULD BE FREQUENTLY CHECKED FOR OPERATION, CLEANLINESS, & INTERNAL WEAR - REPAIR KITS ARE FACTORY AVAILABLE --GIVE SIZE, TYPE, SERIAL NUMBER OR OPERATING DATA (VOLTAGE, PRESSURE, ETC.)

#	Part Description	Valve Type	3/4"	1"	1 1/4"	1 1/2"	2"
1	N. C. Bonnet Assembly	D & D-2	74XP	74XP	83XP	83XP	76XP
	N. O. Bonnet Assembly	DR & DR-2	74XPR	74XPR	83XPR	83XPR	76XPR
2	Piston Spring	ALL	37-2	37-2	37-2	37-2	37-2
	HP Piston Spring	ALL HP's	37-1	37-1	37-1	37-1	37-1
3	Seat Screw	ALL	31-x	31-x	31-x	31-x	31-x
4	Piston Assembly	ALL	P72	P72	P56-1	P56-1	P77-1
5	Bonnet Seal	ALL	2-228	2-228	2-235	2-235	2-240
6	Piston Only	ALL	72	72	56	56	77
7	N.C. Pilot Assembly	D & D-2	P22-1	P22-1	P22-1	P22-1	P22-1
	N.O. Pilot Assembly	DR & DR-2	P32R6	P34R6	P32R6	P32R6	P32R6
8	Piston Ring & Expander	ALL	P58	P58	P60	P60	P61
9	Seat Disc	ALL	36-1x	36-1x	36-112x	36-112x	36-2x
10	Disc Screw	ALL	27	27	53	53	80
11	Seat Ring	ALL	26	26	n/a	n/a	n/a
12	Body	ALL	P70-1	P70-2	P48	P49	P75
13	Packing Retainer	ALL	69	69	69	69	69
14	Packing	ALL	16	16	16	16	16
15	Packing Gland	ALL	15	15	15	15	15
16	Adjustment Stem	ALL	2-1	2-1	2-1	2-1	2-1
17	Bottom Plug	ALL	20	20	20	20	78
18	Coil Screw	ALL	9	9	9	9	9
19	Nameplate	ALL	44-x	44-x	44-x	44-x	44-x
20	N.C. Top Nip	D	115-2	115-2	115-2	115-2	115-2
	N.O. Top Nip	DR	115-3	114-3	115-3	115-3	115-3
	XP End Plate	D-2 & DR-2	113	113	113	113	113
21	Coil	Consult Factory or List Price Schedule					
22	N.C. Coil Cover	D	89	89	89	89	89
	N.O. Coil Cover	DR	89NO	89NO	89NO	89NO	89NO
	N.C. XP Coil Cover	D-2	42NC	42NC	42NC	42NC	42NC
	N.O. XP Coil Cover	DR-2	42NO	42NO	42NO	42NO	42NO
	Bolts	D-2 & DR-2	9-4	9-4	9-4	9-4	9-4
	Washers	D-2 & DR-2	46-3	46-3	46-3	46-3	46-3
23	Coil Housing	D & DR	87	87	87	87	87
	XP Coil Housing	D-2 & DR-2	41	41	41	41	41
	Dimension A	D	8.95	8.95	9.83	9.83	11.35
		DR	9.91	9.91	10.80	10.80	12.30
		D-2	9.05	9.05	9.99	9.99	11.50
		DR-2	10.20	10.20	11.11	11.11	12.61
	Dimension B	D	7.15	7.15	7.71	7.71	8.75
		DR	8.10	8.10	10.80	10.80	8.70
		D-2	7.25	7.25	7.86	7.86	8.86
		DR-2	8.40	8.40	8.99	8.99	9.99
	End to End Length	ALL	4.25	4.25	6.13	6.13	6.19
	Cv	ALL	6.3	11.5	18.0	28.0	50.0



Valve Weight (lb)	3/4"	1"	1 1/4"	1 1/2"	2"
D	12	13	24	26	30
DR	16	17	28	30	34
D-2	12	13	24	26	30
DR-2	16	17	28	30	34