

SOLENOID VALVES

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1/8" • 1/4" • 3/8" NPT
**TYPES F & G
 SERIES**

2-WAY • PACKLESS • DIRECT ACTING
 GENERAL PURPOSE SOLENOID VALVES
 NORMALLY CLOSED OR NORMALLY OPEN • FRACTIONAL PORT



- ★ SIZES: 1/8", 1/4", 3/8" NPT • FRACTIONAL ORIFICE
- ★ TYPE F: BRASS BODY
- ★ TYPE G: 303 STAINLESS STEEL BODY
- ★ FOR: GENERAL SERVICE-AIR-INERT GASES-WATER-OIL-STEAM
- ★ PRESSURES: 0 TO RATED MAXIMUM
- ★ TEMPERATURE: -420°F. MIN TO 450°F MAX. FLUID
- ★ MOUNTING: INSTALL IN HORIZONTAL LINE WITH COIL UPRIGHT AND ON TOP

SIZES 1/8" - 3/8" NPT FRACTIONAL PORT

★ SERVICE RATINGS

Pricing, Service & Electrical Ratings shown in the List Price Schedule.
 Valves will be furnished for 150 psi Air & Water Service and 120 VAC Unless Otherwise Specified.

GENERAL SERVICE: AIR-WATER-OIL-INERT GAS 0 to Maximum Operating Pressure Differential 300°F. Max. Fluid Temperature Class F Coil 12, 24, 55, 120, 240, 480 VAC 50/60 Hz 12, 24, 32, 115, 230 VDC	MAXIMUM OPERATING PRESSURE DIFFERENTIAL									
	TYPE		ORIFICE	1/4"	7/32"	3/16"	5/32"	1/8"	3/32"	1/16"
	NORMALLY CLOSED	F G 14 WATTS	AIR-GAS	40	50	120	175	300	550	800
WATER			30	45	60	90	140	250	500	
OIL			15	24	32	45	75	130	230	
FST GST 26 WATTS		AIR-GAS	130	180	250	360	600	1000	1000	
		WATER	30	50	80	110	180	320	600	
		OIL	20	30	40	70	110	200	500	
NORM OPEN	FR GR 14 WATTS	AIR-GAS	20	40	60	90	150	270	300	
		WATER	15	25	30	45	70	125	250	
		OIL	6	10	16	23	35	60	115	

HIGH TEMP. SERVICE: AIR-INERT GASES-STEAM- HOT LIQUIDS 0 to Maximum Operating Pressure Differential 450°F. Max. Fluid Temperature Class N Coil 120, 240, 480 VAC 50/60 Hz,	MAXIMUM OPERATING PRESSURE DIFFERENTIAL									
	TYPE		ORIFICE	1/4"	7/32"	3/16"	5/32"	1/8"	3/32"	1/16"
	NORMALLY CLOSED	F-1 G-1 20 WATTS	AIR-GAS	40	80	120	175	300	550	800
WATER			30	45	60	90	140	250	500	
OIL			15	24	32	45	75	130	230	
STEAM			40	80	120	200	200	200	200	
NORMALLY OPEN	FR-1 GR-1 20 WATTS	AIR-GAS	20	40	60	90	150	270	300	
		WATER	15	25	30	45	70	125	150	
		OIL	6	10	16	23	35	60	150	
		STEAM	20	40	60	90	150	200	200	

- ADD -2** EXPLOSION PROOF COIL HOUSING – NEMA 7
- ADD -3B, -3T, -3V, -3EP** LEAKPROOF SEAT: -3B: BUNA, -3T: PTFE (Teflon®), -3V: FLOUROCARBON (VITON®), -3EP: ETHYLENE PROPYLENE
- ADD -24** WATER TIGHT COIL HOUSING - NEMA 4 & NEMA 7
- ADD -25** DUST TIGHT COIL HOUSING - NEMA 5 & NEMA 7
- ADD -57** MANUAL RESET, SAFETY SHUT-OFF, NO VOLTAGE RELEASE.
- ADD -9** SPECIAL CONSTRUCTION FOR CRYOGENIC APPLICATIONS. FLUID TEMPERATURE TO -420°F

★ **CONSTRUCTION:** CLASS F & N COILS are Waterproof, Fungusproof, Molded of Filled Polyester with 18" Leads. 303 Stainless Steel PLUNGER TUBE is Silver Soldered or Welded into the 90° Angled, Brass, or 303 Stainless Steel BODY, providing side inlet and bottom outlet. PILOT ASSEMBLY is a 416 SS ARMATURE connected to the 303 SS POINT, that provides direct opening and closing of the valve. All COIL HOUSINGS have 1/2" threaded conduit connections.

- ★ **SPECIALS:** Teflon® Coated Pilot & 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 Back Cover of 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).

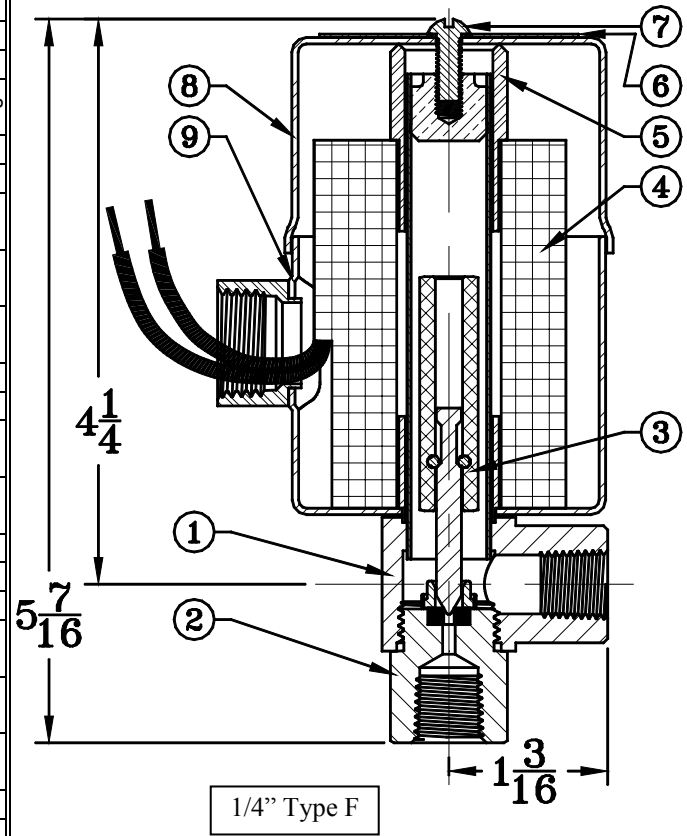
FLOW CHARACTERISTICS--SEE FLOW CURVES IN BULLETIN 5-FL, OR Cv FACTORS LISTED BELOW AND IN BULLETIN CP-1.

OPERATION--DIRECT ACTING FOR OPERATION FROM 0 TO RATED PRESSURE.

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 INLET IS ON THE SIDE AND THE OUTLET IS DOWN.

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	NEMA Rating	TYPES F, -2,-24,-25			TYPES G, -2,-24,-25		
			1/8"	1/4"	3/8"	1/8"	1/4"	3/8"
1	Body	1	P1801F	P1802F	P1803F	P1801G	P1802G	P1803G
	XP Body	4, 5, 7	P1801FXP	P1802FXP	P1803FXP	P1801GXP	P1802GXP	P1803GXP
	N.O. Body	1	P1801FR	P1802FR	P1803FR	P1801GR	P1802GR	P180GR
	N.O. XP Body	4, 5, 7	P1801FRXP	P1802FRXP	P1803FRXP	P1801GRXP	P1802GRXP	P1803GRXP
2	Body Nut	ALL	1811Fx	1812Fx	1813Fx	1811Gx	1812Gx	1813Gx
3	Pilot Assm.	1	P21-1	P21-1	P21-1	P21-1	P21-1	P21-1
	XP Pilot Assm.	4, 5, 7	P25-1	P25-1	P25-1	P25-1	P25-1	P25-1
	N.O. Pilot Assm.	1	P32R1	P32R1	P32R1	P32R1	P32R1	P32R1
	N.O. XP Pilot Assm.	4, 5, 7	P32R1	P32R1	P32R1	P32R1	P32R1	P32R1
4	Coil	ALL	Consult Factory Or List Price Schedule					
5	Top Nip	1	115-2	115-2	115-2	115-2	115-2	115-2
	XP End Plate	4, 5, 7	113	113	113	113	113	113
	N.O. Top Nip	1	115-3	115-3	115-3	115-3	115-3	115-3
6	Nameplate	ALL	44-1x	44-1x	44-1x	44-1x	44-1x	44-1x
7	Screw	ALL	9	9	9	9	9	9
8	Coil Cover	1	89	89	89	89	89	89
	XP Coil Cover	4, 5, 7	42NC	42NC	42NC	42NC	42NC	42NC
	N.O. Coil Cover	1	89NO	89NO	89NO	89NO	89NO	89NO
	N.O. XP Coil Cover	4, 5, 7	42NO	42NO	42NO	42NO	42NO	42NO
	Bolts	4, 5, 7	9-4	9-4	9-4	9-4	9-4	9-4
	Washers	4, 5, 7	46-3	46-3	46-3	46-3	46-3	46-3
9	Coil Housing	1	87	87	87	87	87	87
	XP Coil Housing	4, 5, 7	41A	41A	41A	41A	41A	41A



Physical Dimensions

Orifice	3/64"	1/16"	5/64"	3/32"	7/64"	1/8"	5/32"	3/16"	7/32"	1/4"
Cv	0.05	0.08	0.12	0.18	0.26	0.30	.050	.070	1.00	1.20
Shipping Weight for all Nema 1 Type F & G Valves is 2 lbs										
Shipping Weight for all Nema 4, 5, & 7 Type F & G (-2) Valves is 6 lbs										
For Height Values of Nema 4, 5, & 7 Valves Add 0.69"										
For Height Values of Normally Open Valves Add 1.00"										
For Height Values of Normally Open, Nema 4, 5, & 7 Valves Add 1.75"										