

Features

- Range of products for vacuum service applications on vacuum breaking and roughing pumps
- Zero Minimum Operating Pressure Differential
- Elastomers de-gassed and cleaned ("VH" suffix)
- Mountable in any position, except as noted

Application

Conditions	Pressure
Low (and Rough)	760 to 25 Torr (or 29" Hg)
Medium (and Fine)	25 to 10 ⁻³ Torr
High	10 ⁻³ to 10 ⁻⁶ Torr
Very High	10 ⁻⁶ to 10 ⁻⁹ Torr
Ultra High	10 ⁻⁹ Torr and Below

Electrical

Standard Coil and Class of Insulation	Watt Rating and Power Consumption			Spare Coil Part No.	
	AC			General Purpose	Explosionproof
	Watts	VA Holding	VA Inrush	AC	AC
F	6.1	16	30	238210	238214
F	10.1	25	70	238610	238614
F	16.1	35	180	272610	272614
F	17.1	40	93	238610	238614

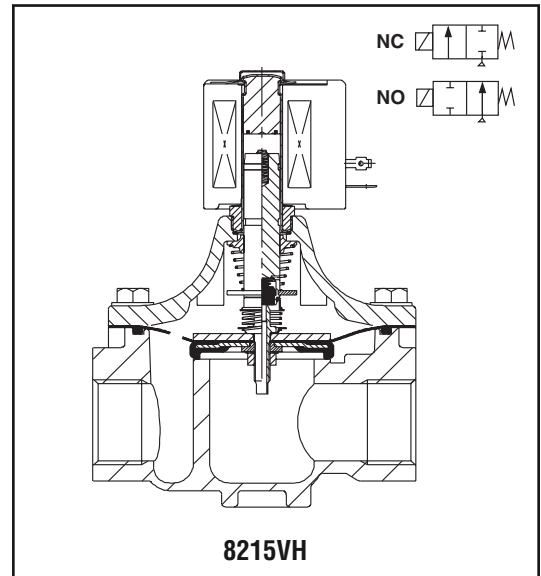
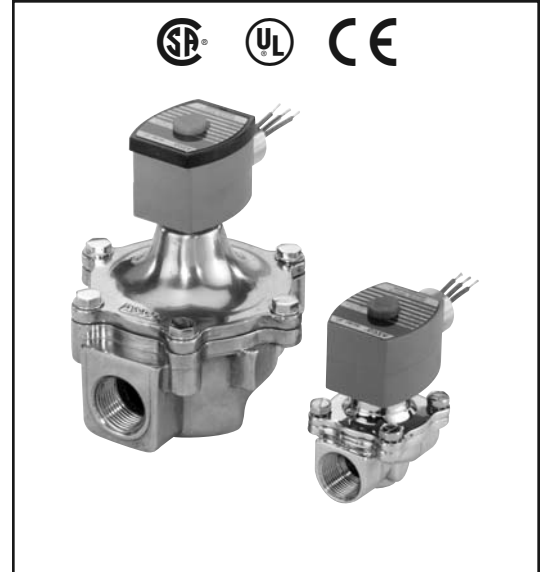
Standard Voltages: 24, 120, 240, 480 volts AC, 60 Hz (or 110, 220 volts AC, 50 Hz). Must be specified when ordering. Other voltages, including DC, available when required.

Solenoid Enclosures

Standard: Watertight, Types 1, 2, 3, 3S, 4, and 4X.

Optional: Explosionproof and Watertight, Types 3, 3S, 4, 4X, 6, 6P, 7, and 9. (To order, add prefix "EF" to catalog number.)

See *Optional Features Section* for other available options.



SPECIAL SERVICE VALVES

Nominal Ambient Temp. Ranges

32°F to 125°F (0°C to 52°C)

Refer to *Engineering Section* for details.

Approvals

CSA certified. Meets applicable CE directives.

Refer to *Engineering Section* for details.

Specifications (English units)

Pipe Size (ins.)	Orifice Size (ins.)	Cv Flow Factor	Operating Pressure Differential (psi)		Body Material	Application Guide					Max. Fluid Temp. °F	Medium Vacuum to 10 ⁻³ Torr ③	High Vacuum to 10 ⁻⁶ Torr ③	Const. Ref.	Watt Rating/ Class of Coil Insulation ②
			Min.	Max.		Electrical Check	Breaker	Roughing	Foreline or High Vacuum	Suction or Release					
NORMALLY CLOSED (Closed when de-energized)															
1/4	9/32	0.96	0	15	Brass	●	●	●	●	●	180	8262G090VM	8262G090VH	1	6.1/F
3/8	3/8	1.8	0	15	Brass	●	●	●	●	●	180	8030G013VM	8030G013VH	2	10.1/F
1/2	7/16	2.8	0	15	Brass	●	●	●	●	●	180	8030G017VM	8030G017VH	3	16.1/F
3/4	3/4	5	0	4	Brass	●	-	-	-	-	180	8030G043VM	8030G043VH	4	17.1/F
3/4	3/4	5	0	15	Brass	-	●	-	-	●	180	8210G095VM	8210G095VH	5	10.1/F
1	1 5/8	20.5	0	15	Alum.	-	●	-	-	●	125	8215G050VM ①	8215G050VH ①	8	16.1/F
1 1/4	1 5/8	31.7	0	15	Alum.	-	●	-	-	●	125	8215G060VM ①	8215G060VH ①	8	16.1/F
1 1/2	1 5/8	32.7	0	15	Alum.	-	●	-	-	●	125	8215G070VM ①	8215G070VH ①	9	16.1/F
2	2 3/32	55	0	15	Alum.	-	●	-	-	●	125	8215G080VM ①	8215G080VH ①	10	16.1/F
NORMALLY OPEN (Open when de-energized)															
3/8	5/8	3	0	15	Brass	-	●	-	-	●	180	8210G033VM	8210G033VH	6	10.1/F
1/2	5/8	4	0	15	Brass	-	●	-	-	●	180	8210G034VM	8210G034VH	6	10.1/F
3/4	3/4	5.5	0	15	Brass	-	●	-	-	●	180	8210G035VM	8210G035VH	7	10.1/F
1	1 5/8	20.5	0	15	Alum.	-	●	-	-	●	125	8215G053VM ①	8215G053VH ①	11	16.1/F
1 1/4	1 5/8	31.7	0	15	Alum.	-	●	-	-	●	125	8215G063VM ①	8215G063VH ①	11	16.1/F
1 1/2	1 5/8	32.7	0	15	Alum.	-	●	-	-	●	125	8215G073VM ①	8215G073VH ①	12	16.1/F
2	2 3/32	55	0	15	Alum.	-	●	-	-	●	125	8215G083VM ①	8215G083VH ①	13	16.1/F

① Valves must be mounted with solenoid vertical and upright.
 ② On 50 hertz service, the rating for the 6.1/F solenoid is 8.1 watts.
 ③ For low vacuum applications to 29" Hg, use standard catalog valves with 0 psi minimum, 15+ psi maximum OPD (except 2" NPT).

Specifications (Metric units)

Pipe Size (ins.)	Orifice Size (mm)	Kv Flow Factor (m3/h)	Operating Pressure Differential (bar)		Body Material	Application Guide					Max. Fluid Temp. °C	Medium Vacuum to 10 ⁻³ Torr ③	High Vacuum to 10 ⁻⁶ Torr ③	Const. Ref.	Watt Rating/ Class of Coil Insulation ②
			Min.	Max.		Electrical Check	Breaker	Roughing	Foreline or High Vacuum	Suction or Release					
NORMALLY CLOSED (Closed when de-energized)															
1/4	7	0.82	0	1	Brass	●	●	●	●	●	82	8262G090VM	8262G090VH	1	6.1/F
3/8	10	1.54	0	1	Brass	●	●	●	●	●	82	8030G013VM	8030G013VH	2	10.1/F
1/2	11	2.40	0	1	Brass	●	●	●	●	●	82	8030G017VM	8030G017VH	3	16.1/F
3/4	19	4.29	0	0.3	Brass	●	-	-	-	-	82	8030G043VM	8030G043VH	4	17.1/F
3/4	19	4.29	0	1	Brass	-	●	-	-	●	82	8210G095VM	8210G095VH	5	10.1/F
1	41	17.57	0	1	Alum.	-	●	-	-	●	52	8215G050VM ①	8215G050VH ①	8	16.1/F
1 1/4	41	27.17	0	1	Alum.	-	●	-	-	●	52	8215G060VM ①	8215G060VH ①	8	16.1/F
1 1/2	41	28.03	0	1	Alum.	-	●	-	-	●	52	8215G070VM ①	8215G070VH ①	9	16.1/F
2	53	47.14	0	1	Alum.	-	●	-	-	●	52	8215G080VM ①	8215G080VH ①	10	16.1/F
NORMALLY OPEN (Open when de-energized)															
3/8	16	2.57	0	1	Brass	-	●	-	-	●	82	8210G033VM	8210G033VH	6	10.1/F
1/2	16	3.43	0	1	Brass	-	●	-	-	●	82	8210G034VM	8210G034VH	6	10.1/F
3/4	19	4.71	0	1	Brass	-	●	-	-	●	82	8210G035VM	8210G035VH	7	10.1/F
1	41	17.57	0	1	Alum.	-	●	-	-	●	82	8215G053VM ①	8215G053VH ①	11	16.1/F
1 1/4	41	27.17	0	1	Alum.	-	●	-	-	●	52	8215G063VM ①	8215G063VH ①	11	16.1/F
1 1/2	41	28.03	0	1	Alum.	-	●	-	-	●	52	8215G073VM ①	8215G073VH ①	12	16.1/F
2	53	47.14	0	1	Alum.	-	●	-	-	●	52	8215G083VM ①	8215G083VH ①	13	16.1/F

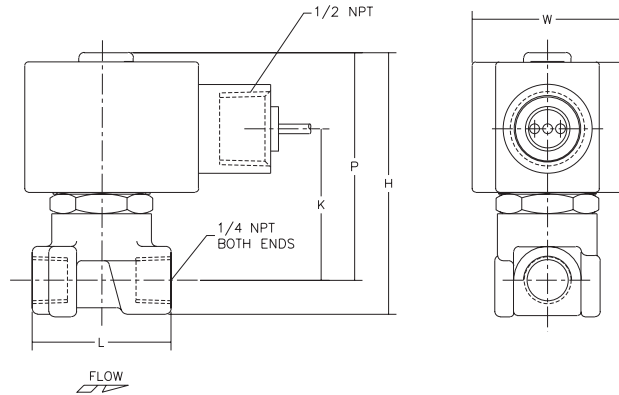
① Valves must be mounted with solenoid vertical and upright.
 ② On 50 hertz service, the rating for the 6.1/F solenoid is 8.1 watts.
 ③ For low vacuum applications to 29" Hg, use standard catalog valves with 0 bar minimum, 1+ bar maximum OPD (except 2" NPT).

SPECIAL SERVICE VALVES

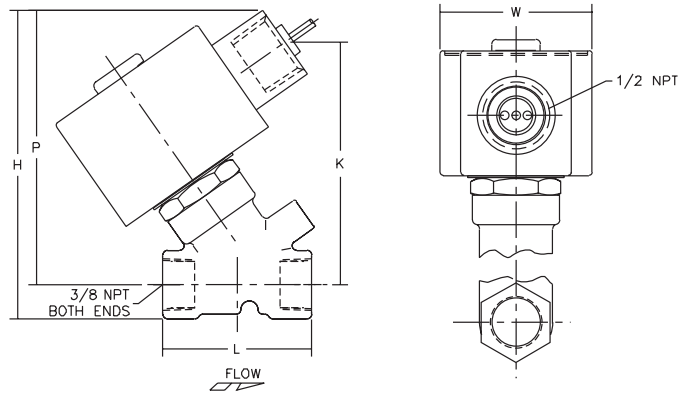
Dimensions inches (mm)

Const. Ref.		H	K	L	P	W
1	ins.	2.98	1.71	1.56	2.57	1.69
	mm	76	43	40	65	43
2	ins.	4.00	3.14	1.91	3.55	1.95
	mm	102	80	49	90	50
3	ins.	4.13	2.84	2.28	3.56	2.22
	mm	105	72	58	90	56
4	ins.	4.10	2.44	2.81	3.41	2.28
	mm	104	62	71	87	58
5	ins.	4.13	2.47	2.81	3.44	2.28
	mm	105	63	71	87	58
6	ins.	4.35	2.65	2.75	3.79	2.28
	mm	110	67	70	96	58
7	ins.	4.64	2.81	2.81	3.94	2.28
	mm	118	71	71	100	58
8	ins.	6.79	4.26	5.00	5.48	5.38
	mm	174	108	127	139	137
9	ins.	6.79	4.32	5.00	5.54	5.38
	mm	174	110	127	141	137
10	ins.	7.42	4.66	6.09	5.89	6.31
	mm	188	118	155	150	160
11	ins.	6.79	2.35	5.00	3.13	5.38
	mm	172	60	127	79	137
12	ins.	6.79	2.29	5.00	3.06	5.38
	mm	172	58	127	78	137
13	ins.	6.94	2.54	6.09	3.31	6.31
	mm	176	65	155	84	160

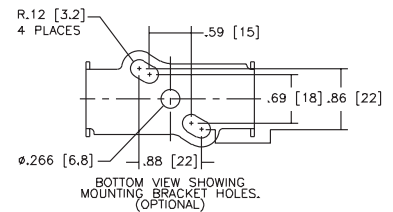
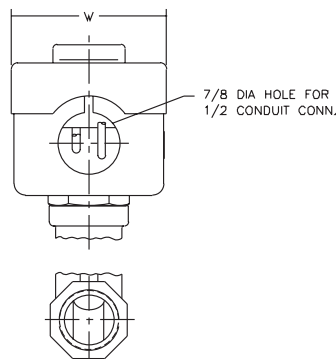
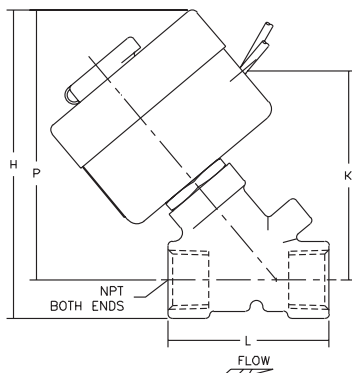
Const. Ref. 1



Const. Ref. 2



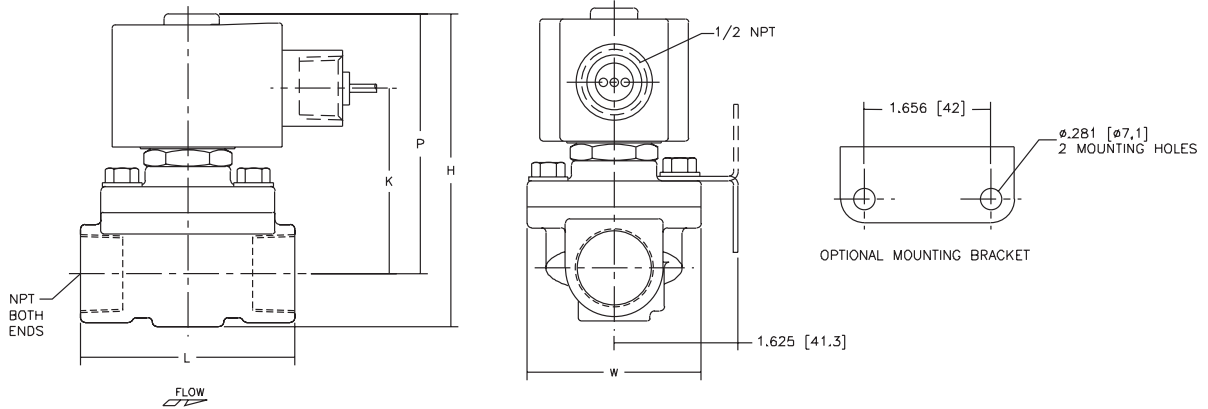
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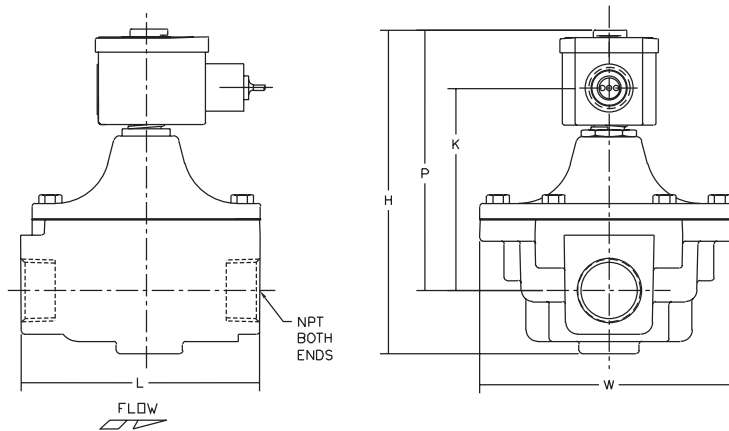
SPECIAL
SERVICE VALVES

Dimensions inches (mm)

Const. Ref. 4, 5, 6, 7



Const. Ref. 8, 9, 10



Const. Ref. 11, 12, 13

