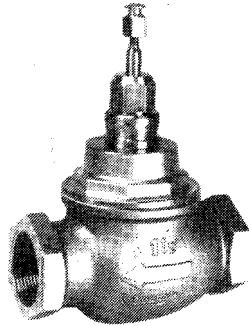


# Honeywell

## V5011A,B,F,G SINGLE-SEATED VALVES



V5011

THE V5011 IS A SINGLE-SEATED VALVE FOR CONTROL OF STEAM AND WATER IN HEATING OR AIR CONDITIONING APPLICATIONS. THESE VALVES ARE USED IN TWO-POSITION AND MODULATING CONTROL SYSTEMS. A LINKAGE AND MOTOR ARE REQUIRED FOR VALVE OPERATION; ORDER SEPARATELY.

THESE VALVES ARE NOT SUITABLE FOR COMBUSTIBLE GAS SERVICE.

□ V5011A □ V5011B □ V5011F □ V5011G

- Sizes range from 1/2 to 6 in.
- Available with screw or flanged pipe connections.
- Direct- or reverse-acting models.
- Valve designs provide equal percentage flow characteristic for close control of water, and linear flow characteristic for close control steam.
- Spring-loaded, self-adjusting packing.
- Stainless steel stem prevents corrosion which should be injurious to the packing.
- V5011G models available with metal-to-metal seating for high pressure applications.

## SPECIFICATIONS

Table 1

Model Number	Disc Material	Valve Body Pipe-Connections	Pipe Size (in.)	Flow Capacity (Cv)	Close-Off Pressure Ratings (psig)				
					Linkage Seal-Off Force <sup>a</sup>				
					160 lb.	80 lb.	300 lb.		
V5011 F (Equal Percentage Flow Characteristic)	Composition	Screw	1/2	0.63	150	150	200		
				1.0					
				1.6					
				2.5					
				4.0					
			3/4	6.3	150	122	200		
				10.0	150	106	200		
				16.0	141	60	200		
				25.0	91	39	170		
				40.0	55	22	91		
V5011A (Equal Percentage Flow Characteristic)	Composition	Flanged	2-1/2	63.0	20	8	38		
				100.0	20	7	37		
			3	160.0	10	—	19		
				250.0	6	—	11		
				360.0	4	—	7		
				—	—	—	—		
V5011B (Equal Percentage)	Composition	Flanged	4	160.0	10	—	19		
			5	250.0	6	—	11		
			6	360.0	4	—	7		
V5011G (Linear Flow Characteristic)	Composition	Screw	2	40.0	55	22	91		
				63.0	32	12	67		
				100.0	20	8	38		
			Metal-to-Metal <sup>b</sup>	Screw	1/2	0.40	150	150	200
						0.63			
	1.0								
	1.6								
	2.5								
	3/4	6.3	150	122	170				
		10.0	150	106					
16.0		141	60						
25.0		91	39						
40.0		55	22						

<sup>a</sup> Maximum linkage seal-off force on valve stem is either 160 or 80 lb., depending upon the valve linkage used, as follows: 160 lb.—Q616A(160 lb. model); Q601D,E,J,K; Q455B,C,D; 80 lb.—Q618A(80 lb. model); Q601 F,G,H,L,M; Q455A,E,F,G, 30 lb.—Q601 P for use with 4 to 6 inch V5011. Q601Q for use with 1/2 to 3 inch V5011.

<sup>b</sup> Stainless steel seats and trim. For modulating steam service. NOT RECOMMENDED FOR MODULATING WATER.

# STANDARD MODELS

## MODELS:

**V5011A,F** Valve-single-seated valve for water or 2-position steam. Throttling plug provides equal percentage characteristic of flow. Push valve stem down to close valve flanged and screwed pipe connections. Refer to Table 1.

**V5011 B** Valve-single-seated valve for water or 2-position steam. Throttling plug provides equal percentage characteristic of flow. **NOT RECOMMENDED FOR MODULATING STEAM.** Push valve stem down to open valve (reverse acting). Flanged pipe connections. Refer to Table 1.

**V5011G** Valve-single-seated valve for modulating steam; also suitable for 2-position steam. Throttling plug provides linear characteristic of flow. push valve stem down to close valve. Screw pipe connections. Refer to Table 1.

**PIPE CONNECTIONS:** 1/2 to 3 in. valves have screw connections; 2-1/2 to 6 in. valves have flanged connections.

**SEAT:** Brass, removable, on screw end models; bronze, removable, on flanged end models.

**STEM:** Stainless steel.

**DISC:** Composition discs with removable throttling plugs; some models of the V5011 C have a metal-to-metal valve disc for high pressure applications.

**STROKE:** 1/2 to 3 in. valves-314 in.; 4 to 6 in. valves-1-1/2 in.

**PATTERN:** Straight-through.

**BODY MATERIAL:** Screw end connection models-bronze; flanged end connection models-ast iron.

**PACKING:** Spring-loaded self-adjusting; **V5011F** Teflon/rubber V5011 G Teflon cone.

**PRESSURE-TEMPERATURE BODY RATINGS:** See Fig. 1

## VALVE FLOW CHARACTERISTICS:

Equal percentage flow characteristic-equal movements of the valve stem at any pint of the flow range change the existing flow by a constant percentage, regardless of the quantity of flow.

## PACKING LIMITS:

Water service **V5011A,F**—250 psi maximum pressure; 35 F to 250 F temperature range.

Steam service **V5011G**—100 psi maximum pressure; 337 F maximum temperature.

Alternating hot and cold water service-140 F maximum temperature difference. (Also see Fig. 1 for body pressure-temperature limits.)

**DIMENSIONS:** See Figs. 3-6.

**MOTOR AND LINKAGE SELECTION:** Refer to applicable Honeywell specification sheets for details and to the motor-valve selection guide for typical system components,

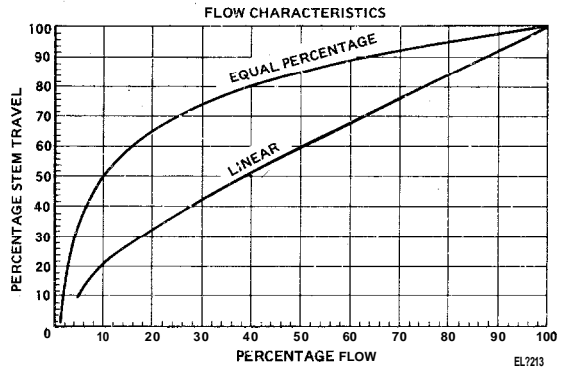


Fig. 2-GRAPH OF EQUAL PERCENTAGE AND LINEAR CHARACTERISTIC OF FLOW.

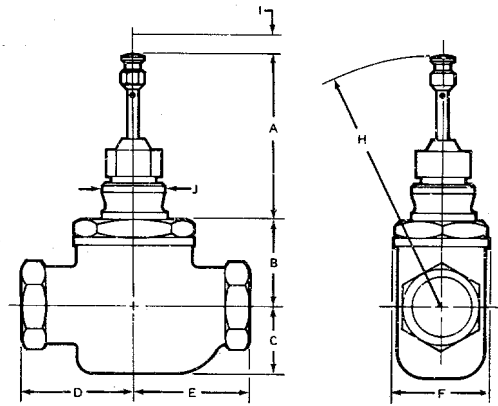
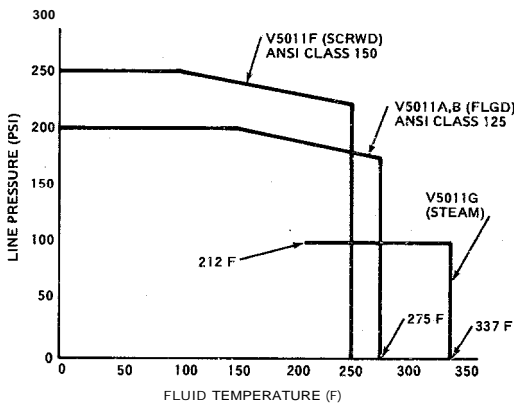


Fig. 3-V5011F,G SCREWED 1/2 TO 3 in. BODY DIMENSIONS, SEE TABLE II.



## NOTES:

- FOR HEATING FLUID TEMPERATURES, THE VALVE AND, OR PIPING SHOULD BE INSULATED TO PREVENT AMBIENT TEMPERATURES FROM EXCEEDING ACTUATOR RATINGS.
- MAXIMUM TEMPERATURE DIFFERENTIAL IN ALTERNATE HOT-COLD WATER USE, 140 F.

E2216A

Fig. 1—VALVE PRESSURE-TEMPERATURE RATINGS.

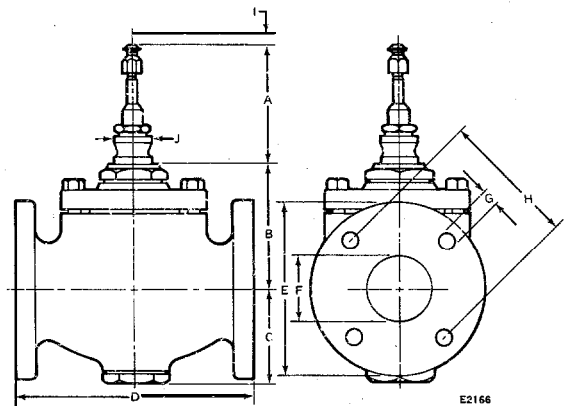


Fig. 4-V5011A FLANGED, 2-1/2 AND 3 in. BODY DIMENSIONS, SEE TABLE II.

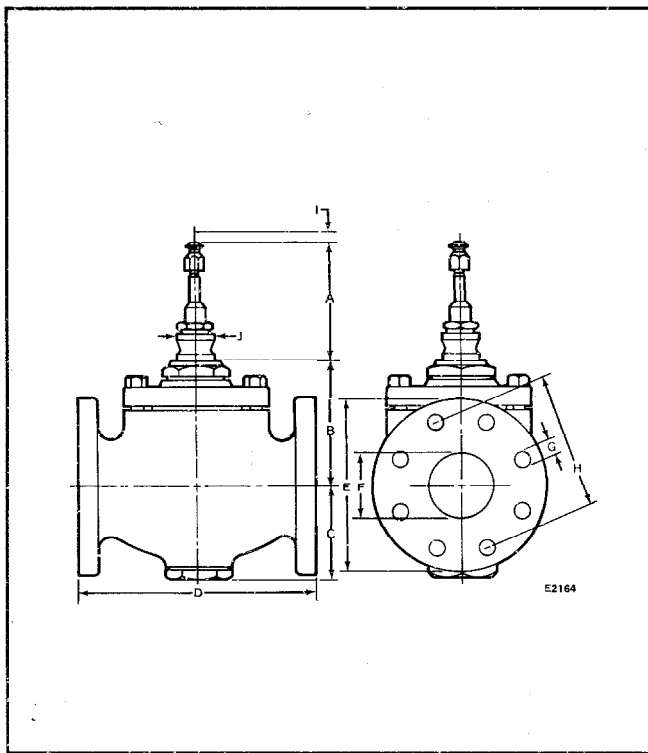


Fig. 5-V5011A FLANGED, 4,5, and 6 in. BODY DIMENSIONS. SEE TABLE II.

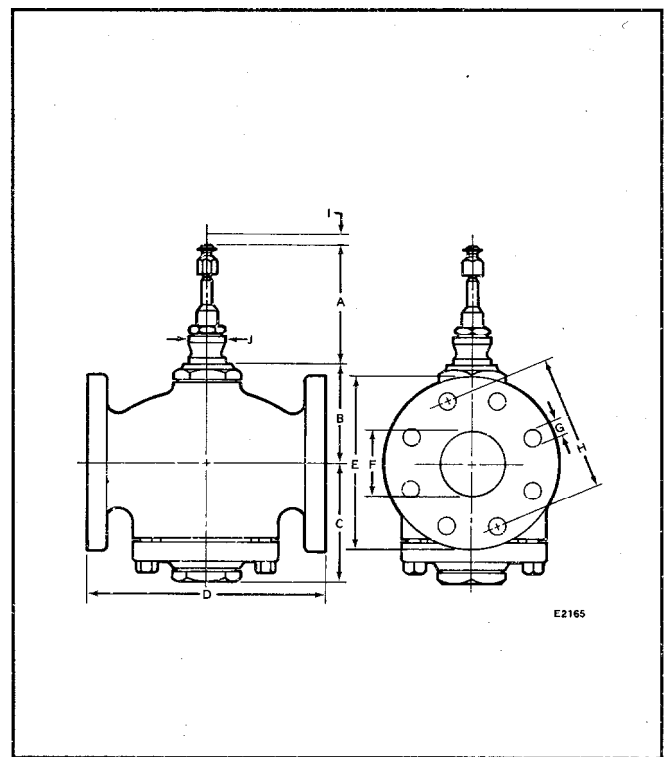


Fig. 6-V5011B FLANGED, 4,5, AND 6 in. BODY DIMENSIONS. SEE TABLE II.

Table II-DIMENSIONS FOR FIG. 3 THROUGH 6.

Body Style And Figure Reference	Size (in.)	Dimensions (IN in.)									
		A <sup>a</sup>	B	C	D	E	F	G	H	I(Travel)	J(Dim)
V5011F,G Screwed, Direct body (Fig. 2)	1/2	3-1/2	2	1-3/4	1-1/2	1-7/8	2		5-1/2	3/4	1-3/8
	3/4	3-1/2	1-3/4	1-3/4	1-1/2	2	2		5-1/4	3/4	1-3/8
	1	3-1/2	1-7/8	1-5/8	2-1/8	2-1/4	2-1/8		5-3/8	3/4	1-3/8
	1-1/4	3-1/2	2	1-1/2	2-1/2	2-1/2	2-3/4		5-1/2	3/4	1-3/8
	1-1/2	3-1/2	2-7/8	1-3/8	2-7/8	2-7/8	3-1/2		6-3/8	3/4	1-3/8
	2	3-1/2	3-1/8	2	2-7/8	2-7/8	3-1/2		6-5/8	3/4	1-3/8
	2-1/2	3-1/2	2-3/4	2-3/8	3-3/4	3-3/4	4-3/8		6-1/4	3/4	1-3/8
	3	3-1/2	3-1/8	2-3/8	4-7/16	4-7/16	5-1/8		6-5/8	3/4	1-3/8
V5011A Flanged, Direct body (Fig. 3)	2-1/2	3-1/2	4-13/16	4	9-1/2	7	2-1/2	3/4	5-1/2	3/4	1-3/8
	3	3-1/2	5-3/8	4-5/8	11	7-1/2	3	3/4	6	3/4	1-3/8
V5011A Flanged, Direct body (Fig. 5)	4	5-1/4	7-9/16	5-3/16	13	9	4	3/4	7-1/2	1-1/2	1-7/8
	5	5-1/4	7	6-1/8	15	10	5	7/8	8-1/2	1-1/2	1-7/8
	6	5-1/4	8	7-1/16	16-1/2	11	6	7/8	9-1/2	1-1/2	1-7/8
V5011B Flanged, Reverse body (Fig. 6)	4	6-3/4	4-11/16	8-1/16	13	9	4	3/4	7-1/2	1-1/2	1-7/8
	5	6-3/4	5-5/8	7-1/2	15	10	5	7/8	8-1/2	1-1/2	1-7/8
	6	6-3/4	6-9/16	8-1/2	16-1/2	11	6	7/8	9-1/2	1-1/2	1-7/8

<sup>a</sup> Dimension A is with the valve closed (stem down for the V5011A and C, stem up for the V5011B).