

## VBN2/VBN3 SERIES – Válvulas Esfera de 2 e 3 Vias



### APLICAÇÕES:

As válvulas esfera de 2 e 3 vias são usadas para controlar o fluxo de água gelada e/ou água quente em sistemas de aquecimento, ventilação e ar condicionado (HVAC). Têm opção de controle tipo ON-OFF, floating ou proporcional dependendo do atuador utilizado. É de fácil instalação e requer atuador de baixo torque, resultando em custos menores.

### ESPECIFICAÇÕES:

**Temperatura de operação:** -30°C a +121°C

**Construção:** Latão forjado

**Conexão:** Rosca Interna, tipo NPT

**Pressão Máxima:** 360 psi (a 121°C)

**Fluxo de Água:** 2 Vias Igual Porcentagem, 3 Vias: De AB para A: Igual Porcentagem; de AB para B: Linear.

**CVs para Válvulas de 2 vias**

Ø	B	D	E	F	G	H	J	K	L	M	N	P	R	S	T	U	1	2	
½"	0,38	0,68	1,30	2,00	2,60	4,70	8,00	11,7											
¾"	0,31	0,63	1,20		2,50	4,30	7,40	10,1	14,7	29									
1"						4,40	9,00		15,3	26,0	44	54							
1 ¼"						4,40	8,30	14,9	25,0	37,0	41			102					
1 ½"									23,0	30,0	41,0		74,0					172	
2"											42,0	57,0	71,0	100	108			210	266
2 ½"											45,0	55,0	72,0	101		162	202		
3"											49,0	63,0	82,0		124	145			

**CVs para Válvulas de 3 vias**

Ø	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S
½"	0,33	0,59		1,00	2,40		4,30	8,00							
¾"		0,40	0,66	1,30	2,40	3,80		7,0	11,0						
1"		0,40	0,65	1,30	2,30	3,50	4,50	8,60	14,9	22,0	31,0				
1 ¼"							4,10	8,7	12,7	19,0	27,0	34,0			
1 ½"							4,00	8,30	13,4	24,0	32,0		61,0		
2"										24,0		38,0	57,0	83,0	109,0
2 ½"												38,0		74,0	100,0

**SELEÇÃO DE MODELOS:**

**VB N 2 A C 3 P 0 X**

**Tipo de Válvula**  
Valve, control Ball

**Conexão**  
N - Fêmea NPT

**Característica do Fluxo**  
2 - 2-vias igual %  
3 - 3-vias igual %

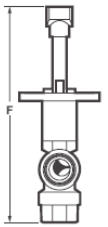
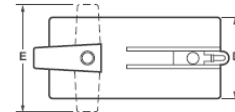
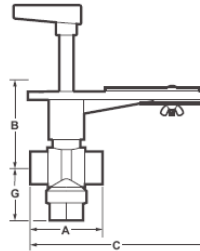
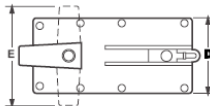
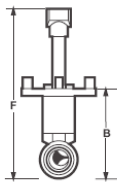
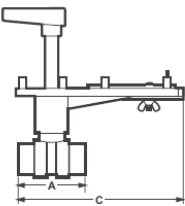
**Diâmetro**  
A - 1/2"      E - 1 1/2"  
B - 3/4"      F - 2"  
C - 1"        G - 2 1/2"  
D - 1 1/4"    H - 3"

**Coefficiente de Vazão - CV\***  
• 0,24 até 266  
\*Vide tabela página 34.

**Tipo de Controle**  
A - On-Off / Floating  
B - Proporcional  
C - ON/OFF Ret. Mola  
D - Proporcional Ret. Mola  
X - Somente Válvula

2 VIAS

3 VIAS



Pipe Size	Model No.	Cv	Dimensions inches (mm)						Weight lb (kg)
			A	B	C	D	E	F	
1/2"	VBN2A	0.38, 0.68, 1.3, 2.0, 2.6, 4.7, 11.7	2-3/8 (60)	3-7/16 (87)	6-5/8 (168)	3 (76)	4 (102)	8-1/8 (206)	1 (0.5)
		8.0	2-5/8 (67)	3-11/16 (94)	6-1/2 (165)	3 (76)	4 (102)	8-5/16 (211)	1 (0.5)
3/4"	VBN2B	0.31, 0.63, 1.2, 2.5, 4.3, 7.4, 14.7	2-3/8 (60)	3-7/16 (87)	6-7/16 (164)	3 (76)	4 (102)	8-1/8 (206)	1 (0.5)
		10.1, 29	2-5/8 (67)	3-11/16 (94)	6-1/2 (165)	3 (76)	4 (102)	8-5/16 (211)	1 (0.5)
1"	VBN2C	9.0	3-3/4 (95)	3-11/16 (94)	7-1/16 (179)	3 (76)	4 (102)	8-5/16 (211)	1 (0.5)
		4.4, 15.3, 54	3 (76)	3-15/16 (100)	6-3/4 (171)	3 (76)	4 (102)	8-11/16 (221)	1.4 (0.6)
		26, 44	4-3/8 (111)	4-7/16 (113)	7-3/8 (187)	3 (76)	4 (102)	8-7/8 (225)	2.4 (1.1)
1-1/4"	VBN2D	4.4, 8.3, 14.9, 25, 41	3 (76)	3-15/16 (100)	6-11/16 (170)	3 (76)	4 (102)	8-11/16 (221)	1.4 (0.6)
		37, 102	3-5/8 (92)	4-7/16 (113)	7 (178)	3 (76)	4 (102)	9-1/16 (231)	2.4 (1.1)
1-1/2"	VBN2E	23, 30, 74	3-3/8 (86)	3-15/16 (100)	6-15/16 (176)	3 (76)	4 (102)	9-1/16 (231)	2.4 (1.1)
		41, 172	3-3/4 (95)	5-3/16 (132)	7-1/16 (179)	3 (76)	4 (102)	8-7/8 (225)	3.2 (1.5)
2"	VBN2F	42, 108	4 (102)	5-3/16 (132)	7-3/16 (183)	3 (76)	4 (102)	8-7/8 (225)	3.2 (1.5)
		57, 71, 100, 210, 266	4-3/8 (111)	5-3/4 (146)	7-7/16 (189)	3 (76)	4 (102)	10-1/2 (267)	5 (2.3)
2-1/2"	VBN2G	45, 55, 72, 101, 162, 202	4-3/4 (121)	5-3/4 (146)	7-9/16 (192)	3 (76)	4 (102)	10-1/2 (267)	5.5 (2.5)
3"	VBN2H	49, 63, 82, 124, 145	5 (127)	5-7/8 (149)	7-11/16 (195)	3 (76)	4 (102)	10-11/16 (271)	5.9 (2.7)

Pipe Size	Model No.	Cv	Dimensions inches (mm)						Weight lb (kg)	
			A	B	C	D	E	F		G
1/2"	VBN3A	0.33, 0.59, 1.0, 2.4, 4.3, 8.0	3-1/2 (90)	3-5/16 (84)	7 (178)	3 (76)	4 (102)	9-3/8 (238)	2-3/8 (60)	2.4 (1.1)
3/4"	VBN3B	0.40, 0.66, 1.3, 2.4, 3.8, 7.0, 11.0	2-13/16 (71)	3-5/16 (84)	6-1/2 (168)	3 (76)	4 (102)	8-13/16 (224)	2 (51)	2 (0.9)
1"	VBN3C	0.40, 0.65, 1.3, 2.3, 3.5	3-13/16 (97)	3-5/16 (84)	7-5/16 (186)	3 (76)	4 (102)	9-1/2 (241)	2-3/4 (70)	2.8 (1.3)
		8.6, 22	3 (76)	3-13/16	6-13/16 (173)	3 (76)	4 (102)	9-13/16 (249)	2-5/8 (67)	2.6 (1.2)
		4.5, 14.9, 31	4-1/2 (114)	4 (102)	7-13/16 (198)	3 (76)	4 (102)	10-13/16 (275)	3-1/4 (83)	3.3 (1.5)
1-1/4"	VBN3D	4.1, 8.7, 19.0	3 (76)	3-13/16	6-13/16 (173)	3 (76)	4 (102)	9-13/16 (249)	2-1/2 (64)	2.5 (1.1)
		12.7, 27, 34	3-5/8 (92)	4 (102)	7-5/16 (186)	3 (76)	4 (102)	10-5/16 (262)	2-3/4 (70)	2.8 (1.3)
1-1/2"	VBN3E	4.0, 8.3, 13.4, 32	4-1/2 (114)	4 (102)	7-13/16 (198)	3 (76)	4 (102)	10-13/16 (275)	3-1/4 (83)	3.3 (1.5)
		24, 61	4 (102)	4-1/2 (114)	7-5/16 (186)	3 (76)	4 (102)	11 (279)	3-1/4 (83)	3.3 (1.5)
2"	VBN3F	24, 38, 57	4 (102)	4-1/2 (114)	7-5/16 (186)	3 (76)	4 (102)	11 (279)	3-1/4 (83)	3.3 (1.5)
		83, 109	5 (127)	5-13/16	7-13/16 (198)	3 (76)	4 (102)	12-5/16 (313)	3-3/4 (95)	3.8 (1.7)
2-1/2"	VBN3G	38, 74, 100	5 (127)	5-13/16	7-13/16 (198)	3 (76)	4 (102)	12-5/16 (313)	3-3/4 (95)	3.8 (1.7)