

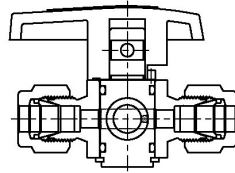
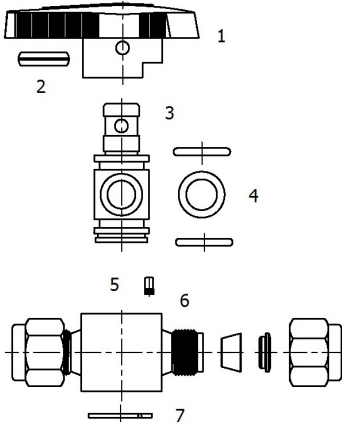
VP3 Series Plug Valves

Working Pressure: 3000 psig (206 bar)
Stainless Steel, Brass Construction

Catalog Number: VP3-2
December 2014

Features

- One-piece body design with straight through flow path.
- Quarter-turn actuation.
- Forward-flow throttling capability.
- Provides positive shutoff of forward flow.

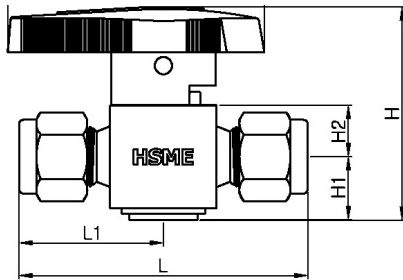


Materials of Construction

Components	Valve Body Materials	
	SS316	Brass
Grade/ASTM Standard		
1 Handle	Polyetherimide	
2 Handle Pin	SS316	
3 Plug	PTFE-coated SS316 /A479, A276	PTFE-coated Brass C3604 / JIS H3250
4 O-rings (3)	PTFE-coated FKM	
5 Stop Pin	SS316	
6 Body	SS316 / A479 or A276	Brass C3604 /JIS H3250
7 Snap ring	Stainless Steel	

Lubricant: Silicon-based
Wetted components listed in **BOLD** letters.

Ordering Information and Dimensions



Complete Ordering Number	End Connections		Dimensions, mm (in.)						
	Inlet	Outlet	L	L1	H	H1	H2	W	D
VP3A-	A2T-SS	1/8 in. M Tube Fitting	50.5 (1.99)	19.8 (.78)	38.6 (1.52)	11.7 (.46)	9.4 (.37)	19.1 (.75)	47.8 (1.88)
	A4T-SS	1/4 in. M Tube Fitting	55.1 (2.17)						
	A6T-SS	3/8 in. M Tube Fitting	58.2 (2.29)						
	A6M-SS	6mm M Tube Fitting	55.1 (2.17)						
	F2N-SS	1/8 in. Female NPT	45.2 (1.78)						
	F4N-SS	1/4 in. Female NPT	53.1 (2.09)						
	M2N-SS	1/8 in. Male NPT	38.9 (1.53)						
	M4N-SS	1/4 in. Male NPT	48.3 (1.90)						
	MA4N4T-SS	1/4 in. Male NPT 1/4 in. M Tube Fitting	51.2 (2.03)						
	MF4N-SS	1/4 in. Male NPT 1/4 in. Female NPT	50.8 (2.00)						
VP3B-	A6T-SS	3/8 in. M Tube Fitting	67.6 (2.66)	29 (1.14)	54.1 (2.13)	16.8 (.66)	14.2 (.56)	28.4 (1.12)	63.2 (2.49)
	A8T-SS	1/2 in. M Tube Fitting	73.2 (2.88)						
	A8M-SS	8mm M Tube Fitting	67.6 (2.66)						
	A10M-SS	10mm M Tube Fitting	68.1 (2.68)						
	A12M-SS	12mm M Tube Fitting	75.2 (2.96)						
	F6N-SS	3/8 in. Female NPT	60.5 (2.38)						
	F8N-SS	1/2 in. Female NPT	73.2 (2.88)						
	M8N-SS	1/2 in. Male NPT	67.1 (2.64)						

Dimensions shown are reference only, subject to change.

How to order

To order stainless steel valve, select an applicable complete ordering number. Example: VP3A-A2T-SS
To order brass valve, replace "SS" with "B" in the ordering number. Example: VP3A-A2T-B

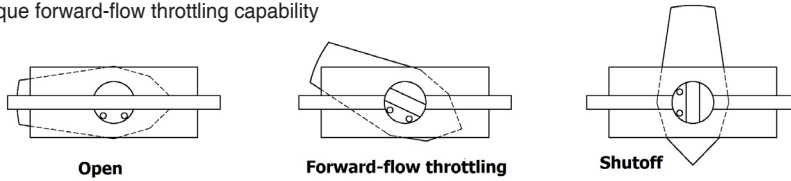
Pressure-Temperature Ratings

Ratings are taken based on PTFE-coated FKM O-rings.

Valve Series	VP3A, VP3B	VP3A	VP3B
Material	316 SS Brass		
Temperature, F°(C°)	Working Pressure, psig (bar)		
-10 to 100 (-23 to 37)	3000 (206)	3000 (206)	2000 (137)
150 (65)	3000 (206)	3000 (206)	2000 (137)
200 (93)	3000 (206)	2000 (137)	2000 (137)
250 (121)	2000 (137)	1500 (103)	1500 (103)
300 (148)	1000 (68.9)	1000 (68.9)	1000 (68.9)
350 (176)	1000 (68.9)	1000 (68.9)	1000 (68.9)
400 (204)	1000 (68.9)	400 (27.5)	400 (27.5)

Operation

- Differential pressure is limited to 150 psig (10.3 bar) maximum if reverse flow occurs.
- Reverse flow throttling may damage O-ring.
- Unique forward-flow throttling capability



Flow Data

Valve Series, End Connections	Cv	Pressure Drop to Atmosphere, psi (bar)						
		1 (0.068)			5 (0.34)			
		10 (0.68)			1 (0.068)			
		Water Flow, US gal/min(L/min)			Air Flow, std ft ³ /min (L/min)			
		@ 70F° (21C°)						
VP3A-	A2T-	0.1	0.1 (0.37)	0.2 (0.75)	0.3 (1.1)	0.3 (8.4)	0.8 (22)	1.1 (31)
	A4T-	1.6	1.6 (6.0)	3.6 (13)	5.1 (19)	6.0 (160)	13 (360)	18 (500)
	A6T-	1.1	1.1 (4.1)	2.5 (9.4)	3.5 (13)	4.1 (110)	8.9 (250)	12 (330)
	A6M-	1.6	1.6 (6.0)	3.6 (13)	5.1 (19)	6.0 (160)	13 (360)	18 (500)
	F2N-	0.9	0.9 (3.4)	2.0 (7.5)	2.8 (10)	3.3 (93)	7.3 (200)	10 (280)
	F4N-	1.2	1.2 (4.5)	2.7 (10)	3.8 (14)	4.4 (120)	9.7 (270)	13 (360)
	M2N-	1.0	1.0 (3.7)	2.2 (8.3)	3.2 (12)	3.7 (100)	8.1 (220)	11 (310)
	M4N-							
	MF4N-	1.0	1.0 (3.7)	2.2 (8.3)	3.2 (12)	3.7 (100)	8.1 (220)	11 (310)
MA4N4T-	0.9	0.9 (3.4)	2.0 (7.5)	2.8 (10)	3.3 (93)	7.3 (200)	10.1 (280)	
VP3B-	A6T-	4.4	4.4 (16)	9.8 (37)	13 (49)	16 (450)	35 (990)	49 (1380)
	A8T-	6.4	6.4 (24)	14 (52)	20 (75)	23 (650)	52 (1470)	72 (2030)
	A8M-	6.4	6.4 (24)	14 (52)	20 (75)	23 (650)	52 (1470)	72 (2030)
	A10M-							
	A12M-	4.8	4.8 (18)	10 (37)	15 (56)	17 (480)	39 (1100)	54 (1520)
	F6N-	2.7	2.7 (10)	6 (22)	8.5 (32)	10 (280)	21 (590)	30 (840)
	F8N-	4.3	4.3 (16)	9.6 (36)	13 (49)	16 (450)	34 (960)	48 (1350)
	M8N-	2.4	2.4 (9.0)	5.4 (20)	7.6 (28)	9.0 (250)	19 (530)	27 (760)

Plug Valve Orifice

VP3A Series: 4.4mm (0.17 in.)
VP3B Series: 7.2mm (0.28 in.)

Factory Test

Every valve is factory tested for shutoff at 600 psig (41.3 bar).

Optional O-ring

Seal Material	Designator	Temperature Rating, °C (°F)
PTFE-coated NBR	BNT	-23 to 120 (-9 to 248)
PTFE-coated EPDM	EPT	-40 to 140 (-40 to 284)
PTFE-coated NEOPRENE	CRT	-23 to 148 (-9 to 298)

PTFE-coated FKM is standard.

To order valve with an optional O-ring material, add the applicable designator in the complete ordering number.

Example: VP3A-A2T-BNT-SS

Safe Valve Selection

The selection of a valve for any application or system must be considered to ensure safe performance. Valve rating, valve function, material compatibility, proper installation, operation and maintenance remain the sole responsibility of the system designer and the user. HSME Corporation accepts no liability for any improper selection, compatibility, installation, operation or maintenance.