

# INSTRUMENT

## Plug Valve VP3



# Plug Valve VP3

## CONTENTS

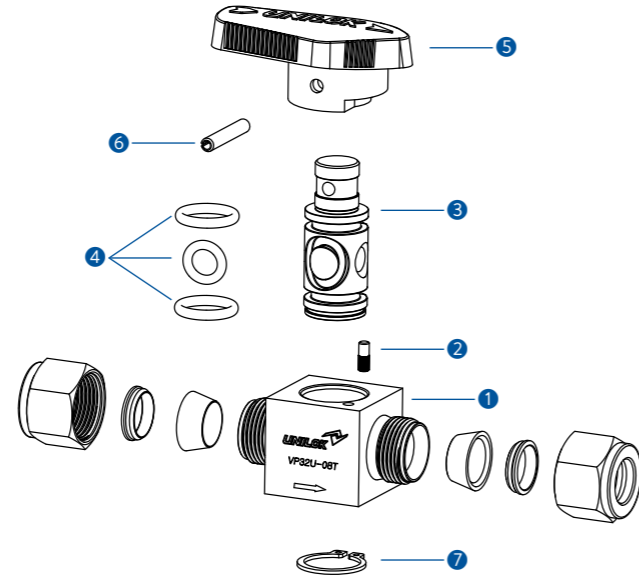
<b>Features</b> .....	<b>228</b>	<b>Cleaning</b> .....	<b>229</b>
<b>Materials of Construction</b> .....	<b>228</b>	<b>Testing</b> .....	<b>229</b>
<b>Pressure Tempering Rating</b> .....	<b>228</b>	<b>How To Order</b> .....	<b>229</b>
<b>Flow Data</b> .....	<b>229</b>	<b>Ordering Information &amp; Dimensions</b> .....	<b>230</b>
<b>Technical Data</b> .....	<b>229</b>		

## Features

- Working Pressure Rating up to 3000 psig (206 bar) @37°C(100°F)
- Temperature Rating from -23°C to 204°C (-10°F to 400°F)
- Quarter-turn operation
- Straight-through flow path
- 316 stainless steel and brass body materials
- Reliable simple design
- Handle Low operating torques
- 100% factor tested

## Materials of Construction

No.	Description	Materials
	<b>Body Material</b>	<b>316SS</b>
1	Body	316SS
2	Pin	316SS
3	Plug	316SS
4	O-Ring	PTFE Coated FKM
5	Handle	Nylon
6	Spring Pin	316SS
7	Snap Ring	Stainless Steel



## Pressure Temperature Rating

Series	VP31, VP32	VP31	VP32
<b>Material</b>	316 SS	Brass	
	PTFE Coated FKM		
<b>Temperature, °C (°F)</b>	<b>Working Pressure, psig (bar)</b>		
-23°C ~ 204°C (-10°F ~400°F)	3,000 psig (206 bar)	3,000 psig (206 bar)	2,000 psig (137 bar)
65°C (150°F)	3,000 psig (206 bar)	2,500 psig (172 bar)	2,000 psig (137 bar)
93°C (200°F)	3,000 psig (206 bar)	2,000 psig (137 bar)	2,000 psig (137 bar)
121°C (250°F)	2,000 psig (137 bar)	1,500 psig (103 bar)	1,500 psig (103 bar)
148°C (300°F)	1,000 psig (68.9 bar)	1,000 psig (68.9 bar)	1,000 psig (68.9 bar)
204°C (400°F)	1,000 psig (68.9 bar)	400 psig (27.5 bar)	400 psig (27.5 bar)

## Flow Data

Part No.	End Connections	CV	Pressure Drop to Atmosphere, psi (bar)						
			Air Flow, std ft <sup>3</sup> /min (std L/min) @ 70°F (21°C)			Water Flow, US gal/min (std L/min) @ 70°F (21°C)			
			1 (0.068)	5 (0.34)	10 (0.68)	1 (0.068)	5 (0.34)	10 (0.68)	
VP31	U-02T-	1/8" UNILOK	0.1	0.3 (8.4)	0.8 (22)	1.1 (31)	0.1 (8.4)	0.2 (0.75)	0.3 (1.1)
	U-04T-	1/4" UNILOK	1.6	0.6 (165)	13.0 (362)	18.0 (500)	1.6 (6.2)	3.6 (13.5)	5.1 (19.2)
	M-02N-	1/8" Male NPT	1.0	3.7 (102)	81.0 (225)	11.0 (315)	1.0 (3.7)	2.2 (8.5)	3.2 (12.1)
	M-04N-	1/4" Male NPT	1.0						
	F-02N-	1/8" Female NPT	1.2	4.4 (120)	9.7 (272)	13.0 (370)	1.2 (4.5)	2.7 (10.2)	3.8 (14.2)
	F-04N-	1/4" Female NPT	0.9	3.3 (93)	7.3 (205)	10.0 (285)	0.9 (3.4)	2.0 (7.5)	2.8 (10.4)
VP32	U-06T-	3/8" UNILOK	6.4	23.0 (660)	52.0 (1470)	72.0 (2040)	6.4 (24)	14.0 (53)	20.0 (76)
	U-08T-	1/2" UNILOK	4.4	16.0 (460)	35.0 (1000)	49.0 (1390)	4.4 (16.5)	9.8 (37)	13.0 (50)
	M-08N-	1/2 Male NPT	2.4	9.0 (252)	19.0 (540)	27.0 (765)	2.4 (9.0)	5.4 (20)	7.6 (28.5)
	F-08N-	1/2" Female NPT	2.7	10.0 (285)	21.0 (600)	30.0 (850)	2.7 (10)	6.0 (22)	8.5 (32)

## Technical Data

Series	Material	Orifice	Pressure Rating @ 70°F (21°C)	Temperature Rating
VP31	316 SS	4.4	3,000 psig (206 bar)	-23°C ~ 204°C (-10°F ~ 400°F)
	Brass			
VP32	316 SS	7.2	3,000 psig (206 bar)	
	Brass		2,000 psig (137 bar)	

\* Differential pressure is limited to 150 psig (10.3 bar) Maximum if reverse flow occurs Reverse-flow throttling may damage O-ring.

## Cleaning

UNILOK valves are free from machine oils, loose particles and grease throughout the close cleaning process.

## Testing

Every plug valve is 100% factory tested for shutoff at 600 psig (41.3 bar)

## How To Order

UNILOK VP3 series Plug valves are ordered by part number as shown below.



Valve Type	
P31	Plug Valve (4.4mm Orifice)
P32	Plug Valve (7.2mm Orifice)

Connection Type	
U	UNILOK Tube Fitting
F	Female NPT or ISO7/1(PT)
M	Male NPT or ISO7/1(PT)

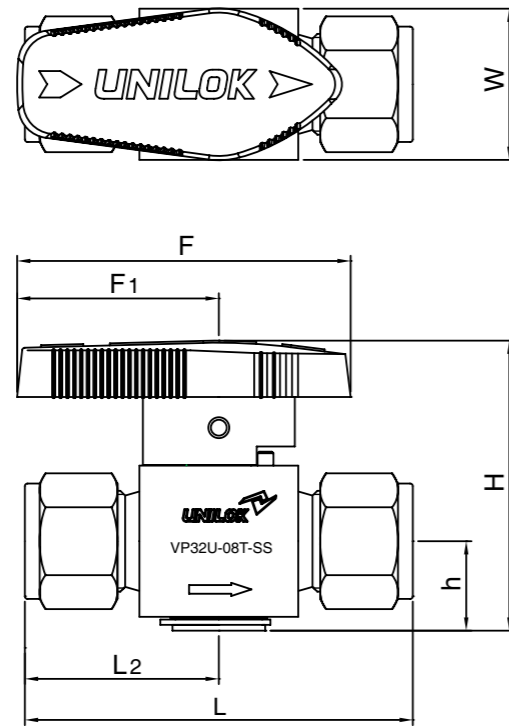
Connection Size					
Fractional(Inch) Tube O.D. Designation					
Tube O.D.	inch	1/8	1/4	3/8	1/2
	mm	3.17	6.35	9.52	12.70
Designator		02T	04T	06T	08T

Metric Tube O.D. Designation					
Tube O.D.	mm	6	8	10	12
Designator		M06T	M08T	M10T	M12T

Pipe Size Designation (NPT or ISO7/1-PT)				
Pipe Size	1/2	1/4	3/8	1/2
Designator	02N/R	04N/R	06N/R	08N/R

Body Materials	
SS	316 SS
BS	Brass

O-ring Materials	
None	PTFE Coated FKM



## Ordering Information & Dimensions

Part No.	End Connections		Dimensions (mm)								
	Inlet	Outlet	Orifice	L	L1	h	H	F	F1	W	
VP31	U-02T-	1/8" UNILOK		4.4	50.6	25.3	11.5	39.2	46.5	29.0	19.0
	U-04T-	1/4" UNILOK			55.0	27.5					
	U-M06T-	6mm UNILOK			38.8	19.4					
	M-02N-	1/8" Male NPT			48.4	24.2					
	M-04N-	1/4" Male NPT			45.2	22.6					
	F-02N-	1/8" Female NPT			53.0	26.5					
	F-04N-	1/4" Female NPT			51.7	24.2					
	MU-04N04T-	1/4" Male NPT	1/4" UNILOK		50.7	24.2					
	MF-04N-	1/4" Male NPT	1/4" Female NPT								
VP32	U-06T-	3/8" UNILOK		7.2	67.6	33.8	16.9	54.4	61.3	38.1	28.5
	U-08T-	1/2" UNILOK			73.2	36.6					
	U-M08T-	8mm UNILOK			67.6	33.8					
	U-M10T-	10mm UNILOK			68.0	34.0					
	U-M12T-	12mm UNILOK			75.2	37.6					
	M-08N-	1/2" Male NPT			67.0	33.5					
	F-08N-	1/2" Female NPT			73.2	36.6					

ISO 7/1 Tapered Threads[PT] are available for all fractional sizes of VP3 series valves.

Add "R" as a suffix instead of "N".

Dimensions are for reference only and are subject to change without prior notice.