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Contents

In-Line Mounted Plug Valves

Series 300PTFE Plug, 2, 3 and 4-Way F2 - F3

Series 700Metal Plug, 2, 3 and 4-Way F2 - F3

Series 744PTFE Plug, Cylindrical, 4-WayF4

F

General Description

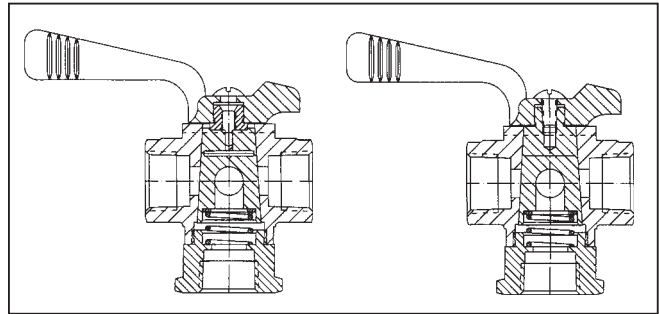
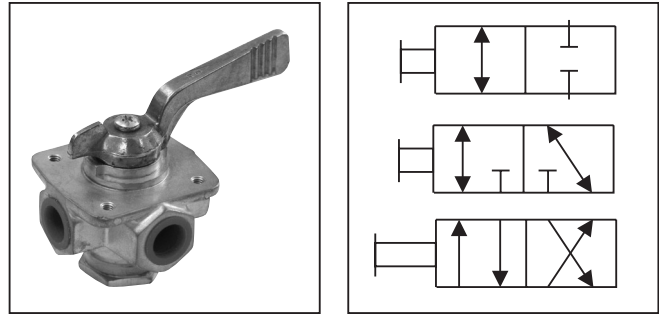
Series 300 and 700 are 2, 3, and 4-way plug valves which can handle a variety of media. Series 300 contains a self-lubricating PTFE plug. Series 700 features a metal plug which requires lubrication. The different valve configurations allow for shut off or the selection of a particular flow pattern.

Features

- PTFE plug design requires no lubrication and is ideal for sampling applications.
- Wide selection of flow patterns available.
- Metal plug available with a wide range of lubricants for most applications.

Specifications

Service App.	Liquid and air	
Pressure Range	Liquid: 6.2 Bar (90 PSI)	Air: 3.5 Bar (50 PSI)
Internal Leakage	Liquid: Zero	Air: 1 bubble in 4 seconds at 3.5 Bar (50 PSI)
Sizes	See chart	
Ports	NPT Pipe threads	FLD Flared Tube Connection SAE 37°
Mounting	Flanged	
Material	Series 300: Body Plug Spring Handle	Brass, aluminum alloy, stainless steel Stainless steel impregnated PTFE Stainless steel Die cast aluminum alloy
	Series 700: Body Spring Handle	Brass with brass plug; aluminum alloy with stainless steel plug; stainless steel with stainless steel plug Stainless Steel Die cast aluminum
Temperature Range	Series 300: Non-operating: Operating:	-40°C to +121°C (-40°F to +250°F) -18°C to 71°C (0°F to +160°F)
	Series 700:	0°C to +71°C (32°F to +160°F)



CV Factor

Size and Dash No.		1/8 4	1/4 6	3/8 8	1/2 10	3/4 12
Max.	Alum. Alloy	.13	.25	.50	.62	.75
Weight	Brass	.25	.43	1.00	1.50	1.75
Lbs.	Stainless Steel	.37	.75	1.25	1.62	1.87
CV Factor	Inline	1.00	2.00	5.00	9.00	16.00
	Angle	.60	1.00	2.70	5.00	8.60

NOTE:

Each plug and body assembly is individually ground and lapped for perfect fit. Plugs and bodies are not replaceable or interchangeable in the field. Most plug valves, other than 2-way, have port interflow when turning handle. If interflow is a problem, consult our technical department.

Ordering Information

310-3

Catalog Number	Type	Number of Ports	Type Porting			Sizes and Materials	Handle Turns	Flow Patterns
			A	B	C			
310-3 or 710-3	Flanged Inline	3	NPT	-	-	1/4B	90°	
310-6 or 710-6	Flanged Inline	4	NPT	-	-	1/4B	90°	
311-421 or 711-421	Flanged Inline Plus Bottom Port	4 + Bottom	NPT	-	NPT	1/4B	360°	
313-23	Flanged Inline Plus Bottom Port	2 + Bottom	NPT	-	NPT	3/4B	90°	
320HTX	Flanged Inline	2	FLD	FLD	-	8SS	90°	

-1/4

Size

See Available Sizes from Chart

B

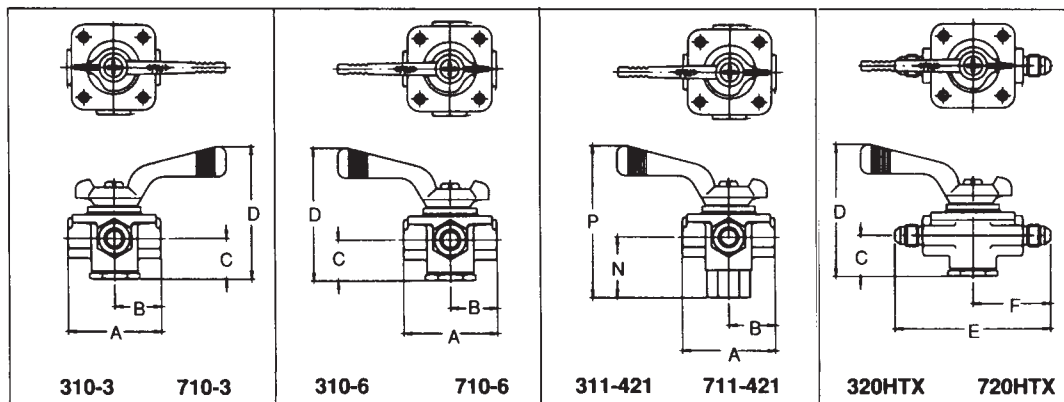
Materials

B
Brass

D
Aluminum Alloy

SS
Stainless Steel

Dimensions



F

All Dimensions are in Inches															
Tube Size	Pipe Size	A	B	C	D	E	F	G	H	J	K	L	M	N	P
4	1/8"	1-7/16	23/32	47/64	2-9/32	2-5/8	1-5/16	1-13/16	.884	.687	6-32	3/16	11/32	1-1/16	2-39/64
6	1/4"	1-7/8	15/16	13/16	2-41/64	3-1/8	1-9/16	2-1/4	1.193	.937	10-32	3/16	7/16	1-13/64	3-1/32
8	3/8"	2-1/4	1-1/8	1-3/64	3-3/16	3-5/8	1-13/16	2-11/16	1.458	1.187	10-32	9/32	9/16	1-15/32	3-39/64
10	1/2"	2-1/2	1-1/4	1-9/64	3-15/32	4-1/4	2-1/8	3-1/8	1.724	1.406	1/4-28	1/4	5/8	1-23/32	4-3/64
12	3/4"	2-15/16	1-15/32	1-21/64	3-31/32	4-9/16	2-9/32	3-9/16	1.856	1.625	1/4-28	1/4	3/4	1-31/32	4-39/64

Service Note: Valves taken from stock, or valves not used for some time, may be hard to turn. This condition is due to drying out of the lubricant. The plug may be loosened by squeezing the valve carefully in a vise, pressing against the center screw in the handle. Turning the handle several times will free-up the plug. If necessary, disassemble the valve, wash off all the old lubricant, and re-lubricate the valve using only a small quantity of the proper lubricant.

CAUTION – DO NOT USE ANY OF THE ABOVE IN LIQUID OXYGEN SYSTEMS.

General Description

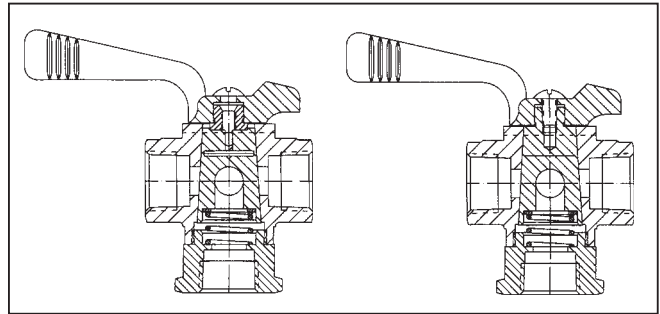
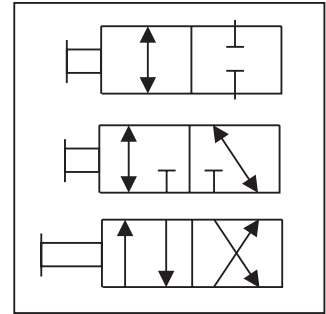
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- Wide selection of flow patterns available.
- Metal plug available with a wide range of lubricants for most applications.

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Pressure Range	Liquid: 6.2 Bar (90 PSI)	Air: 3.5 Bar (50 PSI)
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-1/4

Size

See Available Sizes from Chart

B

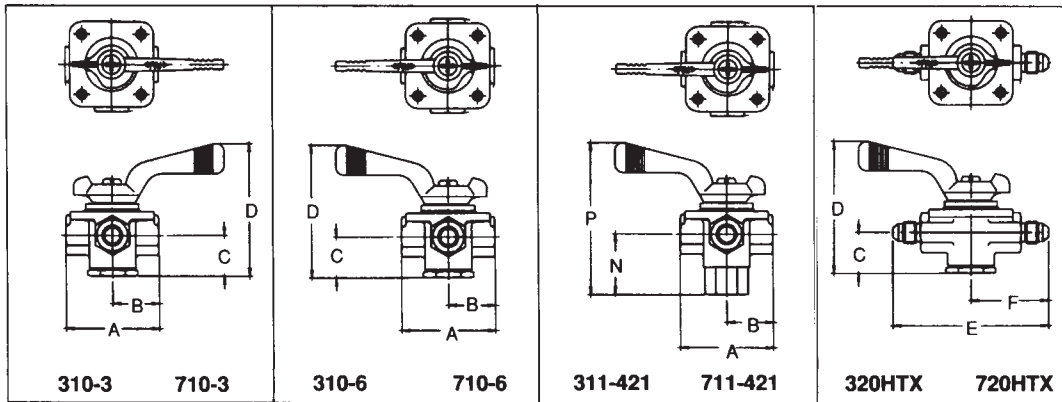
Materials

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Brass

D
Aluminum Alloy

SS
Stainless Steel

Dimensions



F

All Dimensions are in Inches															
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6	1/4"	1-7/8	15/16	13/16	2-41/64	3-1/8	1-9/16	2-1/4	1.193	.937	10-32	3/16	7/16	1-13/64	3-1/32
8	3/8"	2-1/4	1-1/8	1-3/64	3-3/16	3-5/8	1-13/16	2-11/16	1.458	1.187	10-32	9/32	9/16	1-15/32	3-39/64
10	1/2"	2-1/2	1-1/4	1-9/64	3-15/32	4-1/4	2-1/8	3-1/8	1.724	1.406	1/4-28	1/4	5/8	1-23/32	4-3/64
12	3/4"	2-15/16	1-15/32	1-21/64	3-31/32	4-9/16	2-9/32	3-9/16	1.856	1.625	1/4-28	1/4	3/4	1-31/32	4-39/64

Service Note: Valves taken from stock, or valves not used for some time, may be hard to turn. This condition is due to drying out of the lubricant. The plug may be loosened by squeezing the valve carefully in a vise, pressing against the center screw in the handle. Turning the handle several times will free-up the plug. If necessary, disassemble the valve, wash off all the old lubricant, and re-lubricate the valve using only a small quantity of the proper lubricant.

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General Description

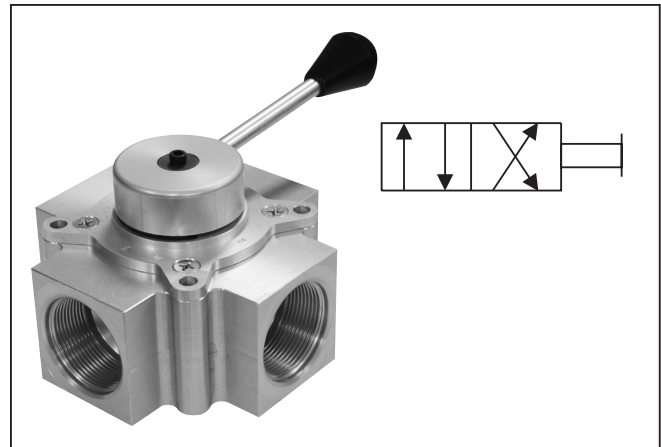
Series 744 4-way plug valves can handle a variety of media. The valve design requires low actuation torque and has a very low pressure drop. Series 744 contains a self-lubricating PTFE plug. The valve construction is compact and shifting the flow direction of the valve will not deadhead the pump.

Features

- Features high flow with low pressure drop.
- Compact construction.
- 17.3 Bar (250 PSI) service.
- No lubrication necessary.
- Low turning torque.

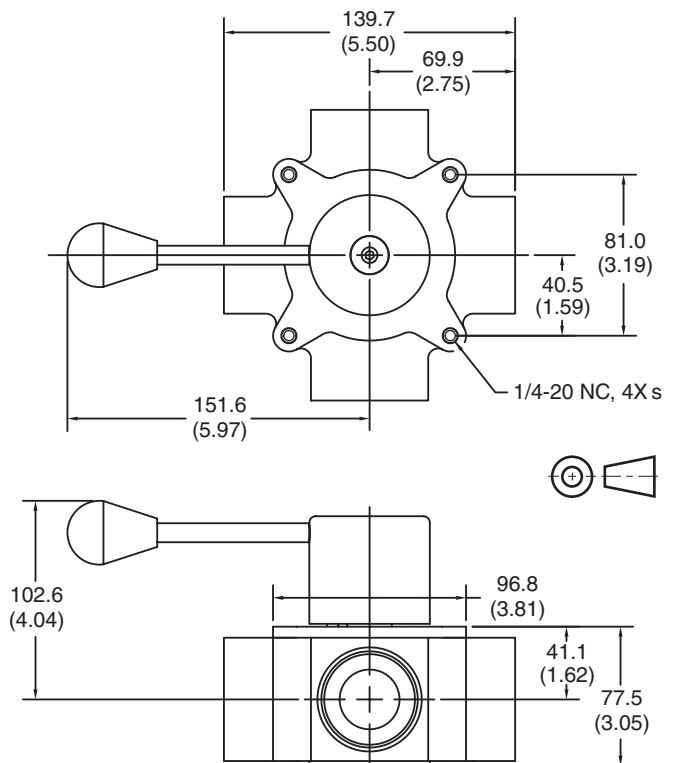
Specifications

Service Applications	Hydraulic or pneumatic; available for other service on special order	
Pressure Range	Liquid: 17.3 Bar (250 PSI)	Air: 20 in hg. vacuum to 17.3 Bar (250 PSI)
	Proof: 20.7 Bar (300 PSI)	
Internal Leakage	Liquid: 2 DPM maximum	Air: 14 bubbles per minute
Sizes	NPT 1 1/4", 1 1/2"	IST 20, 24
Ports	NPT Pipe threads	IST Internal straight threads
CV Factor	1 1/4, 20 = 30	1 1/2, 24 = 32
Mounting	Panel hole diameter 2 9/16"; maximum thickness 1/2"; four 1/4-20UNC-3B tapped holes; top cover plate drilled for bolt clearance	
Material	Body Aluminum alloy	Bearings Delrin
	Port Seals PTFE	O-rings Synthetic rubber
Temperature Range	-40°C to +107°C (-40°F to +225°F) Higher temperatures on special order	

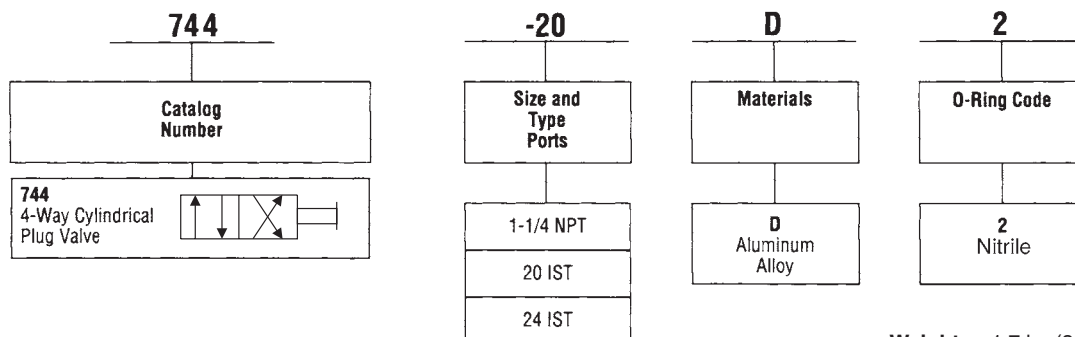


Dimensions

Inch equivalents for millimeter dimensions are shown in (**)



Ordering Information



3000-F1.p65, dd

Weight: 1.7 kg (3.7 lbs.)