



# Check Valves

## ICH SERIES



## ICH SERIES

- Maximum Working Pressure : 6000 psig (413 bar) @ 100°F (37°C)
- Cracking Pressure : 1/3 psig (0.03 bar) to @ 25 psig (1.80 bar)
- Working Temperature Range : -10°F(-23°C) to 375°F(190°C)



## Features

- Stainless Steel Construction
- Poppet design
- In-line pattern
- Variety of end connection

## Technical Data

### Temperature - Working Pressure Rating

Series	ICH1	ICH2	ICH3
Temperature, °F (°C)	Working Pressure, psig (bar)		
-10 (-23) to 100 (37)	6000 (413)		5000 (344)
-10 (-23) to 200 (93)	5160 (355)		4290 (295)
-10 (-23) to 250 (121)	4910 (338)		4080 (281)
-10 (-23) to 300 (148)	4660 (321)		3875 (266)
-10 (-23) to 375 (190)	4280 (294)		3560 (245)

### Cracking and Reseal Pressures at 70°F (20°C)

	Nominal Cracking Pressure psi (bar)	Cracking Pressure Range psi (bar)	Reseal Pressure psi (bar)
Cracking Pressure psi (bar)	1/3 (0.03)	Up to 3 (0.21)	Up to 6 (0.42) back pressure
	1 (0.07)	Up to 4 (0.28)	Up to 5 (0.35) back pressure
	5 (0.35)	3 to 9 (0.21 to 0.63)	Up to 2 (0.14) back pressure
	10 (0.69)	7 to 15 (0.49 to 1.1)	3 (0.21) or more upstream pressure
	25 (1.80)	20 to 30 (1.4 to 2.1)	17 (1.2) or more upstream pressure
Seal Material	Fluorocarbon FKM		

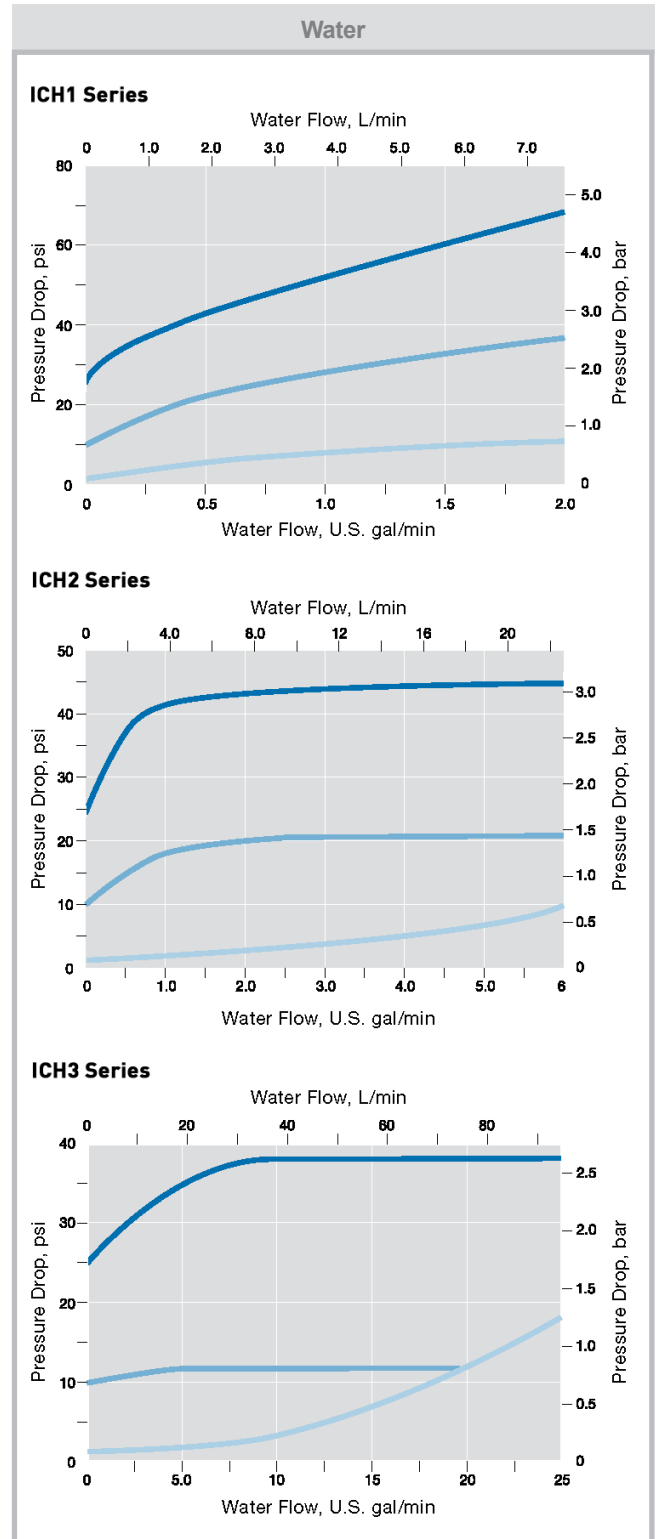
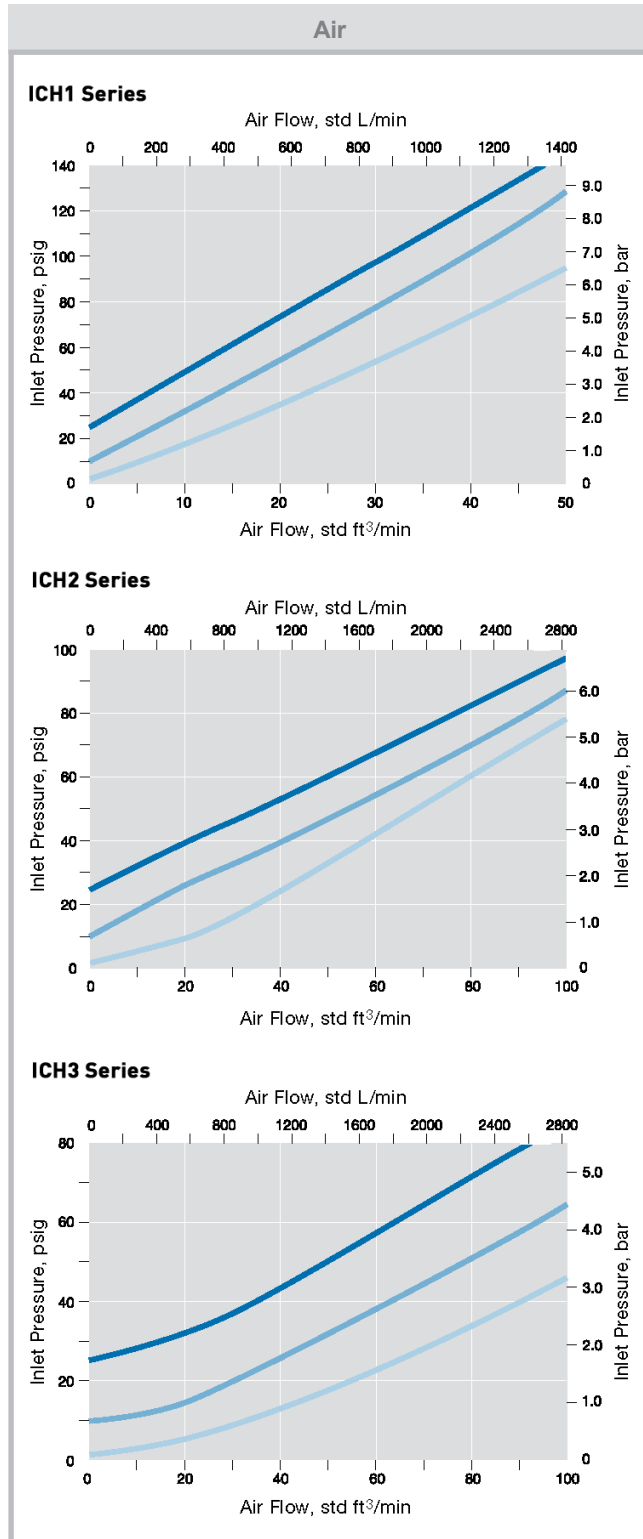
#### Caution :

For valves not actuated for a period of time, initial cracking pressure may be higher than the set cracking pressure.

## Flow Data at 70°F (20°C)

### ICH Series

Nominal Cracking Pressures — 1 psi (0.07 bar) — 10 psi (0.69 bar) — 25 psi (1.8 bar)



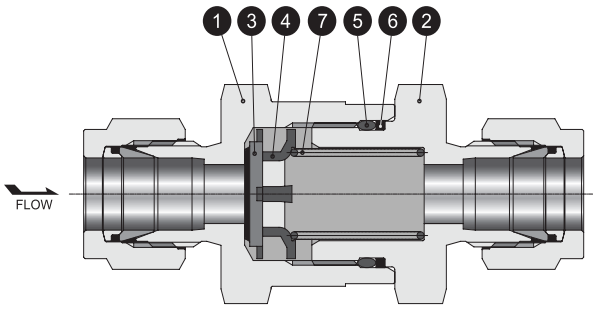
### Testing

- Every valve is factory tested for cracking and reseal performance.

### Cleaning and Packaging

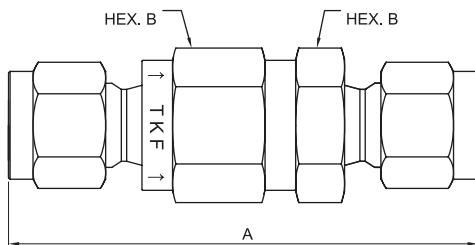
- Every valve is cleaned and packaged in accordance with the standard specification of cleaning and packaging.

## Materials of Construction

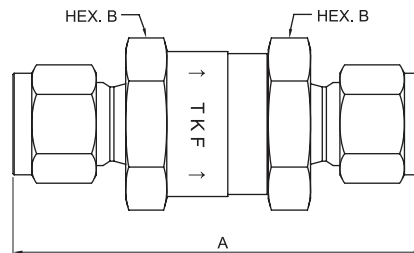


No.	Description	Material
		Material Grade / ASTM Specification
1	Inlet Body	316 SS/A479
2	Outlet Body	316 SS/A479
3	Poppet Assembly	FKM-bonded 316 SS/A479
4	Poppet Stoper	316 SS/A276
5	O-Ring	Fluorocarbon FKM
6	Backup Ring	PTFE
7	Spring	316 SS

## Dimensions



ICH1 SERIES

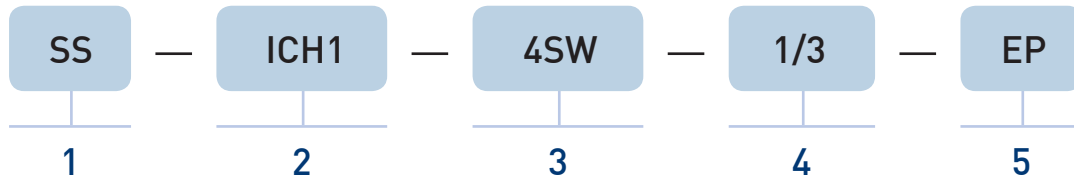


ICH2 / ICH3 SERIES

Order Number		Orifice in. (mm)	Cv	End Connections		Pressure Rating psig (bar)	Dimensions in. (mm)					
Series	Part No.			Inlet	Outlet		A	B				
ICH1	2SW	0.189 (4.8)	0.67	1/8" Lok		6000 (413)	2.27 (57.7)	11/16(17.5)				
	4SW			1/4" Lok								
	6MSW			6mm Lok								
	4NF			1/4" Female NPT								
	2NM			1/8" Male NPT								
	4NM			1/4" Male NPT								
	4PTF			1/4" Female ISO <sup>①</sup> Tapered								
	4PTM			1/4" Male ISO <sup>①</sup> Tapered								
	4VM			1/4" MFS <sup>①</sup> Male								
	4VVM			1/4" MFS <sup>①</sup> Male								
ICH2	6SW	0.307 (7.8)	1.8	3/8" Lok		6000 (413)	2.75 (69.9)	1(25.4)				
	8SW			1/2" Lok								
	8MSW			8mm Lok								
	10MSW			10mm Lok								
	12MSW			12mm Lok								
	6NF			3/8" Female NPT								
	8NF			1/2" Female NPT		4600 (316)	3.03 (77.0)					
	6PTM			3/8" Male NPT		6000 (413)	2.36 (59.9)					
	8PTM			1/2" Male NPT			2.73 (69.3)					
	8PTF			1/2" Female ISO <sup>①</sup> Tapered		4600 (316)	3.29 (83.6)		1 1/16(27)			
	8PTM			1/2" Male ISO <sup>①</sup> Tapered		6000 (413)	2.73 (69.3)		1(25.4)			
	8VM			1/2" MFS Male		3500 (241)	2.73 (69.3)					
	ICH3			12SW	0.591 (15.0)	4.7	3/4" Lok		5000 (344)	3.52 (89.4)	1 5/8(41.3)	
				16SW			1" Lok		4700 (323)	3.88 (98.6)		
22MSW		22mm Lok		5000 (344)			3.48 (88.4)					
25MSW		25mm Lok					3.88 (98.6)					
12NF		3/4" Female NPT		4300 (296)			3.23 (82.0)					
16NF		1" Female NPT		4100 (282)			3.83 (97.3)					
12NM		3/4" Male NPT		5000 (344)			3.29 (83.6)					
16NM		1" Male NPT					3.67 (93.2)					
12PTF		3/4" Female ISO <sup>①</sup> Tapered		4300 (296)			3.55 (90.2)					
16PTF		1" Female ISO <sup>①</sup> Tapered		4100 (282)			3.83 (97.3)					
12PTM		3/4" Male ISO <sup>①</sup> Tapered		5000 (344)			3.35 (85.1)					
16PTM		1" Male ISO <sup>①</sup> Tapered					3.67 (93.2)					
12VM		3/4" MFS Male		3000 (206)			3.78 (96.0)					

<sup>①</sup> Refer to specifications ISO 7/1, BS EN 10226-1, DIN-2999, and JIS B0203.

## Ordering Information



### 1. Body Material

Material	Designator
316SS	SS

### 2. Valve Series

Orifice Size	Designator
4.8mm	ICH1
7.9mm	ICH2
15mm	ICH3

\* The Orifice Size is determined using valves with TKSCT tube fitting end connections.

\* For more details, See the Dimensions Table.

### 3. Inlet/Outlet Connection Size & Type

Inlet/Outlet Connection Size	Designator
1/4"	2
1/8"	4
3/8"	6
1/2"	8
6mm	6M
8mm	8M
10mm	10M
12mm	12M

### 4. Cracking Pressure

Cracking Pressure	Designator
1/3 psi	1/3
1 psi	1
5 psi	5
10 psi	10
25 psi	25

Inlet/Outlet Connection Type	Designator
Lok	SW
Male NPT	NM
Female NPT	NF
Male ISO <sup>①</sup> Tapered	PTM
Female ISO <sup>①</sup> Tapered	PTF
MFS Male	VM

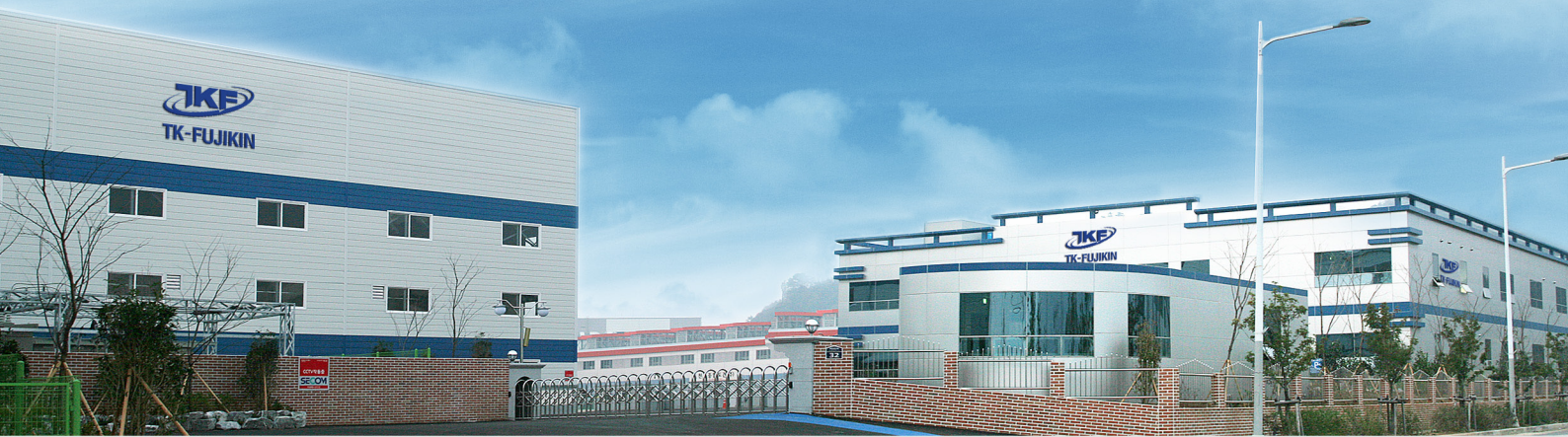
### 5. O-Ring Material

O-Ring Material	Designator
Fluorocarbon FKM (Standard)	Blank
Buna N	BN
Ethylene Propylene	EP
Neoprene	NE

<sup>①</sup> Refer to specifications ISO 7/1, BS EN 10226-1, DIN-2999, and JIS B0203.



# CHECK VALVES



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