Low Pressure Medium Flow Check Valves
CHP Series



Introduction

CH P Series Low Pressure Medium Flow Check Valves are designed with a low cracking pressure, ensuring high sensitivity in controlling the media flow direction. These valves are ideal for high purity and ultra high purity applications.

Features

- ◎ Metal-to-metal seal between valve body and gasket provides ensured sealing performance
- ◎ Cone face seal between seal ring and valve body offers excellent reverse sealing performance
- ◎ Low cracking pressure for high sensitivity

Technical Data

Port Size			1/2" or 1/4"
Flow Coefficient (Cv)			2.5 or 1.2
Orifice Size			10.3 mm
Max. Working Pressure			145 psig (10 bar)
Working Temperature			14 ~ 176 °F (-10 ~ 80 °C)
Nominal Cracking Pressure			1/3 psig (0.02 bar)
Cracking Pressure①			≤ 0.33 psig (0.023 bar)
Reseal Pressure			≤ 9.95 psig (0.686 bar)
Leak Rate (Helium)	**External**	**Inboard**	≤ 1×10^{-9} std·cm^3/s

Note: ① For valves not actuated for a period of time, initial cracking pressure may be higher than the set cracking pressure.

Flow Data

Air @ 70 °F (21 °C)

Cv	Orifice in. (mm)	Pressure Drop to Atmosphere psig (bar)	Air (l/min)
2.5	0.41 (10.3)	10 (0.68)	800
		50 (3.4)	2130
		145 (10)	5300
1.2	0.25 (6.4)	10 (0.68)	380
		50 (3.4)	1020
		145 (10)	2510

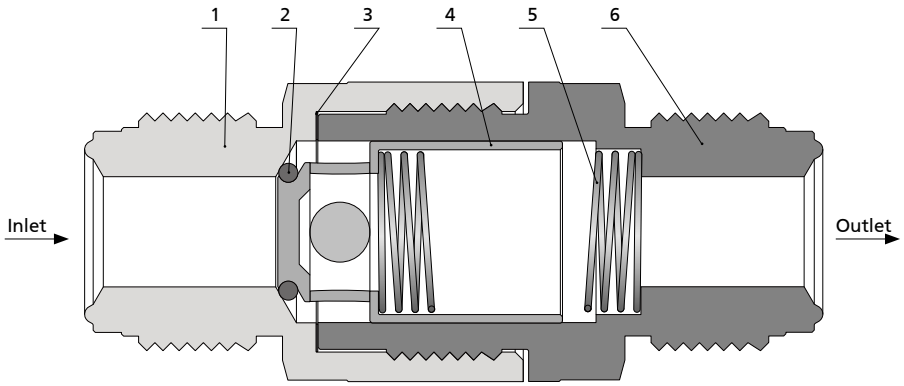
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Process Specification

Item \ Process Specification	Special Cleaning and Packaging Process (FC-02)	Ultra High Purity Process (FC-03)
Material	316L SS, 316L SS VAR	
Wetted Surface Roughness	Ra 10 µin. (0.25 µm)	Ra 5 µin. (0.13 µm)
Polishing Process	Machine finished	Electropolished
Assembly Environment	In specially cleaned areas	ISO Class 4 (FS 209E Class 10 equivalent) cleanroom
Packaging	Double bagged	Double bagged, inner bag packing in the cleanroom

Note: Refer to page 364 for a detailed description of Process Specification.

Major Materials of Construction

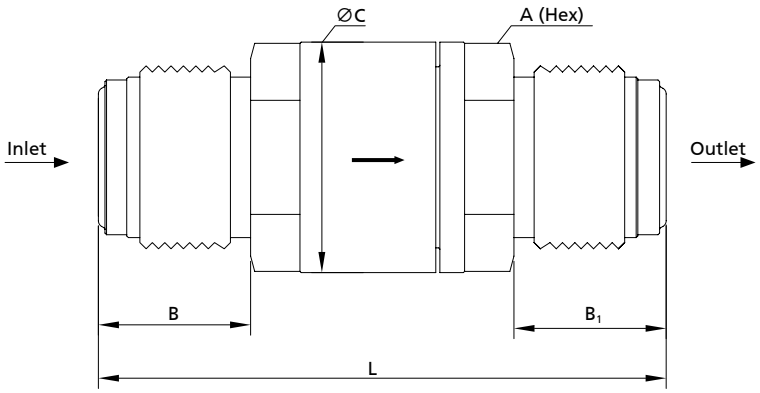


Item	Component	Material/Specification
1	Inlet Body	316L SS, 316L SS VAR
2	Seal	Fluorocarbon FKM or FFKM
3	Gasket	PTFE-coated 316L SS/A240
4	Sliding Sleeve	316L SS, 316L SS VAR
5	Spring	316 SS/ASTM A313
6	Outlet Body	316L SS, 316L SS VAR

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Dimensions and Ordering Information

Dimensions, in inches (millimeters), are for reference only.



Basic Ordering Number	Connection Type and Size		Cv	Dimension, in. (mm)				
	Inlet	Outlet		A	B	B_1	ØC	L
CHP6L-FR8-1F3	1/2" Integral Male FR Fitting		2.5	0.94 (24)	0.73 (18.5)	0.73 (18.5)	1.1 (28)	2.72 (69)

Ordering Number Description

CHP6L - FR8 - FFR8 - 1ZF3

Series	Body Material	Inlet Type	Inlet Size	Outlet Type	Outlet Size	Nominal Cracking Pressure	Seal Material	Process Specification
CHP	SS 316 SS	FR Integral Male FR Fitting	4 1/4"	Same as Inlet	Specified in the same way as Inlet	1 1/3 psig	FKM	F2 FC-02
	6LV 316 SS VAR	FFR Rotatable Female FR Fitting	8 1/2"				Z FFKM	F3 FC-03
		RFR Rotatable Male FR Fitting						

Note: "Ordering Number Description" is a reference to understand the combination rules of FITOK product part number.
Not all combinations are available. For any questions, Please contact FITOK or our authorized distributors.

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