

Low Pressure Medium Flow Check Valves

CHP Series

Introduction

CHP 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"	
Flow Coefficient (Cv)		2.5	
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 Pressure ^①		≤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)

Orifice in. (mm)	Pressure Drop to Atmosphere psig (bar)	空气 (l/min)
0.41 (10.3)	10 (0.68)	80
	50 (3.4)	2130
	145 (10)	5300

Fittings

Valves

Regulators

Filters

Tubing

Integrated Systems

Other Products

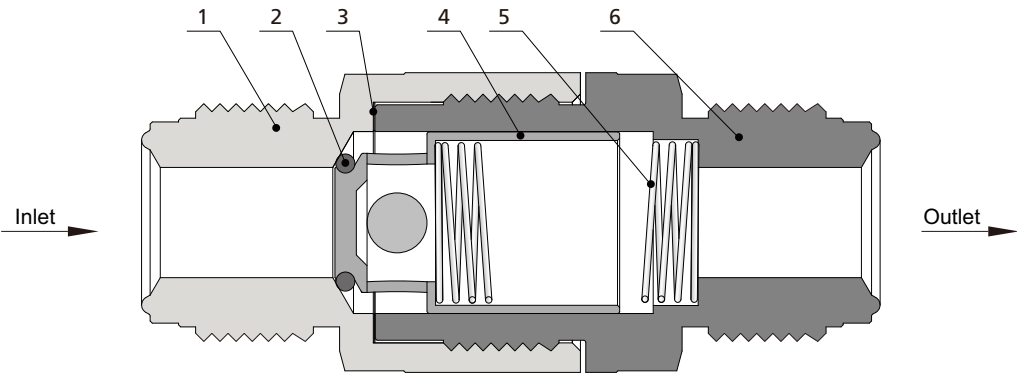
Technical Information

Process Specification

Item	Process Specification	
	Special Cleaning and Packaging Process (FC-02)	Ultra High Purity Process (FC-03)
Mterial	316L SS, 316L SS VAR	
Wetted Surface Roughness	Ra 0.25 µm (10 µin.)	Ra 0.13 µm (5 µin.)
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 P-01 for a detailed description of Process Specification.

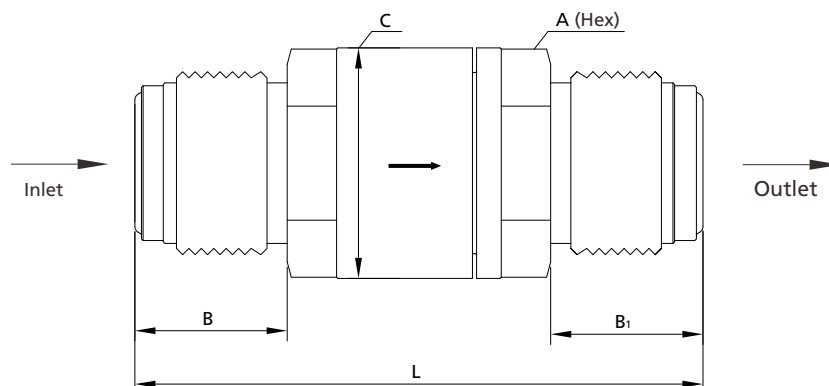
Major Materials of Construction



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

Dimensions and Ordering Information

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



Basic Ordering Number	Connection Type and Size		Dimension, in. (mm)				
	Inlet	Outlet	A	B	B ₁	C	L
CHP□□-FR8-	1/2" Integral Male FR Metal Gasket Face Seal Fitting		0.94 (24)	0.73 (18.5)	0.73 (18.5)	Ø1.1 (Ø28)	2.72 (69)

Ordering Number Description

CHP6L - FR8 - FFR8 - 1ZF3

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

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 Group or our authorized distributors.