

Surface-Mounting Check Valves

CI Series

Introduction

Modular check valves feature a poppet design that minimizes particle generation, making them suitable for high purity and ultra high purity applications. The ultra-low cracking pressure and reseal pressure ensure high sensitivity in controlling media flow direction.



Features

- W-seal and C-seal optional
- Wetted components electropolished to a surface finish of 5 µin. (0.13 µm) Ra max.
- Cracking pressure ≤ 2.26 kPa (1/3 psig)

Technical Data

Max. Working Pressure		145 psig (10 bar)
Working Temperature		14~176 °F (-10~80 °C)
Flow Coefficient (Cv)		0.25
Nominal Cracking Pressure ^①		1/3 psig (2.26 kPa)
Reseal Pressure		2 psig (13.56 kPa)
Leakage Rate (Helium)	Internal	≤ 1×10 ⁻⁹ std·cm ³ /s
	External	≤ 1×10 ⁻⁹ std·cm ³ /s

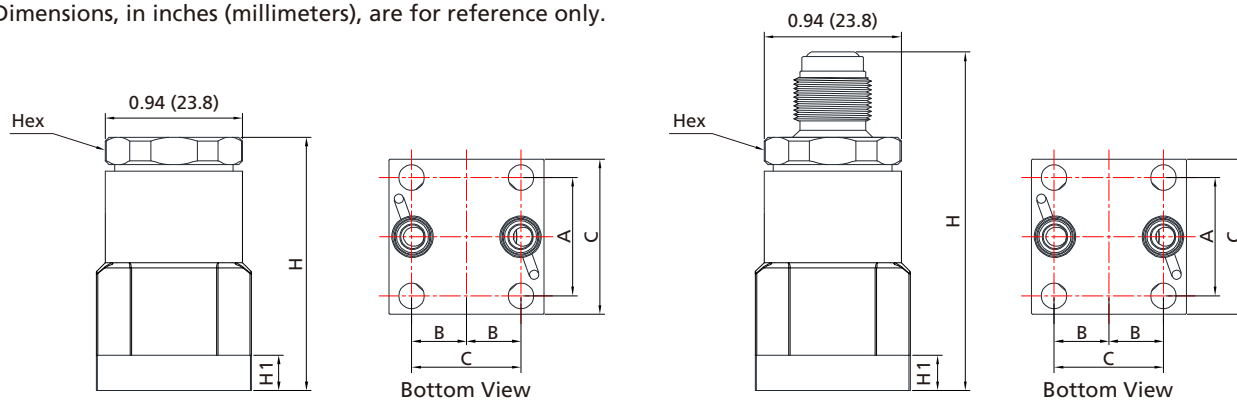
① If the check valve is not actuated for a period of time, its initial cracking pressure may be higher than set cracking pressure.

Process Specification

Process Specification		Ultra High Purity Process (FC-03)
Item		
Material		316L SS, 316L SS VAR
Wetted Surface Roughness		Ra 5 µin. (0.13 µm)
Polishing Process		Electropolished

Dimensions and Ordering Information

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



Basic Ordering Number	Inlet Type and Size	Outlet Type and Size	Dimension, in. (mm)				
			A	B	C	H	H1
CI□□-WS11-F3	1.125" W-Seal	1.125" W-Seal	0.86 (21.8)	0.39 (10.0)	1.13 (28.6)	1.85 (47.0)	0.26 (6.5)
CI□□-FR4-WS11-F3	1/4" Integral Male FR Fitting	1.125" W-Seal				2.47 (62.7)	
CI□□-WS11-FR4-F3	1.125" W-Seal	1/4" Integral Male FR Fitting				3.28 (83.4)	
CI□□-FFR4-WS11-F3	1/4" Female FR	1.125" W-Seal				3.31 (84.2)	
CI□□-WS11-FFR4-F3	1.125" W-Seal	1/4" Female FR					
CI□□-RFR4-WS11-F3	1/4" Rotatable Male FR Fitting	1.125" W-Seal					
CI□□-WS11-RFR4-F3	1.125" W-Seal	1/4" Rotatable Male FR Fitting					

Ordering Number Description

CI6LV - WS11 - FR4 - ZF3

Series		Body Material		Inlet Type		Inlet Size		Outlet Type	Outlet Size	Seat Material	
CI	6L	316L SS	TB	Fractional Tube Butt Weld	4	1/4" or 1/4"×0.035"	Same as Inlet Specified in the same way as Inlet	Specified in the same way as Inlet	Z	FKM	
	6LV	316L SS VAR	MTB	Metric Tube Butt Weld	6	6 × 1 mm or 3/8"×0.035"				FFKM	
	FR	Integral Male FR Fitting	8	8 × 1 mm or 1/2"×0.049"	Process Specification F3 FC-03						
	FFR	Rotatable Female FR Fitting	10	10 × 1 mm							
	RFR	Rotatable Male FR Fitting	11	1.125"							
	WS	W-Seal	12	12 × 1 mm or 3/4"×0.049"							
		CS	C-Seal	15	1.5"						

Notes:

- "Ordering Number Description" is a reference to understand the combination rules of FITOK product part number. Not all combinations are available. Should you have any questions, please contact FITOK or our authorized distributors.
- Mounting screws and gasket are not included, please contact FITOK or our authorized distributors if you have any requests.