

# High-Capacity Sensitive Check Valves

## CF Series

### Introduction

High-Capacity Sensitive Check Valves, also known as exhaust check valves, feature minimal cracking pressure and high capacity. These valves are typically installed on the exhaust side of a vacuum pump to prevent air from entering the system during pump shutdowns or malfunctions.



### Features

- ⦿ 316 SS body, equipped with FKM O-ring
- ⦿ Minimal cracking pressure
- ⦿ Large orifice and high capacity
- ⦿ KF Vacuum Flange Port

### Technical Data

Nominal Cracking Pressure psig (mbar)	0.22 (15)	0.36 (25)	0.73 (50)	0.91 (63)	1.02 (70)
Cracking Pressure Range psig (mbar)	0.1~0.25 (6.9~17.2)	0.27~0.4 (18.6~27.6)	0.6~0.75 (41.4~51.7)	0.7~0.95 (55.2~65.5)	0.85~1.05 (62.1~72.4)
Reseal Pressure psig (mbar)	Back Pressure ≤0.1 (6.9)	Inlet Pressure ≥0.2 (13.8)	Inlet Pressure ≥0.4 (25.6)	Inlet Pressure ≥0.5 (41.4)	Inlet Pressure ≥0.65 (44.8)
Max. Working Pressure psig (bar)	145 (10)				
Working Temperature Range °F (°C)	32 ~ 248 (0 ~ 120)				
Wetted Surface Roughness µin. (µm)	Mechanical Polishing Ra 16 (0.4)				
Process Specification	FC-01 or FC-02				
Flow Coefficient (Cv)	14.4				
Leak Rate (Helium)	Internal	<1×10 <sup>-7</sup> std cm <sup>3</sup> /s			
	External	<5×10 <sup>-10</sup> std cm <sup>3</sup> /s			

Fittings

Valves

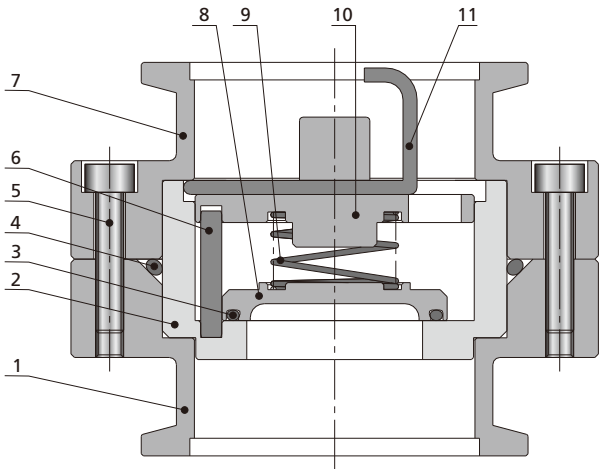
Regulators

Filters

Tubing

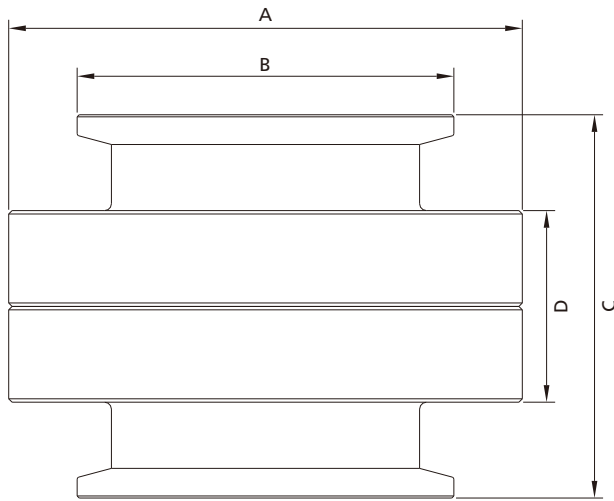
Integrated  
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Information

## Major Materials of Construction



Item	Component	Material Grade
1	Inlet Body	316 SS
2	Sleeve	316 SS
3	O-ring	FKM
4	O-ring	FKM
5	Screw	Stainless Steel
6	Round Pin	Stainless Steel
7	Outlet Body	316 SS
8	Poppet	316 SS
9	Spring	304 SS
10	Seat	316 SS
11	Limit Bracket	316 SS

## Dimensions and Ordering Information

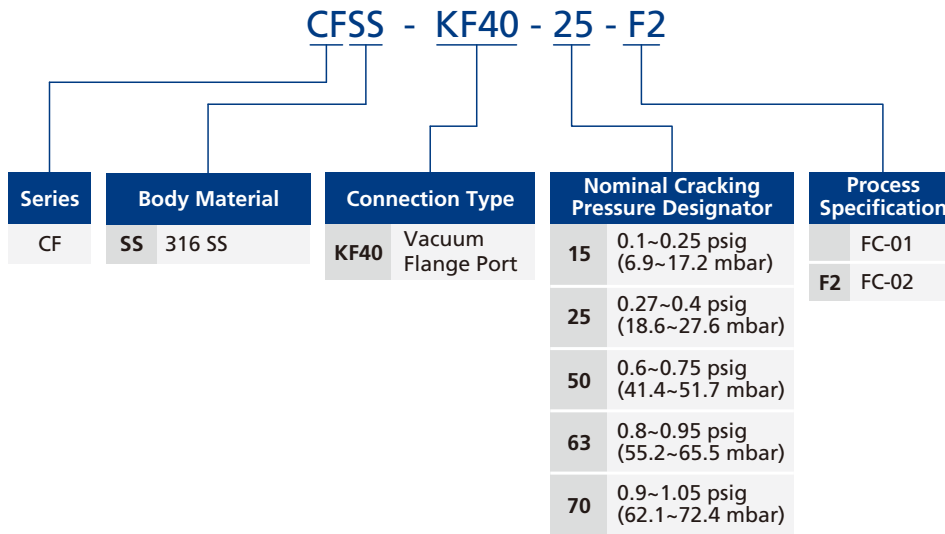


Basic Ordering Number	Connection Type	Orifice in. (mm)	Cv	Dimensions, in. (mm)			
				A	B	C	D
CF□□-KF40-□□-□□-□□	KF40	0.98 (25)	14.4	2.95 (75)	2.17 (55)	2.2 (56)	1.1 (28)

Note: Dimensions are for reference only and are subject to change. For other dimensions, please contact FITOK Group or our authorized distributors.

Fittings  
 Valves  
 Regulators  
 Filters  
 Tubing  
 Integrated Systems  
 Other Products  
 Technical Information

## Ordering Number Description



**Notes:**

1. "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 Group or our authorized distributors.
2. Check valve is designed with unidirectional flow path, it can't be used as safety relief valve.

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