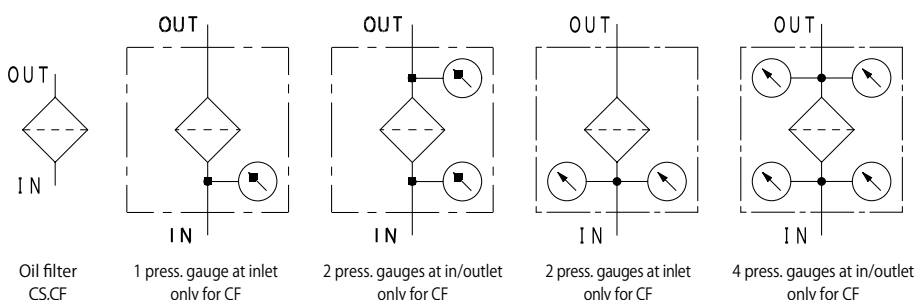


Spin-on type Oil Filter



Characteristics

- Easy maintenance by cartridge replacement
- Applicable to both total amount filtration and partial filtration depending on flow rate
- Built-in relief valve prevents cartridge from breakdown by clogging
- Pressure gauge is installable at 4 positions: In/Outlet, left/right side (option)
- Pipe connection type is "Rc threaded"



SPECIFICATION

Max working pressure	MPa	0.5
Working temperature	°C	-10 ~ 90
Working fluid		Mineral oil
Measurable pressure range	MPa	0 ~ 1.0
Cracking pressure	MPa	0.1
Flow direction/ Extract direction of filter element		OUT → IN / Downward

Model code	CS-04	CF-06	CF-08	
Standard flow rate ☆	ℓ /min	25	70	85
Main material	Body	Aluminum		
Coating	Body	Non-coating		
	Cartridge	Blue gray	Gray	
Weight	kg	0.49	0.92	

☆Standard flow rate is estimated by the condition of density: 0.86, kinematic viscosity: 32mm²/s, filtration rating: U10, pressure drop: lower than 0.05MPa.
(Since it is adjusted by characteristic of each product, value can be different in some cases.)

MODEL CODE

(Model code example)

CS
CF — **04** — **10U** — **P 1**

Code	Inner diameter
CS 04	Rc 1/2
CF 06	Rc 3/4
CF 08	Rc1

Code	Filtration rating
	Paper
10U	10 μm

Refer to P.15 -16 for detail information of filter element.

Code	Option
Only for CF	
①	Pressure gauge*1*2
Blank	Non
P1	1 pc
P2	2 pcs
P3	3 pcs
P4	4 pcs

* 1 Only for CF model. If selecting the model without pressure gauge, additional installation is NOT available due to no mounting port.
* 2 Since pressure gauge is not installed, please remove the appropriate closing plug and install pressure gauge by yourself.

FLOW RATE GRAPH

Condition

Fluid type : ISO VG32
Oil temperature: 40°C

(Density: 0.86,
Kinematic
viscosity: 32mm²/s)

How to calculate of pressure drop

Estimate pressure drop of filter assembly by following equation:

$$\text{Pressure drop of filter assembly} = \text{① Pressure drop of filter housing} + \text{② Pressure drop of filter element}$$

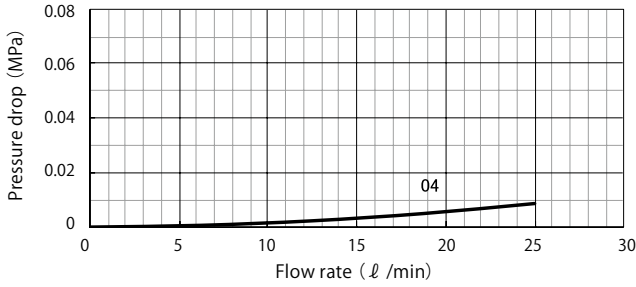
Estimate pressure drop of filter assembly by following equation if required condition is different:

$$\begin{aligned} \text{Pressure drop of filter housing} &= \frac{\text{Fluid density}}{0.86} \times \text{Pressure drop of filter housing at density of 0.86} \\ \text{Pressure drop of filter element} &= \frac{\text{Fluid density}}{0.86} \times \frac{\text{Kinematic viscosity}}{32} \times \text{Pressure drop of filter element at density of 0.86, kinematic viscosity of 32} \end{aligned}$$

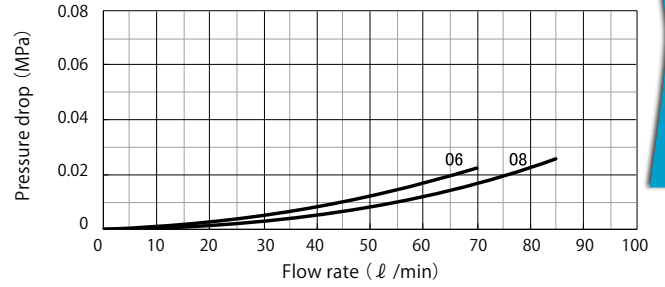
★ Pressure drop of filter housing is proportional to fluid density, and pressure drop of filter element is proportional to fluid density and kinematic viscosity.

① Pressure drop of filter housing

CS

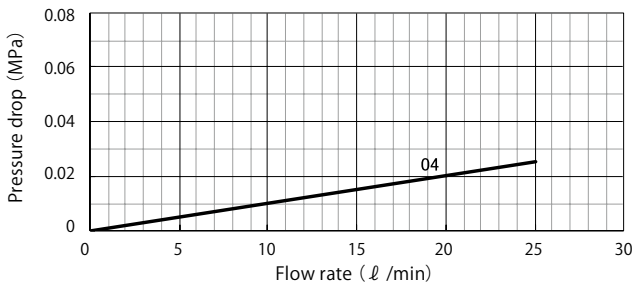


CF



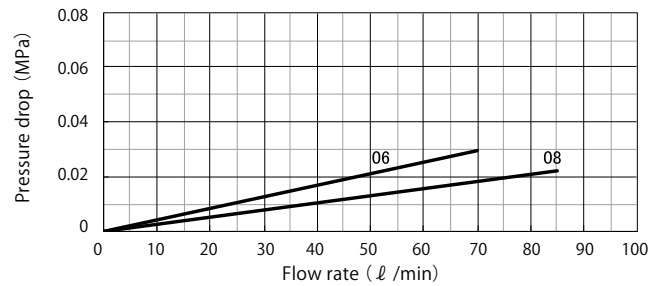
② Pressure drop of filter element

CS



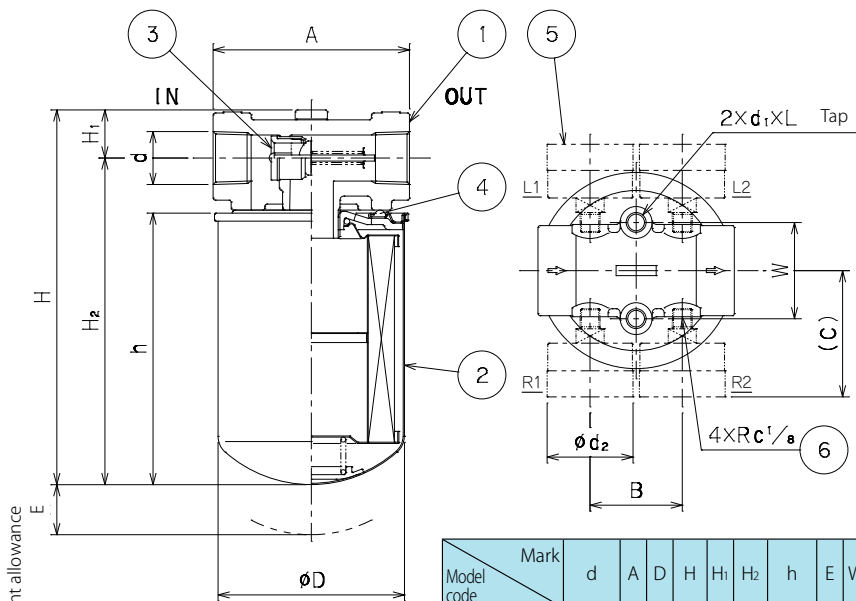
10U
10 μm

CF



DIMENSION · PARTS LIST

CS-04-10U CF-□□-10U-P□

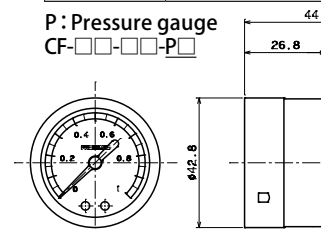


No.	Item	Qty
1	Body	1
2	Cartridge	1
3	Relief valve	1
4	Packing	1
5	Pressure gauge (Only for CF with option)	1 ~ 4
6	Plug (Only for CF with option)	1 ~ 4

Spare Cartridge

Model code	Cartridge model code	Weight(kg)
CS-04	S-810-1	0.33
CF-06,08	F-913-1	0.63

P : Pressure gauge CF-□□-□□-□□-□□



Model code	Mark	d	A	D	H	H ₁	H ₂	h	E	W	d ₁ × L	B	C	d ₂
CS-04		Rc1/2	88	80	140	19	121	100	25	38	M8 × 14			
CF-06		Rc3/4	98	93	187	24	163	135.5	13	48	M10 × 19	46	63	42.8
CF-08		Rc1												

Indicator model code	Pressure range(MPa)	Mount position
	Visual observation signal	L1,R1 L2,R2
UT-1	0 ~ 1 (Minimum scale:0.05)	Primary pressure Secondary pressure