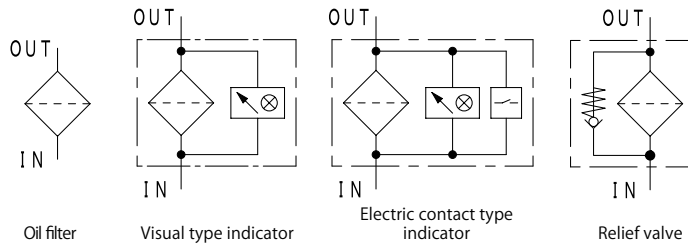


Manifold type Compact Filter



Characteristics

- Directly installable on manifold block *1
- Regulation of installation surface (JOHS121)
GF-A-06: P-AH-08-2-A
- Slimmed to the utmost limit by eliminating drain plug port *2
- Clogging indicator (option) on the top enables to improve visibility
- Relief valve is available as an option



★ Refer to P.222 for hydraulic graphic symbol of other combination of optional equipment.

SPECIFICATION

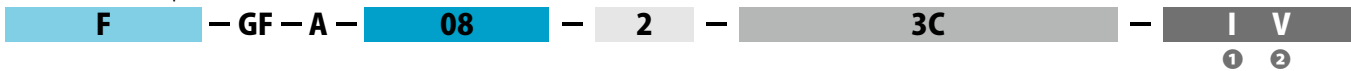
Max working pressure	MPa	25.0
Repetition durability test		0 ~ 25.0MPa x10 ⁷ times
Working temperature	Standard	°C -10 ~ 90
	High temperature *3	°C -10 ~ 150
Indicator working pressure	Standard	MPa 0.3
	High pressure	MPa 0.7
Cracking pressure	Standard	MPa 0.35
	High pressure	MPa Non bypass
Allowable differential pressure of filter element	Standard	MPa 0.7
	High pressure	MPa 21.0
Flow direction/Extract direction of filter element		OUT → IN / Upward

Inner diameter	06-2	06-3	08-2	08-3	
Standard flow rate ☆ ℓ /min	90	110	200	230	
Main material	Body	FCD			
	Shell	Carbon steel			
	Cover	Carbon steel			
Coating	Protective film treatment				
Weight	kg	7.1	8.4	12.1	14.8

☆ Standard flow rate is estimated by the condition of density: 0.86, kinematic viscosity: 32mm²/s, filtration rating: 10U, 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>



Code	Fluid type
Blank	Mineral oil
F	Phosphate ester fluid
G	Water glycol fluid
C	Fatty ester fluid
W	High water base fluid
S	Fuel (Kerosene, Gas oil, Diesel oil)
B	Brake fluid

Code	Inner diameter
06	20A Equivalent
08	25A Equivalent

Code	Case length
	2
	3

Code	Filtration rating	Code	Filtration rating
C-Fiber		Wire gauze	
3C	3 μm	5UW	5 μm
8C	8 μm	10UW	10 μm
25C	25 μm	20UW	20 μm
High pressure C-Fiber		40UW	40 μm
3CH	3 μm	50UW	50 μm
8CH	8 μm	200W	200Mesh
25CH	25 μm	150W	150Mesh
Paper		100W	100Mesh
10U	10 μm	60W	60Mesh
20U*4	20 μm		
40U*4	40 μm		

Code	Option
①	Indicator
Blank	Closing plug
I	Visual type
E	Electric contact type
D	Electric contact type (Micro capacity)
②	Relief valve *5
K	Non
V	Relief valve

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

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:

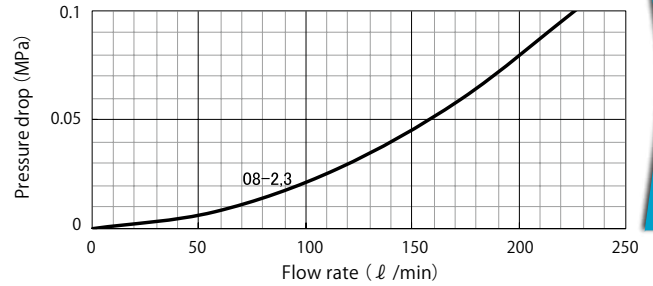
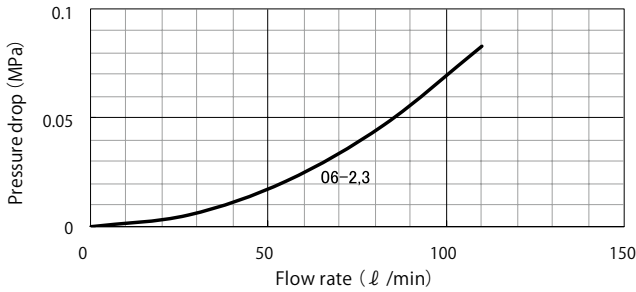
$$\text{Pressure drop of filter assembly} = \text{① Pressure drop of filter housing} + \text{② Pressure drop of filter element}$$

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

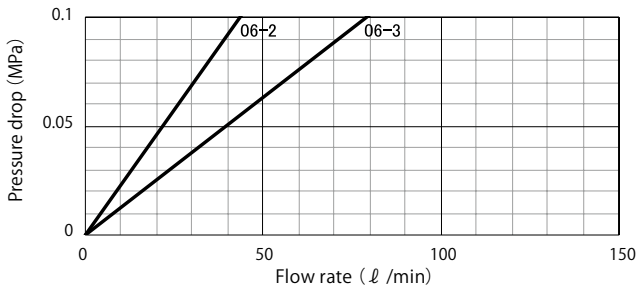
$$\begin{aligned} \text{Pressure drop of filter housing} &= \frac{\text{Fluid density}}{0.86} \times \text{Pressure drop of filter housing at density of 0.86} \\ \text{Pressure drop of filter element} &= \frac{\text{Fluid density}}{0.86} \times \frac{\text{Kinematic viscosity}}{32} \times \text{Pressure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

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

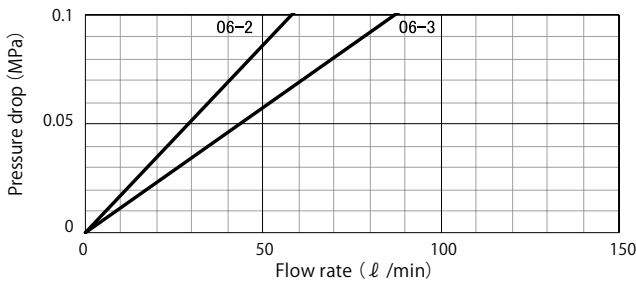
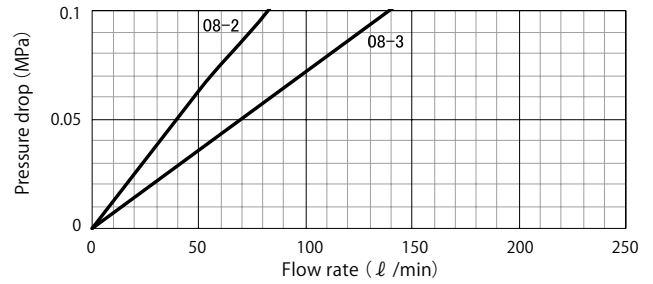
① Pressure drop of filter housing



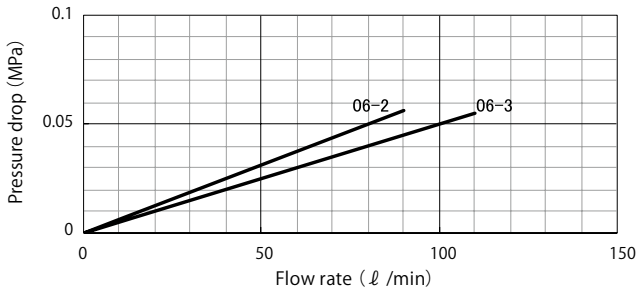
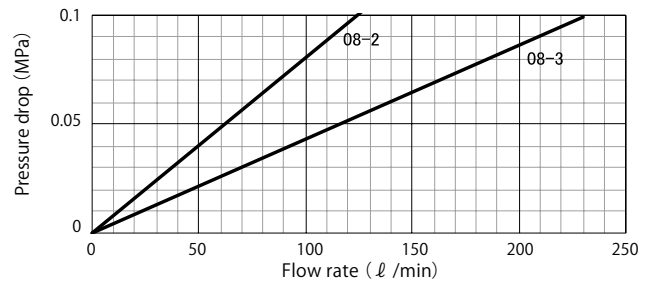
② Pressure drop of filter element



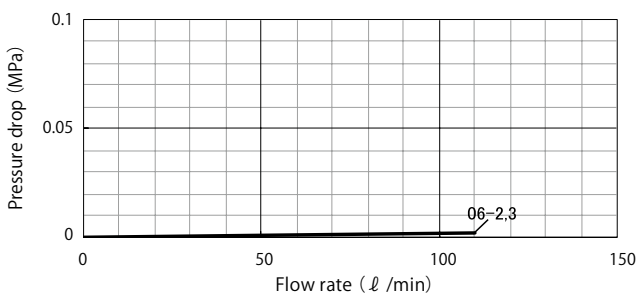
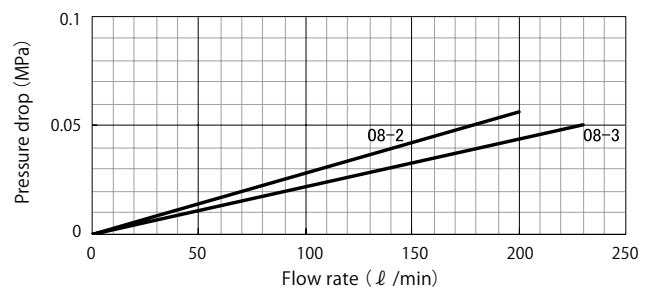
3C
3µm



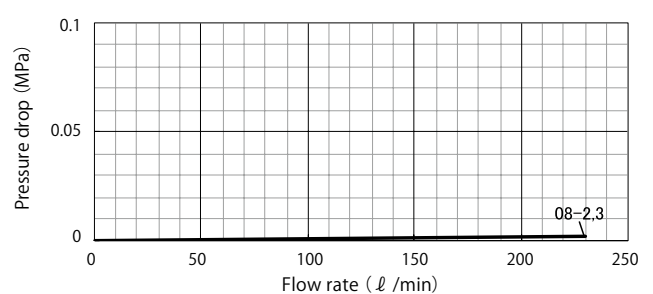
8C
8µm



10U
10µm



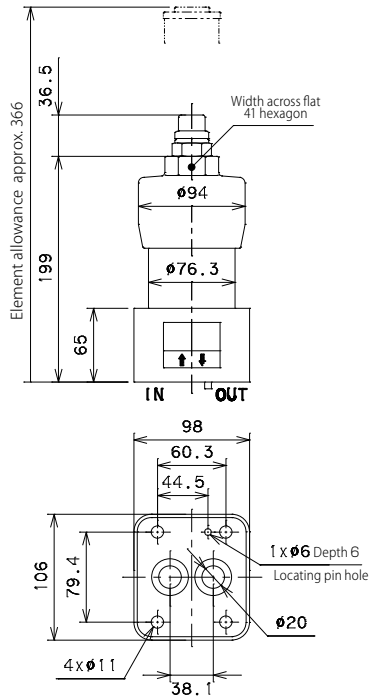
150W
150Mesh*1



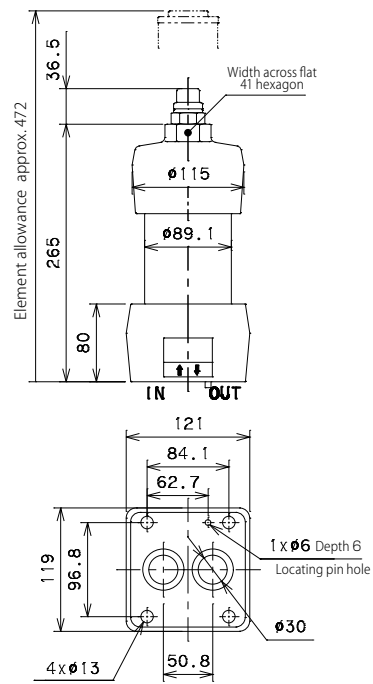
* 1 Pressure drop of wire gauze element is described with one line since the value is low and there is no difference at each filter size.

GF-A-06-2-□□-I□

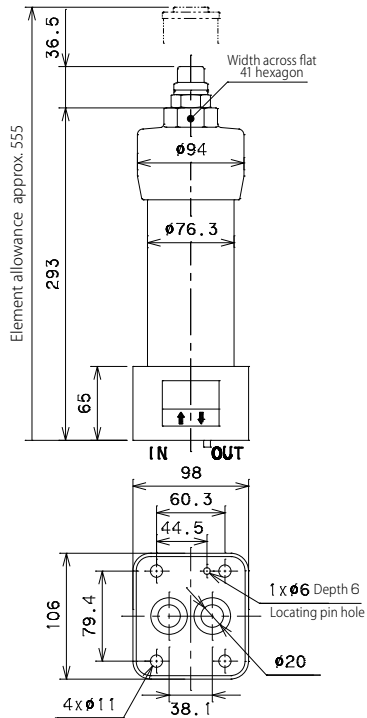
I : Visual type indicator



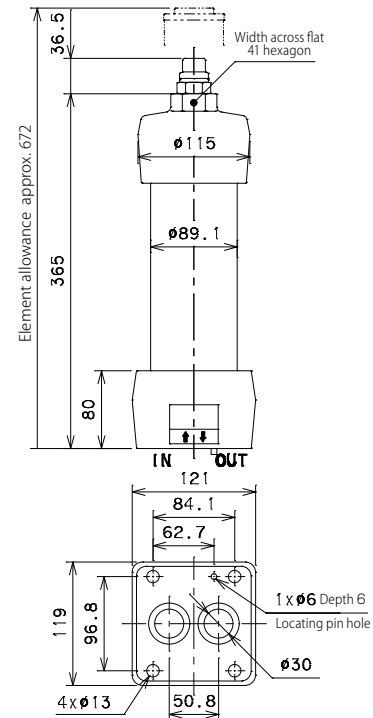
GF-A-08-2-□□-I□



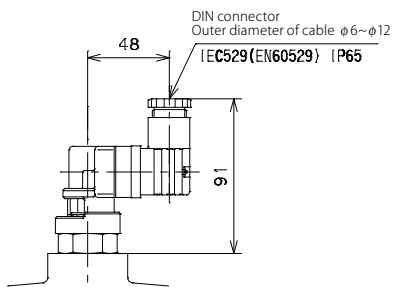
GF-A-06-3-□□-I□



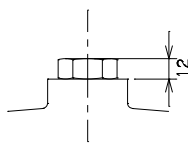
GF-A-08-3-□□-I□



Differential pressure type indicator part * Common at all size



E,D : Electric contact type indicator
GF-A-□□-□□-□□-E,D□



Closing plug
GF-A-□□-□□-□□-□

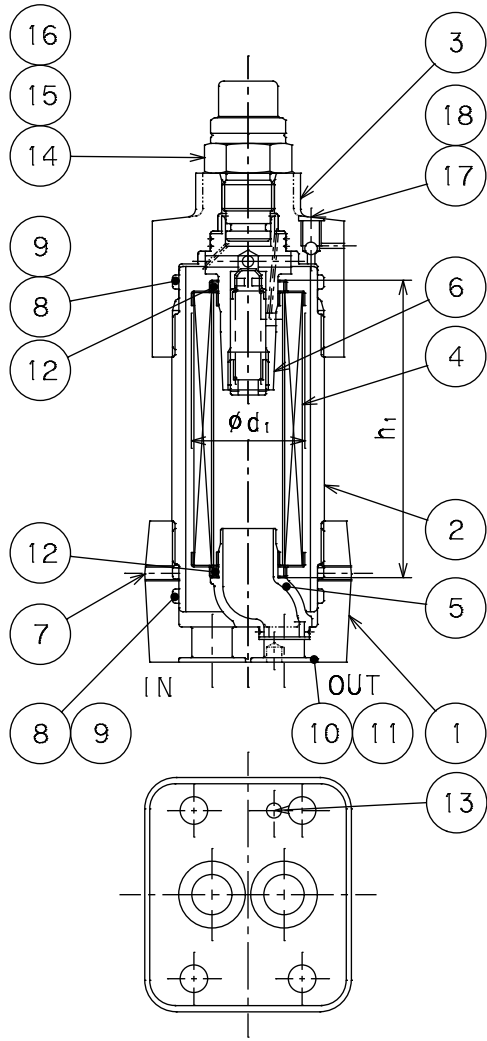
Model code	Working pressure(MPa)		
	Visual observation signal		Electric signal
	Caution	Clogging	
IF-3	0.2	0.3	/
IF-7		0.7	
EF-3		0.3	0.3
EF-3D			
EF-7		0.7	0.7
EF-7D			

(Micro switch specification)

Model code	Rated capacity		Contact diagram : 1C
	Resistance load	Inductive load	
EF-3	3A,250V AC	2A,250V AC	
EF-7	3A,30V DC	2A,30V DC	
EF-3D	100mA,125V AC	100mA,30V DC	
EF-7D	100mA,125V AC	100mA,30V DC	

* IF-7 and EF-7(D) are for High pressure element.

CROSS SECTION



PARTS LIST

No.	Item	Qty
1	Body	1
2	Shell	1
3	Cover	1
4	Element	1
5	Inlet	1
6	Relief valve	1
7	Set Screw	2
8	O-ring	2
9	Backup ring	2
10	O-ring	2
11	Backup ring	2
12	O-ring	2
13	Spring Pin	1
14	Indicator	1
15	O-ring	1
16	O-ring	1
17	Set Screw	1
18	Steel ball	1

ELEMENT SIZE

Element Model code	Size(mm)		Weight*1 (kg)
	φ d ₁	h ₁	
P-GF-A-03-2	45	45.3	0.12
P-GF-A-03-3		212	0.19
P-GF-A-06-2	50.2	51	0.16
P-GF-A-06-3		212	0.26
P-GF-A-08-2	62.2	64	0.25
P-GF-A-08-3		260.6	0.36

SEALING PARTS LIST

No.	8	9	10	11	12	15	16	Item code of sealing parts set*3				
Standard*2	JIS B2401 1A	JIS B2407 T3	JIS B2401 1B	SUN-4B	AS568 / JIS B2401 1A	JIS B2401 1B	JIS B2401 1A	Material	SP No.: 8,9,12 *4	SP-H No.: 8,9,12 *4	SA No.: 8~12, 15,16	SA-H No.: 8~12, 15,16
Model code												
GF-A-03	G55	For G55	P20	For P20	119	P18	P14	NBR	SSF000696		SSF000122	
								FKM	SSF000880		SSF000489	
GF-A-06	G70	For G70	G25	For G25	119			NBR	SSF000566		SSF000123	
								FKM	SSF000594		SSF000490	
GF-A-08	G80	For G80	G35	For G35	P32*5			NBR	SSF000740	SSF000849	SSF000124	SSF000127
								FKM	SSF000922	SSF001152	SSF000491	SSF000494

MODEL CODE OF SPARE PARTS

Replacement element (Model code example)

P	—	F	—	GF	—	A	—	08	—	2	—	3C
("P" represents filter element)												
		Fluid type				Inner diameter		Case length		Code		Filtration rating
								2		3		

★ Refer to the [MODEL CODE] table on the previous page for code selection.

Sealing parts set (Model code example)

SA	—	F	—	GF	—	A	—	08	—	H
Code										
SP	For element replacement	Fluid type				Inner diameter		Code	Filtration rating	
SA	For overhaul							Blank	All models except below	
								H	3CH, 8CH, 25CH	

* 1 Weight of "Paper" element * 2 Standard for NBR. For other material, conform to the standard.

* 3 Sealing parts are available as "Sealing parts set" only. We do not provide single part individually.

* 4 Part #8 O-ring and #9 Backup ring are only for the cover side (1 pc each). * 5 Backup ring (P32) is attached for high pressure element (JIS B2407.T3)