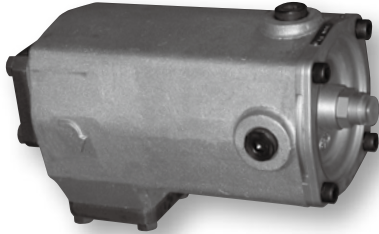
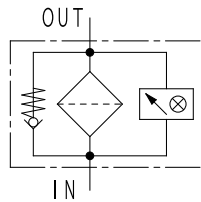


In/Outlet reversed type of ISH model

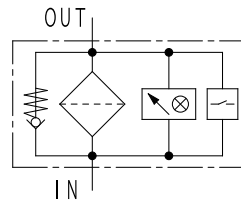


Characteristics

- **Horizontal Inlet and downward Outlet enables efficient piping from tank side***
*Filter element of STU is NOT same as ISH model.
- **Horizontal extraction of element replacement**
- **Light filter housing of aluminum alloy**
- **Clogging indicator*1 and relief valve are included in standard model**
- **Pipe connection type is "flange" for standard model**
(option: Rc threaded type companion flange)



Visual type indicator
Relief valve



Electric contact type indicator
Relief valve

SPECIFICATION

Max working pressure	MPa	0.5
Working temperature	Standard	°C -10 ~ 90
	High temperature*2	°C -10 ~ 130
Indicator working pressure	MPa	0.02
Cracking pressure	MPa	0.023
Allowable differential pressure of filter element	MPa	0.15
Flow direction/Extract direction of filter element		OUT → IN / Horizontal extraction

Inner diameter	03B	04B	06B	08B	10B	12B	16B	20B	24B	28B	32B
Standard flow rate ☆	15	25	45	70	120	160	260	400	550	700	900
Main material	Body	AC									
	Cover	ADC									
Coating	Non-coating										
Weight	kg		3.3	4.5	7.0	9.2	13.5	24.6			

☆ Standard flow rate is estimated by the condition of density: 0.86, kinematic viscosity: 32mm²/s, filtration rating: 150W, 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>

F – **STU** – **08B** – **100W** – **E P**
① ②

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
03B	10A
04B	15A
06B	20A
08B	25A
10B	32A
12B	40A
16B	50A
20B	65A
24B	80A
28B	90A
32B	100A

Code	Filtration rating
Wire gauze	
60W	60Mesh
100W	100Mesh
150W	150Mesh
200W	200Mesh

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

Code	Option
① Indicator	
Blank	Closing plug
U	Visual type (Standard)
E	Electric contact type
D	Electric contact type (Micro capacity)
② Companion flange	
Blank	Weld type (Standard)
P	Rc threaded type

* 1 Visual type indicator is installed for standard model. Electric contact type indicator is selectable as an option.

* 2 Sealing parts: FKM, visual type indicator is available (Max oil temperature is electric contact type : 90°C)

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:

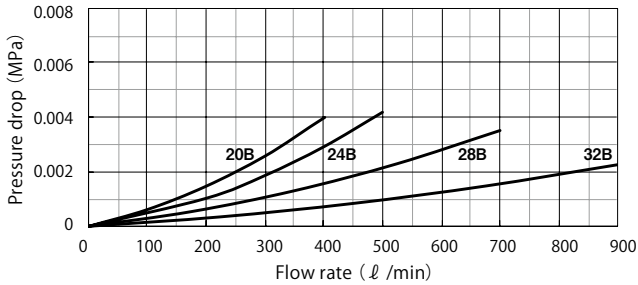
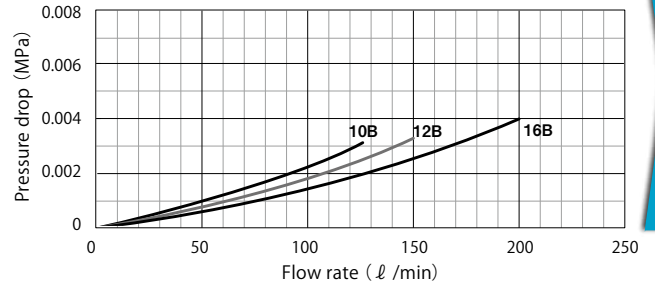
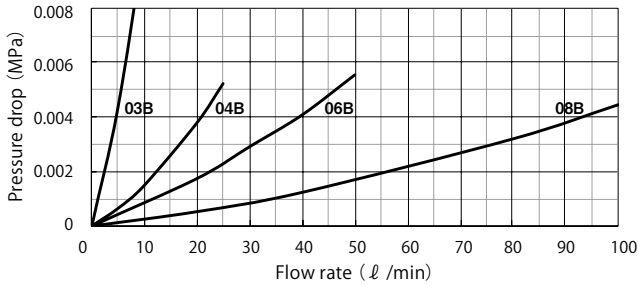
$$\text{Pressure drop of filter assembly} = \text{① Pressure drop of filter housing} + \text{② Pressure drop of filter element}$$

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

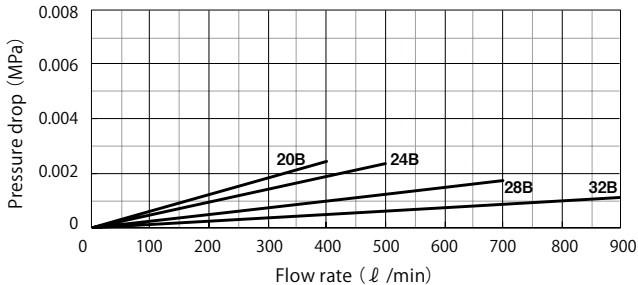
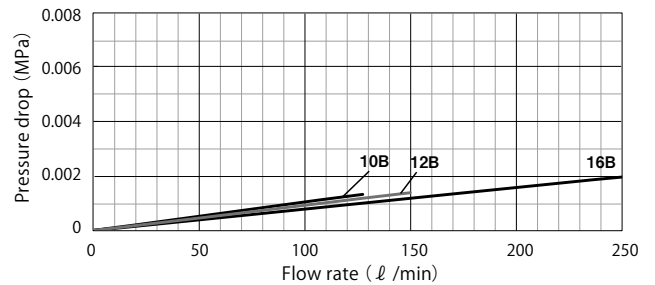
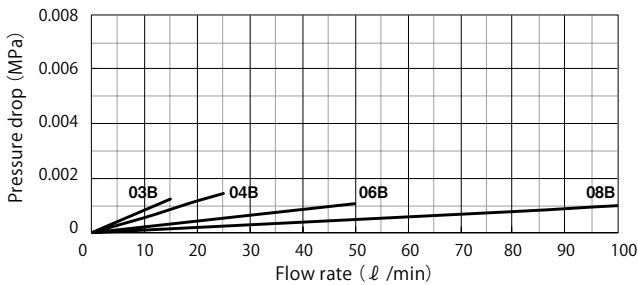
$$\begin{aligned} \text{Pressure drop of filter housing} &= \frac{\text{Fluid density}}{0.86} \times \text{Pressure drop of filter housing at density of 0.86} \\ \text{Pressure drop of filter element} &= \frac{\text{Fluid Density}}{0.86} \times \frac{\text{Kinematic viscosity}}{32} \times \text{Pressure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

★ 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

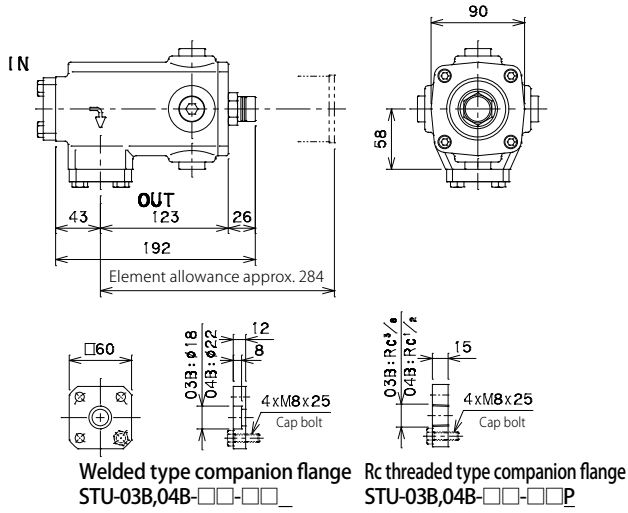


150W
150Mesh

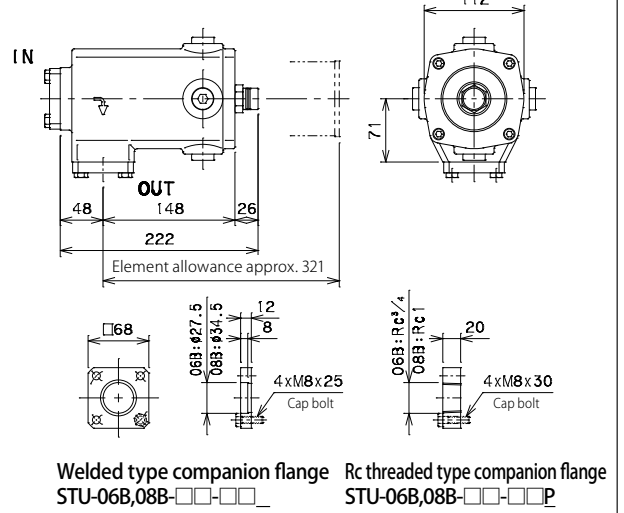
STU

STU-03B,04B-□□-U□□

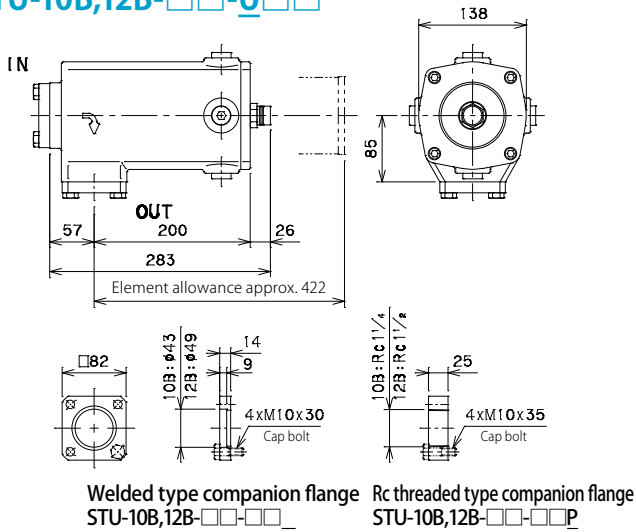
U: Visual type indicator



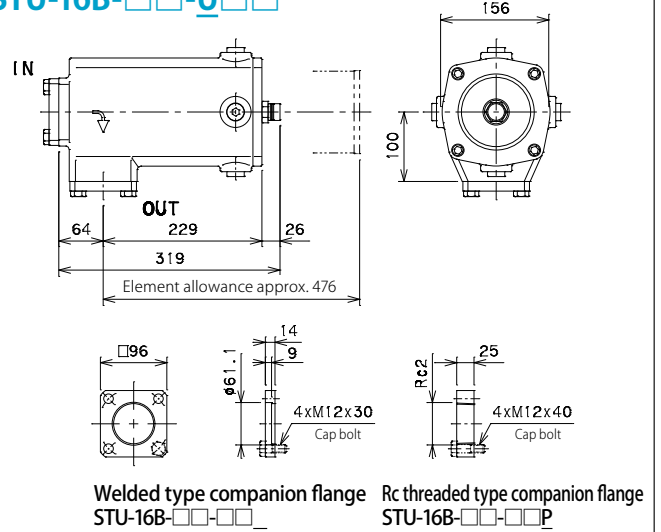
STU-06B,08B-□□-U□□



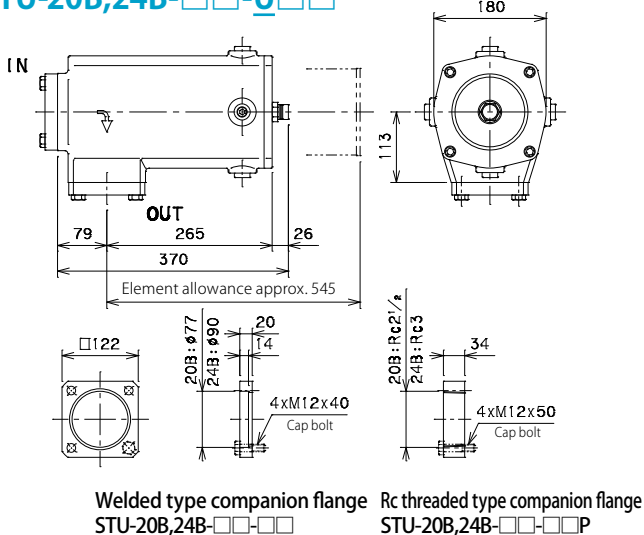
STU-10B,12B-□□-U□□



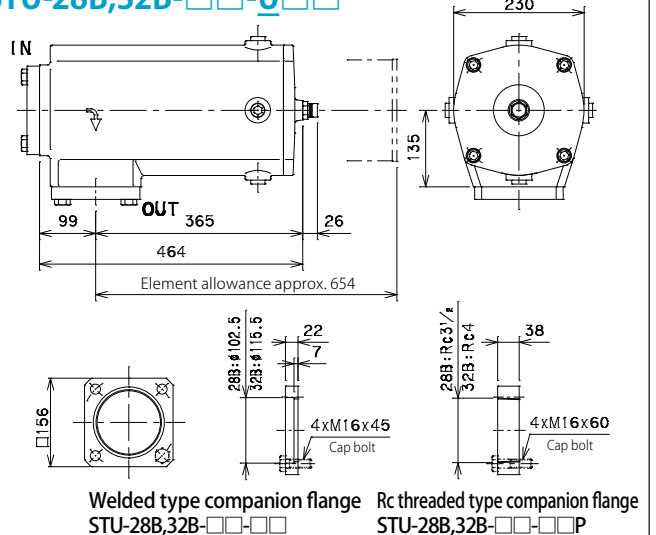
STU-16B-□□-U□□



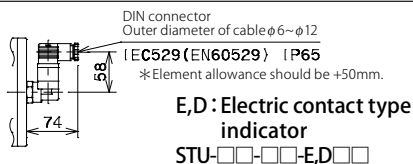
STU-20B,24B-□□-U□□



STU-28B,32B-□□-U□□



Differential pressure type indicator part
* Common at all size



<Micro switch specification>

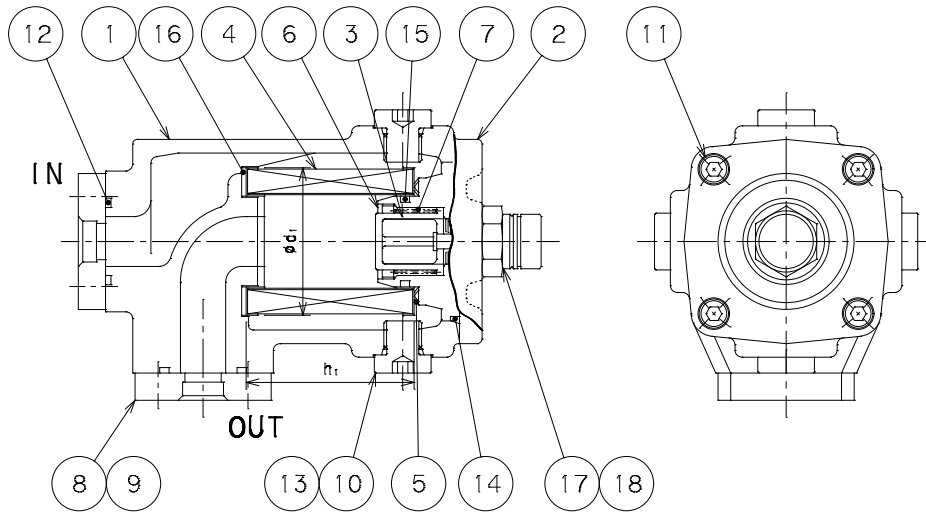
Model code	Rated capacity	Contact diagram : 1C
E4-02	Resistance load	3A,250V AC
	inductive load	3A,30V DC
		2A,250V AC
E4-02D	Micro capacit	2A,30V DC
		100mA,125V AC
		100mA,30V DC

1. COM ● 2. NO
● 3. NC

Model code	Working pressure (MPa)		Electric signal
	Visual observation signal	Caution	
	Clogging		
U4-02*1	—	0.02	/
E4-02	—	0.02	
E4-02D	—	0.02	

* 1 Visual type indicator (U4-02) is manual reset type. Please reset clogging signal after indicator activation.

CROSS SECTION



PARTS LIST

No.	Item	Qty
1	Body	1
2	Cover	1
3	Relief valve	1
4	Element	1
5	Wave washer	1
6	Stop ring	1
7	Spring	1
8	Companion flange	2
9	Bolt	8
10	Drain plug	4
11	Cap bolt	4
12	O-ring	2
13	O-ring	4
14	O-ring	1
15	O-ring	1
16	Packing	1
17	Indicator	1
18	O-ring	1

ELEMENT SIZE

Element Model code	Size(mm)		Weight (kg)
	ϕd_1	h_1	
P-STU-03B,04B	65	74	0.14
P-STU-06B,08B	85	91	0.23
P-STU-10B,12B	100	132	0.33
P-STU-16B	120	146	0.54
P-STU-20B,24B	140	165	0.74
P-STU-28B,32B	180	220	1.16

SEALING PARTS LIST

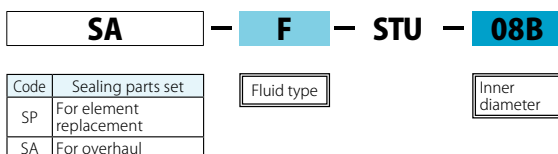
No.	12	13	14	15	16	18	Item code of sealing parts set*2		
							Material	SP No.: 13 ~ 16	SA No.: 12 ~ 16, 18
Standard*1	JIS B2401 1A			Special packing NBR	JIS B2401 1A				
Model code									
STU-03B,04B	G30	P14	G65	G35	t2x ϕ 65/ ϕ 40	P18	NBR	SSF000790	SSF000789
STU-06B,08B	G45		G90	G50	t2x ϕ 85/ ϕ 55		FKM	SSF001600	SSF001594
STU-10B,12B	G55		G100	G65	t2x ϕ 100/ ϕ 70		NBR	SSF001057	SSF001055
STU-16B	G70		G125	G80	t2x ϕ 120/ ϕ 85		FKM	SSF001342	SSF001595
STU-20B,24B	G95		G145	G100	t2x ϕ 140/ ϕ 105		NBR	SSF000674	SSF000673
STU-28B,32B	G125		G180	G140	t2x ϕ 180/ ϕ 145		FKM	SSF001601	SSF001596
							NBR	SSF000701	SSF000604
					FKM	SSF001430	SSF001597		
					NBR	SSF000660	SSF000675		
					FKM	SSF001602	SSF001598		
					NBR	SSF000806	SSF001593		
					FKM	SSF001603	SSF001599		

MODEL CODE OF SPARE PARTS

Replacement element (Model code example)



Sealing parts set (Model code example)



★ Model code of replacement element exists two types: "Individual code" and "Common code", however it represents same product.

"Individual code": Used in drawings and nameplate as shown in <Model code example>.

"Common code": Used in vouchers and tag Refer to [Spare Element List] on P.152 for "Common code".

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

* 1 Standard for NBR. For other material, conform to the standard.

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