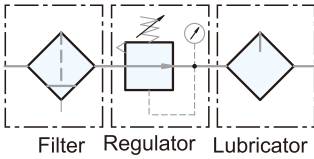


Symbol



Features

1. Remove water and particle effectively.
2. 40μm and 5μm filter element are easily interchangeable and replaceable.
3. Accurate and easy pressure setting.
4. Lubricator oil can be replenished without stopping air supply.
5. Oil spray in mist ensures good lubrication for machines.
6. Anti-acid & Alkali bowl and aluminum bowl provide excellent protection in organic chemistry working environments.
(Please contact our sales for more inquiries.)



*Lubricator oil (Recommended): ISO-VG32

How to order

UFRL	02	N	C	H	A	SB
F.R.L combination	Port size	Thread	Filtration	Drain	Bowl	Spacer block
Filter+Regulator +Lubricator	02 : 1/4" 03 : 3/8" 04 : 1/2" 06 : 3/4" 08 : 1"	Blank : G N : NPT R : Rc	PE Blank : 5μm C : 40μm Sintered brass S : 5μm T : 40μm	Blank : Semi-auto drain H : Manual drain D : Auto drain	Blank : Standard bowl A : Anti-acid & alkali bowl AL : Aluminum bowl	Blank : W/O spacer block SB : Spacer block

Please contact our sales for non-relieving type.

*For non-relieving type, the secondary pressure is not allowed to be exhausted when it is higher than setting pressure.

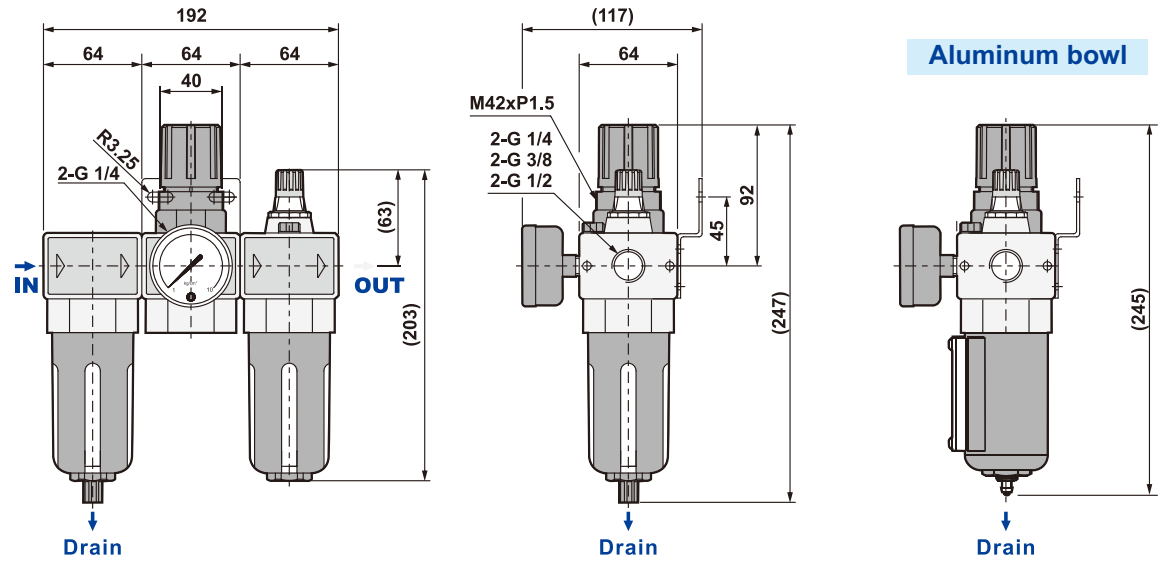
※Note: Please see page 1-85 for ordering spacer block separately.

Specifications

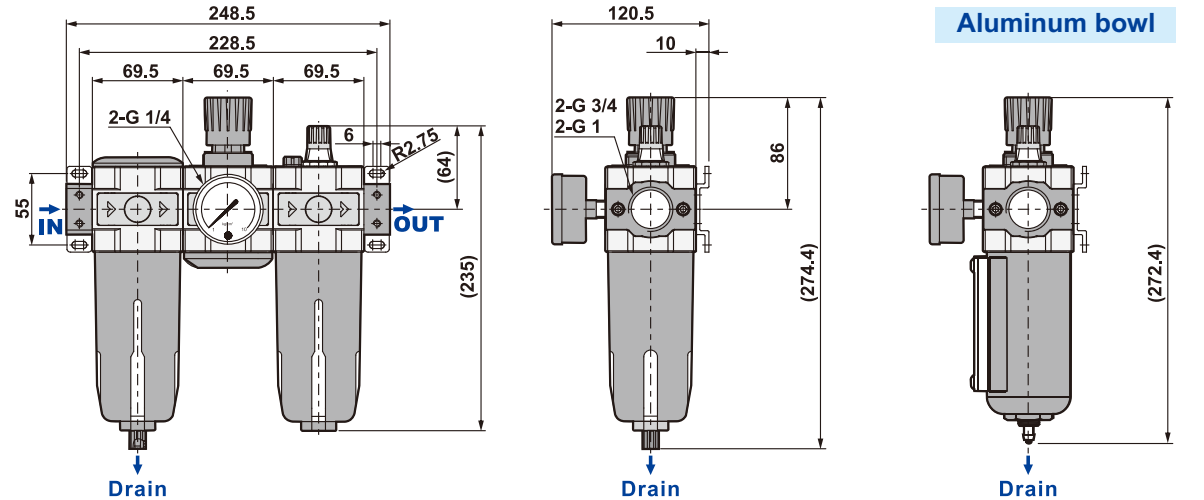
Model	UFRL-02	UFRL-03	UFRL-04	UFRL-06	UFRL-08
Port size	1/4"	3/8"	1/2"	3/4"	1"
Fluid	Compressed air				
Regulator construction	Piston				
Body material	Aluminum die-cast				
Bowl material	Polycarbonate (Standard), Anti-acid & alkali bowl (Option), Aluminum bowl (Option)				
Filtration	PE: 5μm (Standard),40μm (Option); Sintered brass(Option):5μm,40μm				
Operating pressure range	0.5 ~ 9.9 kgf/cm²				
Max. inlet pressure	15 kgf/cm²				
Max. flow rate l/min (ANR) 40μm	2080	2100	2600	7940	8200
Ambient temperature	-10℃ ~ 60℃				
Filter bowl capacity	105cc			210cc	
Lubricator bowl capacity	125cc			235cc	
Standard drain	Semi-auto drain (Drains below 0.5kgf/cm²)				
Net weight	1800g (Al bowl 2400g)			2650g (Al bowl 3350g)	
Accessories	Pressure gauge, Mounting bracket set, Plug				

Dimensions

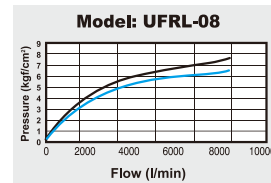
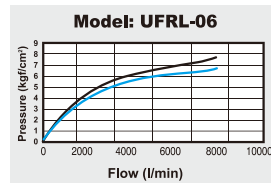
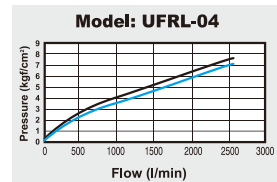
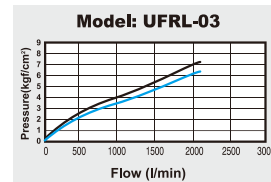
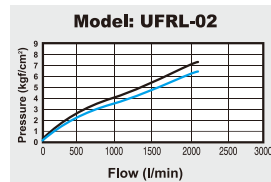
UFRL-02, 03, 04



UFRL-06, 08



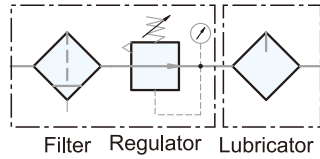
Flow chart



Note:

X axis: Flow (l/min)
Y axis: Pressure (kgf/cm²)
Blue line (P0) = Outlet pressure
Black line (P1) = Inlet pressure
P1-P0 = Pressure range

Symbol



Features

1. Remove water and particle effectively.
2. 40μm and 5μm filter element are easily interchangeable and replaceable.
3. Accurate and easy pressure setting.
4. Lubricator oil can be replenished without stopping air supply.
5. Oil spray in mist ensures good lubrication for machines.
6. Anti-acid & Alkali bowl and aluminum bowl provide excellent protection in organic chemistry working environments.
(Please contact our sales for more inquiries.)



*Lubricator oil (Recommended): ISO-VG32

How to order

UFR/L – 02 N C H A SB						
F.R.L combination	Port size	Thread	Filtration	Drain	Bowl	Spacer block
Filter Regulator +Lubricator	02 : 1/4" 03 : 3/8" 04 : 1/2" 06 : 3/4" 08 : 1"	Blank : G N : NPT R : Rc	PE Blank : 5μm C : 40μm Sintered brass S : 5μm T : 40μm	Blank : Semi-auto drain H : Manual drain D : Auto drain	Blank : Standard bowl A : Anti-acid & alkali bowl AL : Aluminum bowl	Blank : W/O spacer block SB : Spacer block

Please contact our sales for non-relieving type.

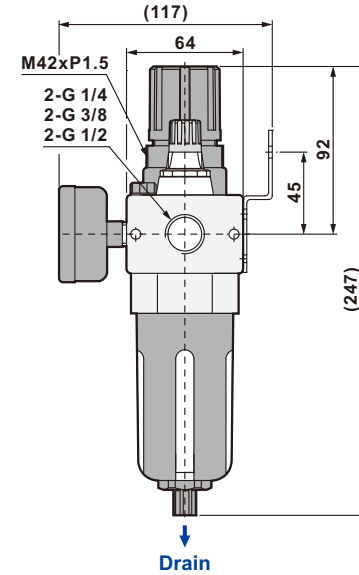
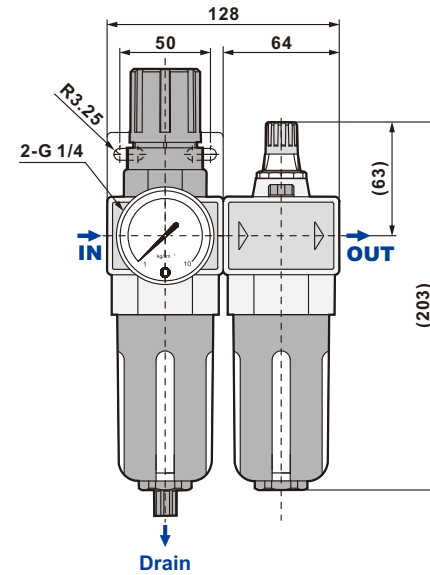
*For non-relieving type, the secondary pressure is not allowed to be exhausted when it is higher than setting pressure.

Specifications

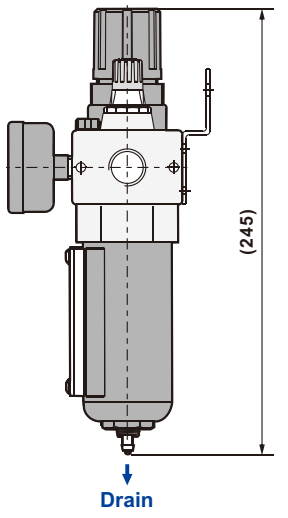
Model	UFR/L-02	UFR/L-03	UFR/L-04	UFR/L-06	UFR/L-08
Port size	1/4"	3/8"	1/2"	3/4"	1"
Fluid	Compressed air				
Regulator construction	Piston				
Body material	Aluminum die-cast				
Bowl material	Polycarbonate (Standard), Anti-acid & alkali bowl (Option), Aluminum bowl (Option)				
Filtration	PE: 5μm (Standard),40μm (Option); Sintered brass(Option):5μm,40μm				
Operating pressure range	0.5 ~ 9.9 kgf/cm ²				
Max. inlet pressure	15 kgf/cm ²				
Max. flow rate l/min (ANR) 40μm	2080	2100	2600	7940	8200
Ambient temperature	-10℃ ~ 60℃				
Filter bowl capacity	105cc			210cc	
Lubricator bowl capacity	125cc			235cc	
Standard drain	Semi-auto drain (Drains below 0.5kgf/cm ²)				
Net weight	1480g (Al bowl 2080g)			2145g (Al bowl 2845g)	
Accessories	Pressure gauge, Mounting bracket set, Plug				

Dimensions

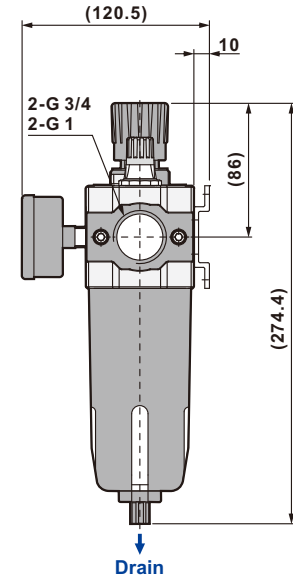
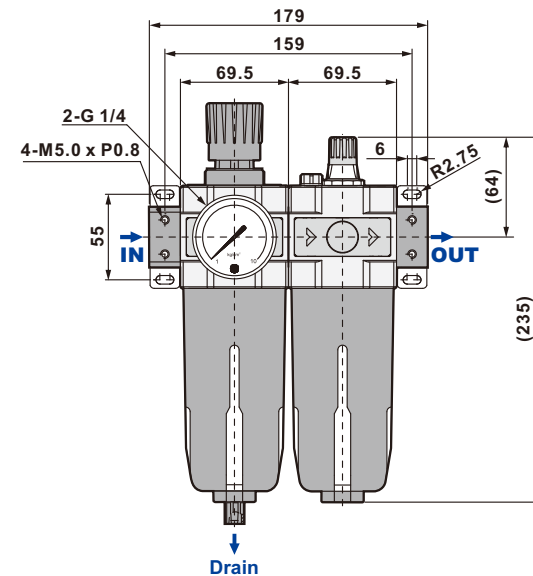
UFR/L-02, 03, 04



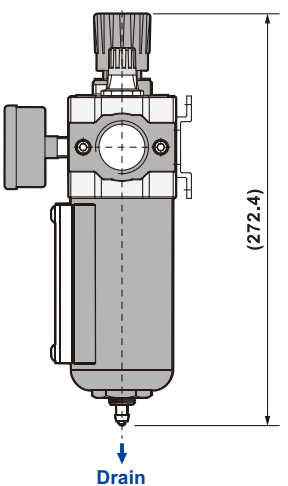
Aluminum bowl



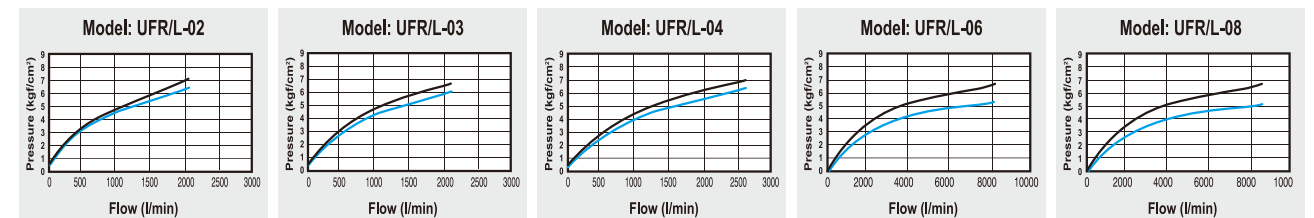
UFR/L-06, 08



Aluminum bowl



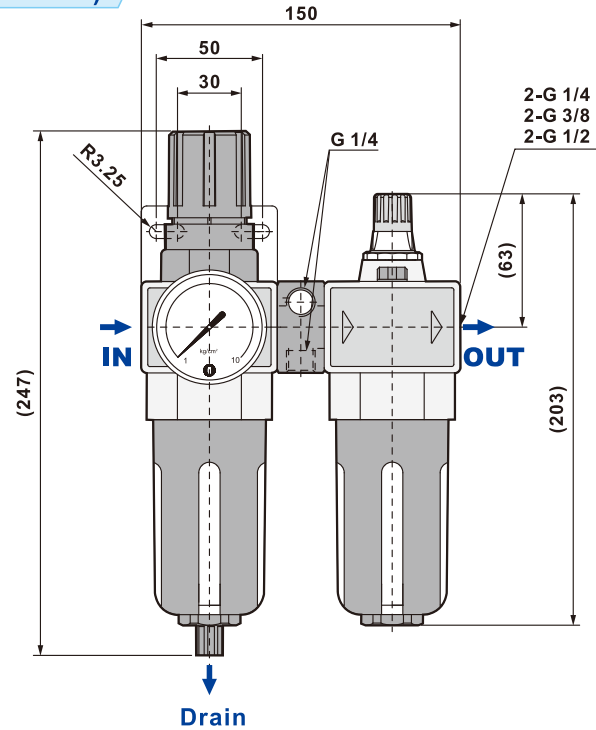
Flow chart



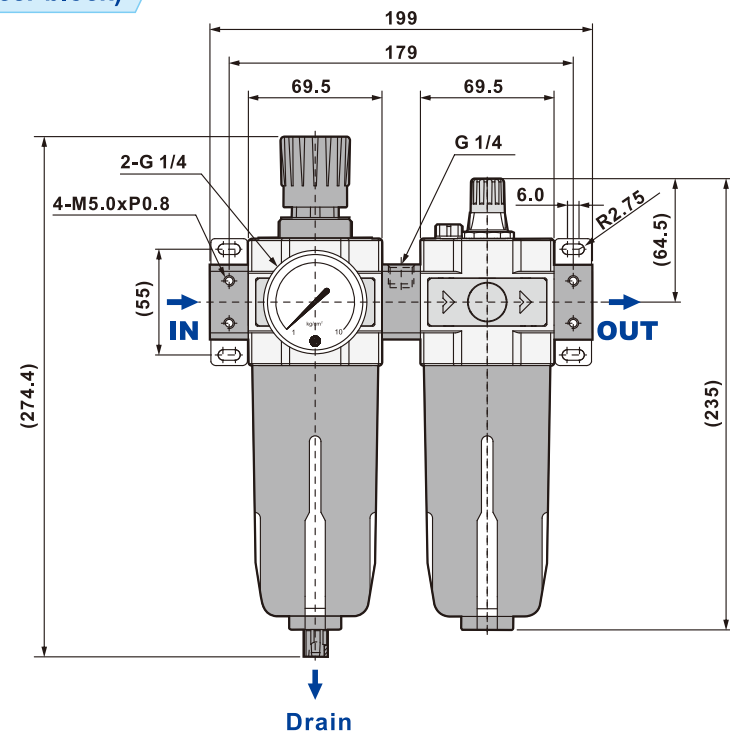
Note: X axis: Flow (l/min), Y axis: Pressure (kgf/cm²), Blue line (P0) = Outlet pressure, Black line (P1) = Inlet pressure, P1-P0= Pressure range

■ Dimensions

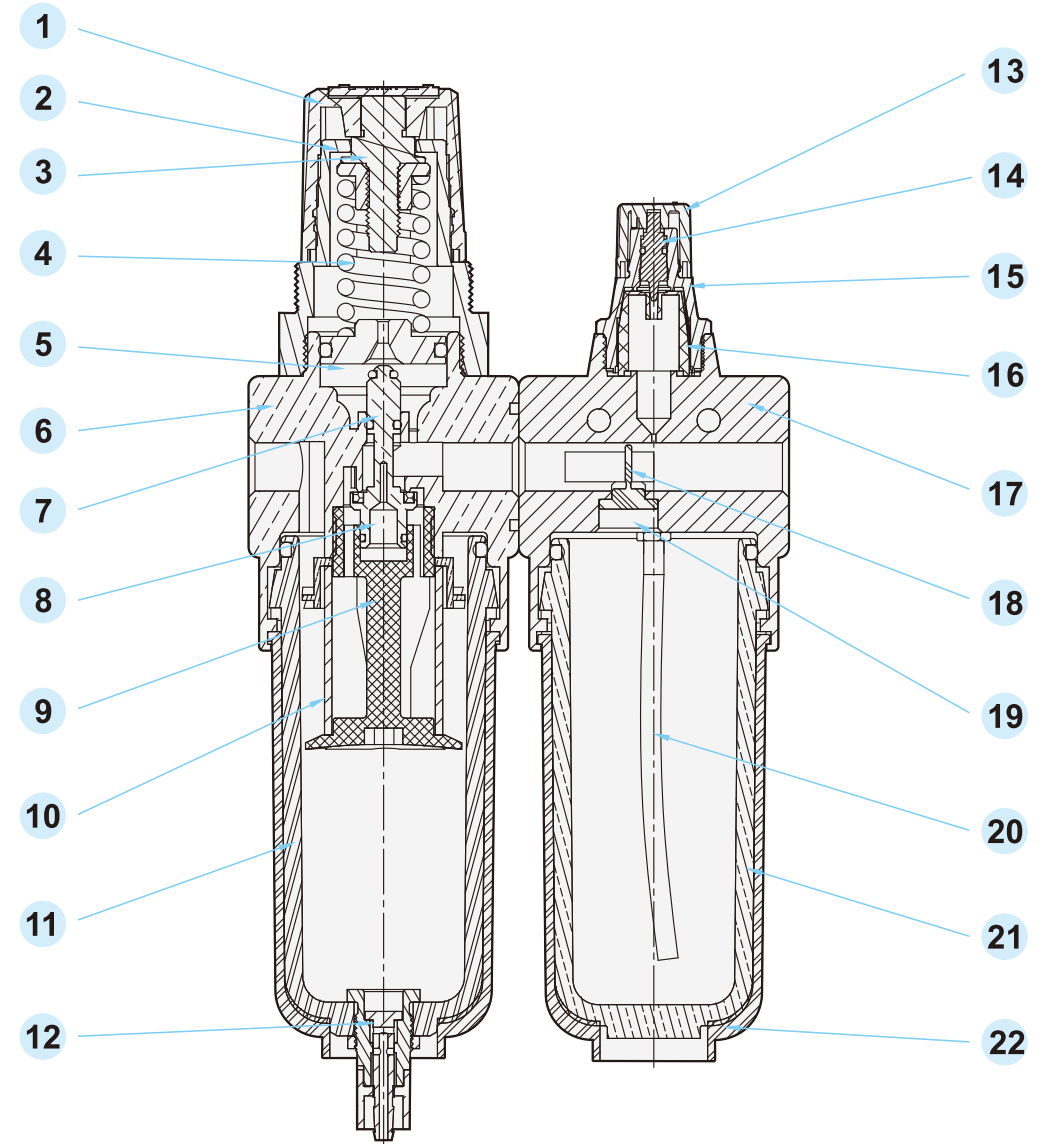
UFR/L-02, 03, 04SB(Spacer block)



UFR/L-06, 08SB(Spacer block)



■ Construction (UFR/L-02,03,04)

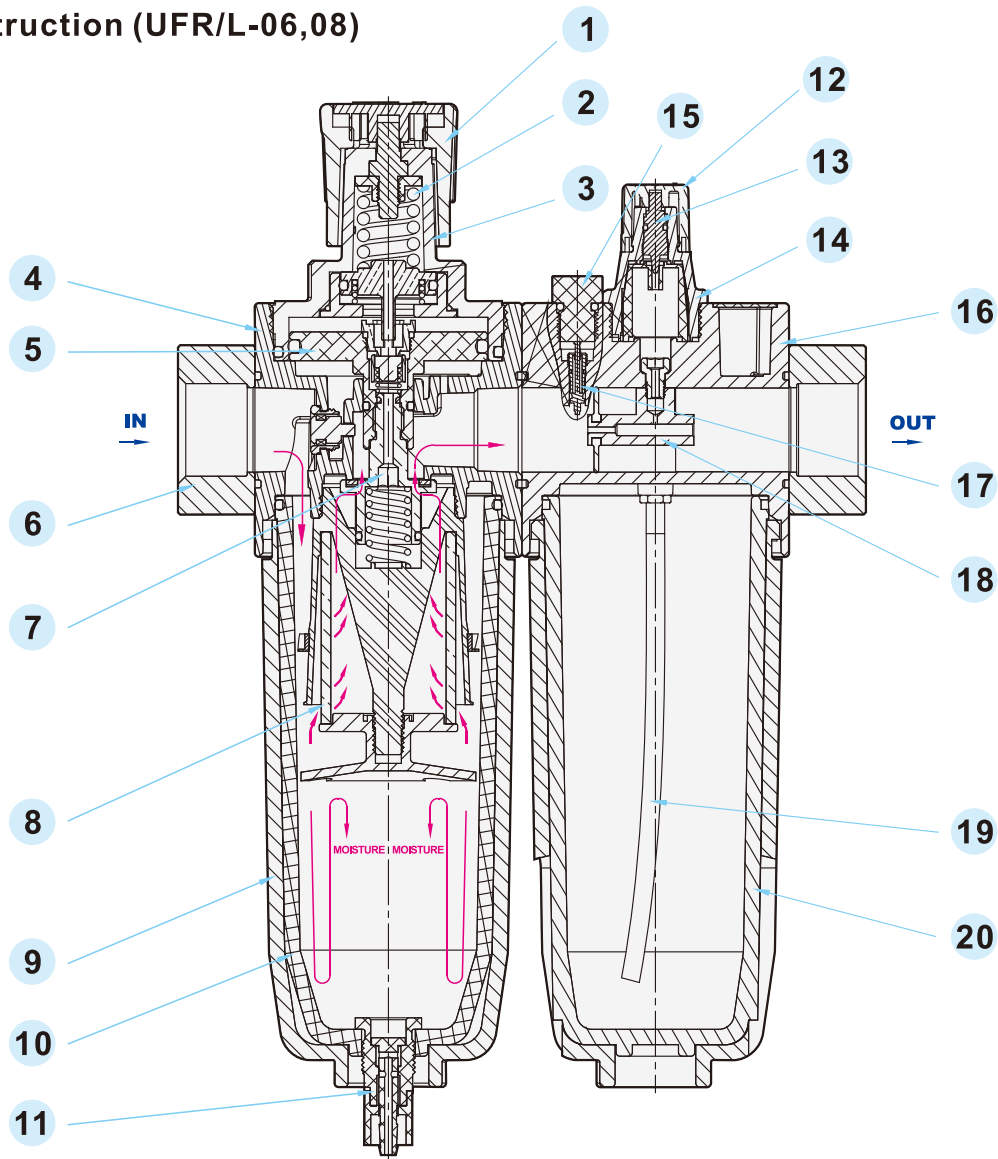


No.	Description	Material	No.	Description	Material
1	Pressure regulating knob	NY	12	Semi-auto drain	POM
2	Regulator base	NY+GF	13	Oil adjusting knob	POM
3	Pressure regulating screw	Fe+Ni	14	Oil adjusting screw	Cu+Ni
4	Pressure regulating spring	Spring steel+Ni	15	Oil viewer	GV4H
5	Piston	Cu+Ni	16	Oil dropping orifice	PC
6	Regulator body	ADC12	17	Lubricator body	ADC12
7	Regulating needle	Cu+NBR	18	Damper	PU
8	Spring	SUS304	19	Plug	Cu
9	Filter element holder	NY	20	Oil pipe	PU
10	Filter element	PE	21	Lubricator bowl	PC
11	Filter bowl	PC	22	Bowl guard	NY

U Series F.R.L Combination

Filter Regulator + Lubricator (2 units style)

Construction (UFR/L-06,08)

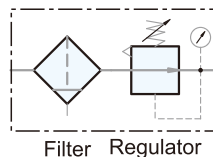


No.	Description	Material	No.	Description	Material
1	Pressure regulating knob	NY	11	Semi-auto drain	POM
2	Spring	Spring steel+Ni	12	Oil adjusting knob	POM
3	Regulator base	NY+GF	13	Oil adjusting screw	Cu+Ni
4	Regulator body	ADC12	14	Oil viewer	GV4H
5	Piston	AL	15	Oil filling plug	Cu+Ni
6	Adaptor	ADC12	16	Lubricator body	ADC12
7	Pressure regulating needle	Cu+NBR	17	Check valve	Cu
8	Filter element	PE	18	Oil nozzle	Cu
9	Bowl guard	NY+GF	19	Oil pipe	PU
10	Filter bowl	PC	20	Lubricator bowl	PC

Memo...



■ Symbol



■ Features

1. Remove water and particle effectively.
2. 40µm and 5µm filter element are easily interchangeable and replaceable.
3. Accurate and easy pressure setting.

■ How to order

UFR	—	02	N	C	H	A
Filter Regulator		Port size	Thread	Filtration	Drain	Bowl
		02 : 1/4"	Blank : G	PE	Blank : Semi-auto drain	Blank : Standard bowl
		03 : 3/8"	N : NPT	Blank : 5µm	H : Manual drain	A : Anti-acid & alkali bowl
		04 : 1/2"	R : Rc	C : 40µm	D : Auto drain	AL : Aluminum bowl
		06 : 3/4"		Sintered brass		
		08 : 1"		S : 5µm		
				T : 40µm		

Please contact our sales for non-relieving type.

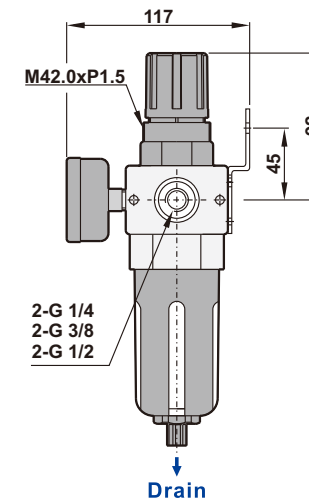
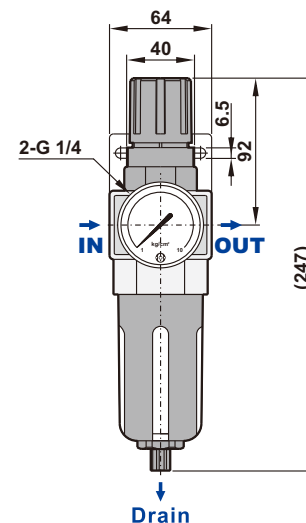
*For non-relieving type, the secondary pressure is not allowed to be exhausted when it is higher than setting pressure.

■ Specifications

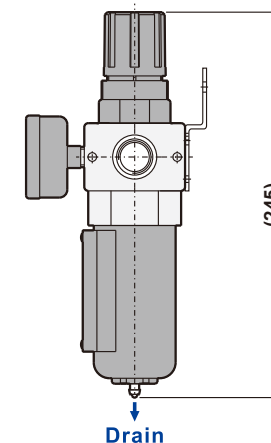
Model	UFR-02	UFR-03	UFR-04	UFR-06	UFR-08
Port size	1/4"	3/8"	1/2"	3/4"	1"
Fluid	Compressed air				
Regulator construction	Piston				
Body material	Aluminum die-cast				
Bowl material	Polycarbonate (Standard), Anti-acid & alkali bowl (Option), Aluminum bowl (Option)				
Filtration	PE: 5μm (Standard), 40μm (Option); Sintered brass(Option):5μm, 40μm				
Operating pressure range	0.5 ~ 9.9 kgf/cm ²				
Max. inlet pressure	15 kgf/cm ²				
Max. flow rate l/min (ANR) 40μm	2080	2100	2600	7940	8200
Ambient temperature	-10℃ ~ 60℃				
Filter bowl capacity	105cc			210cc	
Standard drain	Semi-auto drain (Drains below 0.5kgf/cm ²)				
Net weight	930g (Al bowl 1230g)			1360g (Al bowl 1710g)	
Accessories	Pressure gauge, Mounting bracket set, Plug				

■ Dimensions

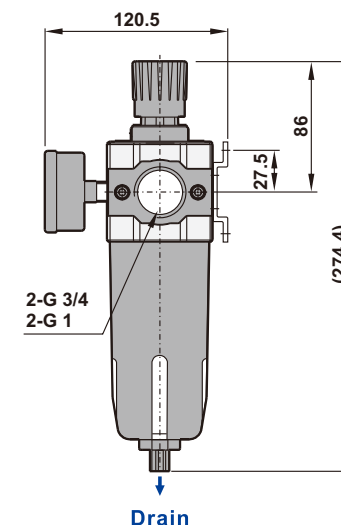
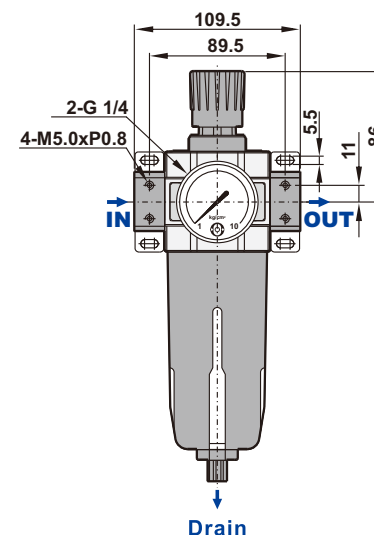
UFR-02, 03, 04



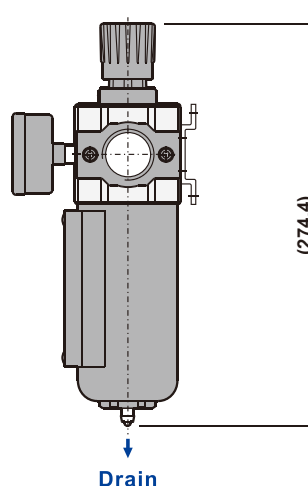
Aluminum bowl



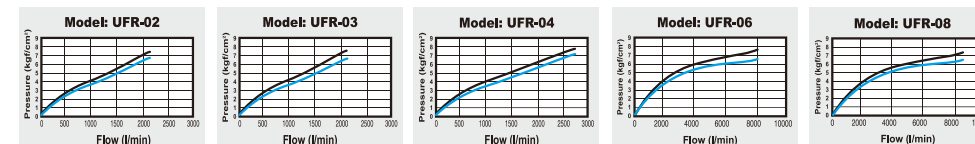
UFR-06, 08



Aluminum bowl



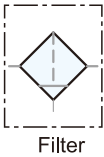
■ Flow chart



Note:

X axis: Flow (l/min)
Y axis: Pressure (kgf/cm²)
Blue line (P0) = Outlet pressure
Black line (P1) = Inlet pressure
P1-P0= Pressure range

Symbol



Features

1. Remove water and particle effectively.
2. 40μm and 5μm filter element are easily interchangeable and replaceable.



How to order

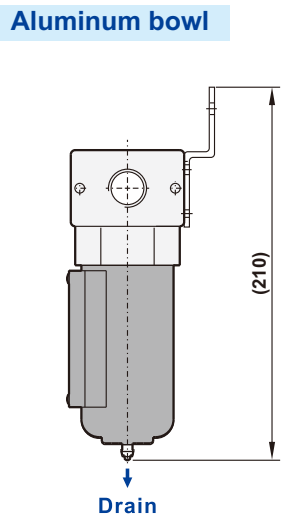
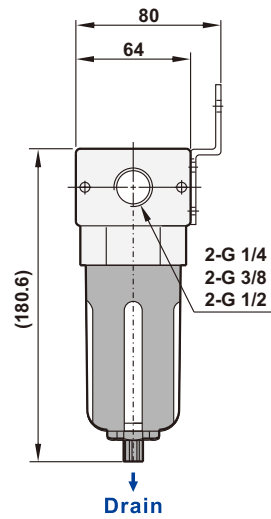
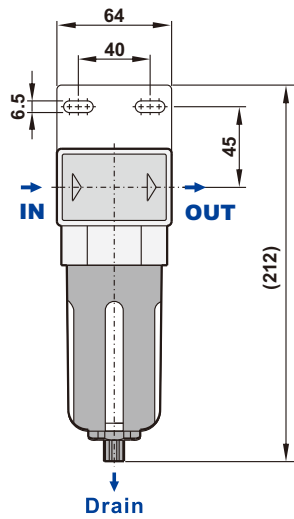
UF - 02	N	C	H	B	A	
Filter	Port size	Thread	Filtration	Drain	Mounting	Bowl
02 : 1/4"	Blank : G	PE	Blank : Semi-auto drain	Blank : W/O bracket	Blank : Standard bowl	
03 : 3/8"	N : NPT	Blank : 5μm	H : Manual drain	B : W/I bracket	A : Anti-acid & alkali bowl	
04 : 1/2"	R : Rc	C : 40μm	D : Auto drain		AL : Aluminum bowl	
06 : 3/4"		Sintered brass				
08 : 1"		S : 5μm				
		T : 40μm				

Specifications

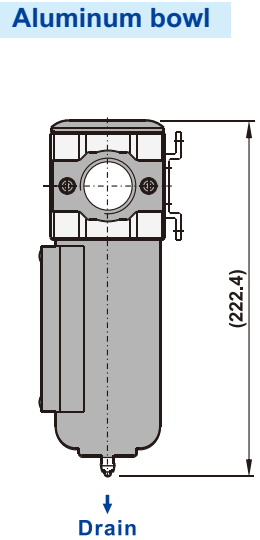
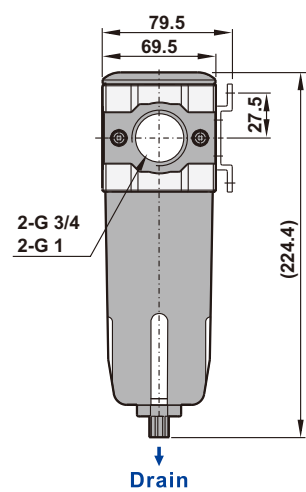
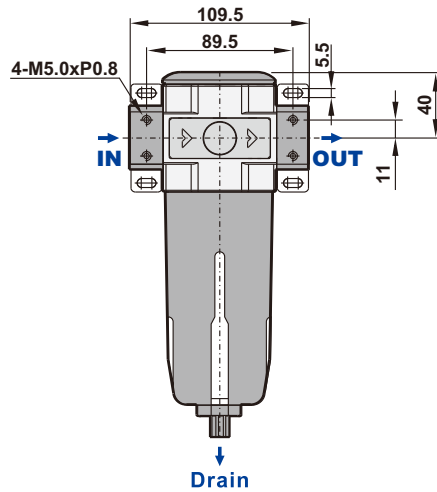
Model	UF-02	UF-03	UF-04	UF-06	UF-08
Port size	1/4"	3/8"	1/2"	3/4"	1"
Fluid	Compressed air				
Body material	Aluminum die-cast				
Bowl material	Polycarbonate (Standard), Anti-acid & alkali bowl (Option), Aluminum bowl (Option)				
Filtration	PE: 5μm (Standard), 40μm (Option); Sintered brass(Option):5μm, 40μm				
Operating pressure range	0.5 ~ 9.9 kgf/cm ²				
Proof pressure (Standard bowl)	15 kgf/cm ²				
Max. flow rate l/min (ANR) 40μm	2440	2450	3030	8250	8860
Ambient temperature	-10℃ ~ 60℃				
Filter bowl capacity	105cc			210cc	
Standard drain	Semi-auto drain (Drains below 0.5kgf/cm ²)				
Net weight	530g (Al bowl 830g)			1250g (Al bowl 1600g)	
Option	Mounting bracket set				

Dimensions

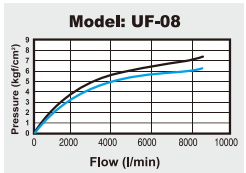
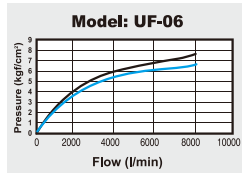
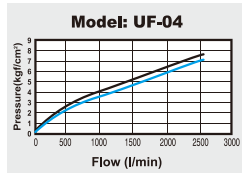
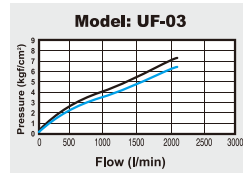
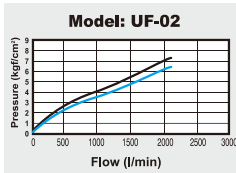
UF-02, 03, 04



UF-06, 08

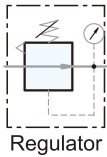


Flow chart



Note: X axis: Flow (l/min), Y axis: Pressure (kgf/cm²), Blue line (P0) = Outlet pressure, Black line (P1) = Inlet pressure, P1-P0= Pressure range

Symbol



Features

- 1. Accurate and easy pressure setting.
- 2. Panel mounting is available.



How to order

UR	02	N
Regulator	Port size	Thread
	02 : 1/4"	Blank : G
	03 : 3/8"	N : NPT
	04 : 1/2"	R : Rc
	06 : 3/4"	
	08 : 1"	

Please contact our sales for non-relieving type.

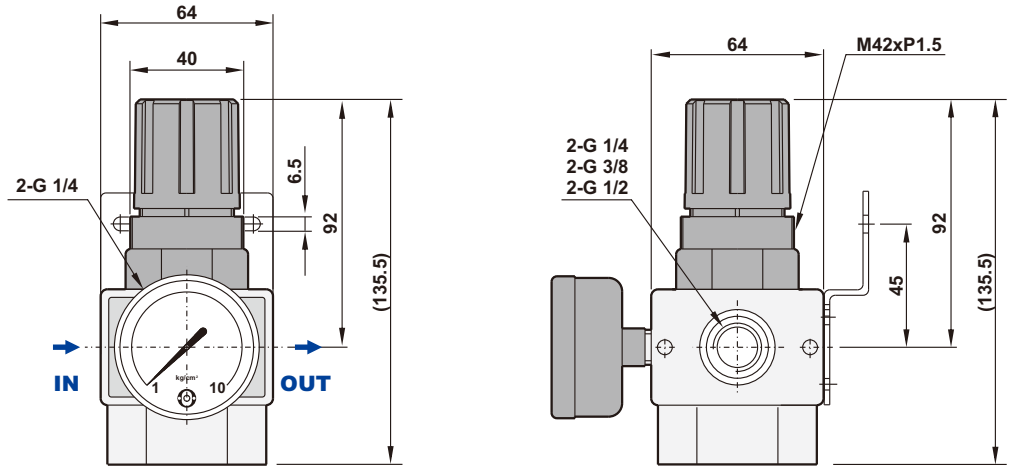
*For non-relieving type, the secondary pressure is not allowed to be exhausted when it is higher than setting pressure.

Specifications

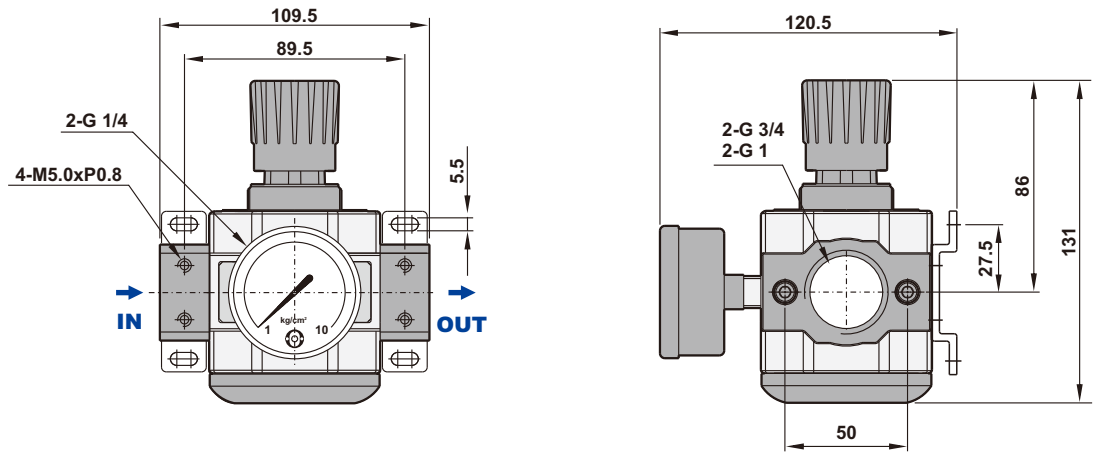
Model	UR-02	UR-03	UR-04	UR-06	UR-08
Port size	1/4"	3/8"	1/2"	3/4"	1"
Fluid	Compressed air				
Regulator construction	Piston				
Body material	Aluminum die-cast				
Operating pressure range	0 ~ 9.9 kgf/cm ²				
Max. inlet pressure	15 kgf/cm ²				
Max. flow rate l/min (ANR)	2100	2130	2750	8000	8500
Ambient temperature	-10°C ~ 60°C				
Net weight	740g	730g	720g	1250g	1240g
Accessories	Pressure gauge, Mounting bracket set, Plug				

Dimensions

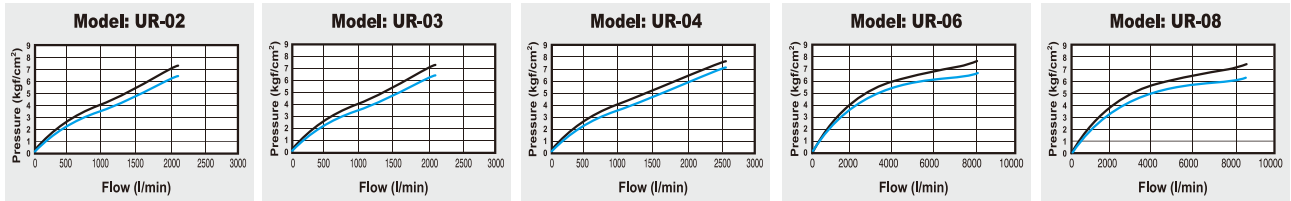
UR-02, 03, 04



UR-06, 08



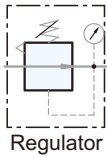
Flow chart



Note: X axis: Flow (l/min), Y axis: Pressure (kgf/cm²), Blue line (P0) = Outlet pressure, Black line (P1) = Inlet pressure, P1-P0= Pressure range

U Series 1 1/2", 2" REGULATOR

Symbol



Features

- 1. Large flow rate (Max. 30000 l/min)
- 2. Aluminum alloy body, light weight.
- 3. Pilot regulator is available for remote control.



UAR

UR

How to order

UR	14	N
Regulator	Port size	Thread
UR :Regulator	14 :1 1/2"	Blank :G
UAR :Pilot regulator	20 :2"	N :NPT
		R :Rc

Please contact our sales for non-relieving type.

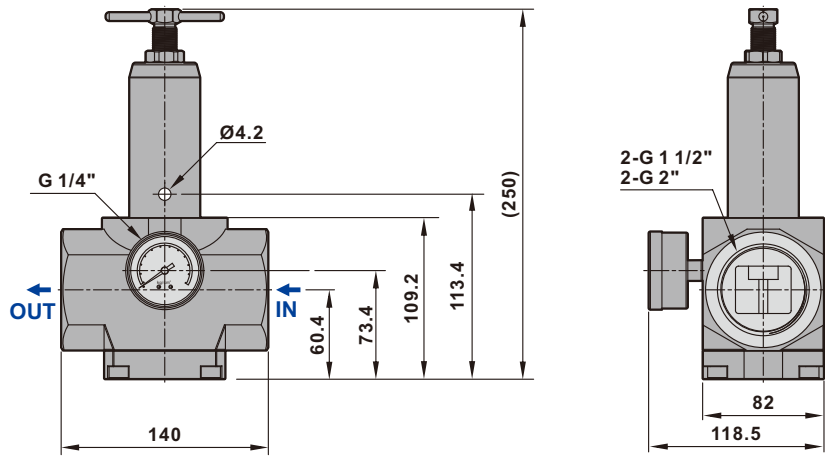
*For non-relieving type, the secondary pressure is not allowed to be exhausted when it is higher than setting pressure.

Specifications

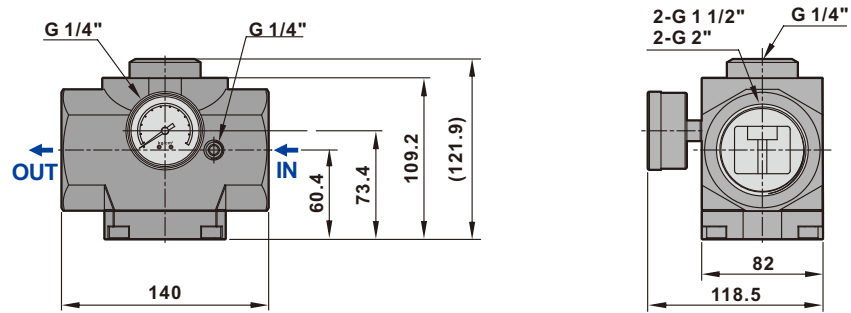
Model	UR-14	UR-20	UAR-14	UAR-20
Port size	1 1/2"	2"	1 1/2"	2"
Fluid	Compressed air			
Regulator construction	Piston			
Operating pressure range	0 ~ 8 kgf/cm ²			
Max. inlet pressure	15 kgf/cm ²			
Max. flow rate l/min (ANR)	30000 l/min (input 7 kgf/cm ² output 6 kgf/cm ²)			
Ambient temperature	-10°C ~ 60°C			
Net weight	2.8 kg	2.5 kg	2.2 kg	2.0 kg
Accessories	Pressure gauge, plug			

Dimensions

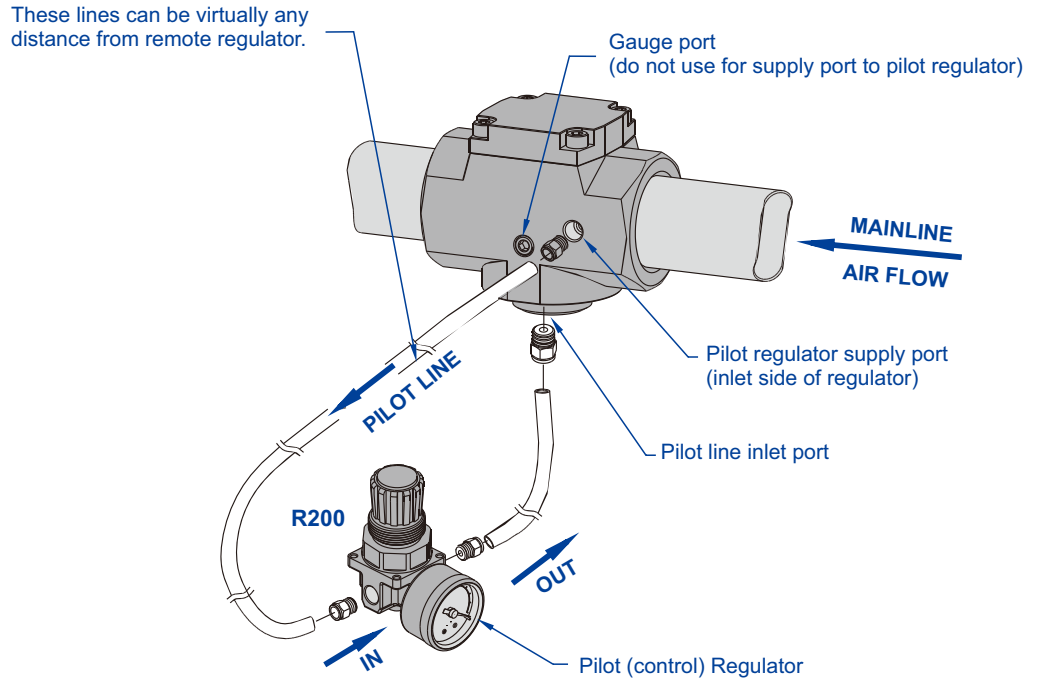
UR-14, 20



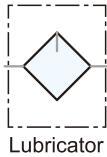
UAR-14, 20



Installation



Symbol



Features

- 1. Lubricator oil can be replenished without stopping air supply.
- 2. Oil spray in mist ensures good lubrication for machines.



*Lubricator oil (Recommended): ISO-VG32

How to order

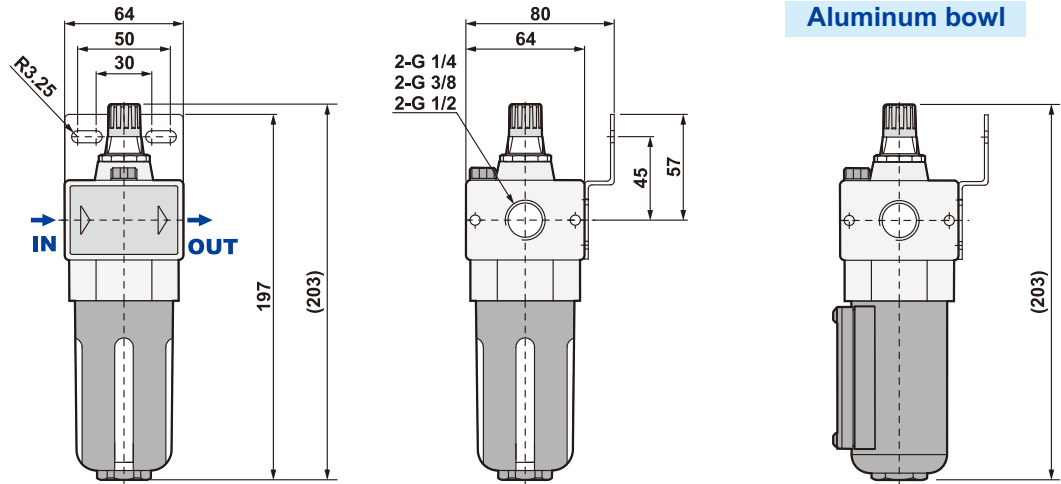
UL	02	N	B	A
Lubricator	Port size	Thread	Mounting	Bowl
	02 : 1/4"	Blank : G	Blank : W/O bracket	Blank : Standard bowl
	03 : 3/8"	N : NPT	B : W/I bracket	A : Anti-acid & alkali bowl
	04 : 1/2"	R : Rc		AL : Aluminum bowl
	06 : 3/4"			
	08 : 1"			

Specifications

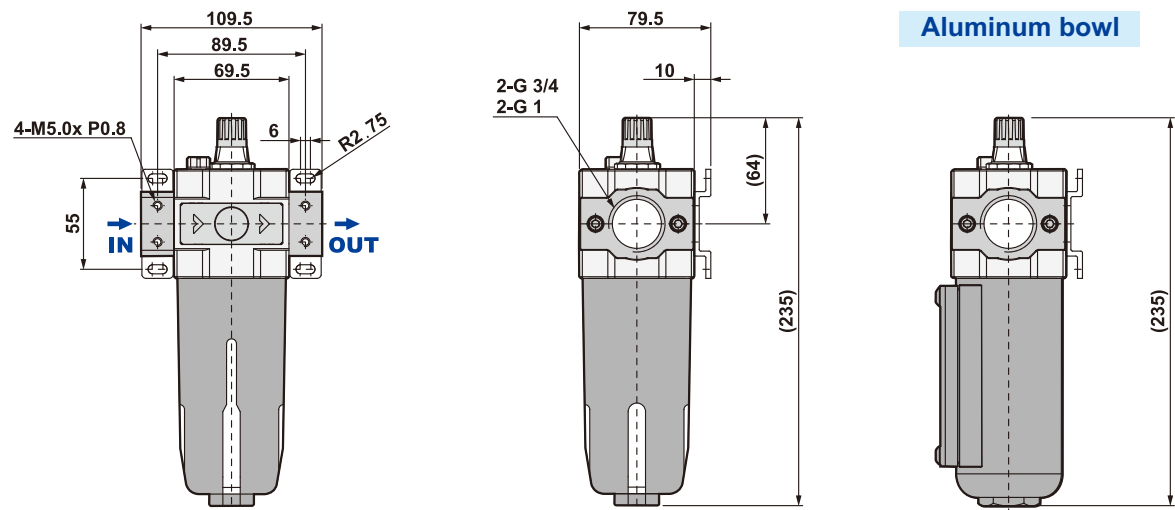
Model	UL-02	UL-03	UL-04	UL-06	UL-08
Port size	1/4"	3/8"	1/2"	3/4"	1"
Fluid	Compressed air				
Body material	Aluminum die-cast				
Bowl material	Polycarbonate (Standard), Anti-acid & alkali bowl (Option), Aluminum bowl (Option)				
Operating pressure range	0.5 ~ 9.9 kgf/cm ²				
Proof pressure (Standard bowl)	15 kgf/cm ²				
Max. flow rate l/min (ANR)	2490	2525	4310	8400	9000
Ambient temperature	-10°C ~ 60°C				
Lubricator bowl capacity	125cc			235cc	
Net weight	500g (Al bowl 800g)			1095g (Al bowl 1445g)	
Option	Mounting bracket set				

Dimensions

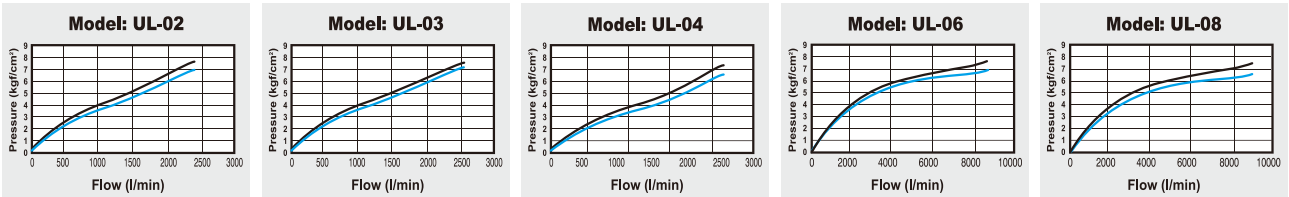
UL-02, 03, 04



UL-06, 08

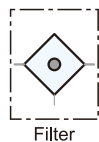


Flow chart



Note: X axis: Flow (l/min), Y axis: Pressure (kgf/cm²), Blue line (P0) = Outlet pressure, Black line (P1) = Inlet pressure, P1-P0= Pressure range

■ Symbol



■ Features

1. UMF series effectively removes oil, water, carbon and particle.
2. With 0.01μm glass fiber filter element.
3. High quality control ensures stable running and long life.
4. Convenient to see air quality from pressure indicator, prevent the filter element from clogging.

Note: Please install air filter UF series upstream to extend life of filter element.

■ How to order

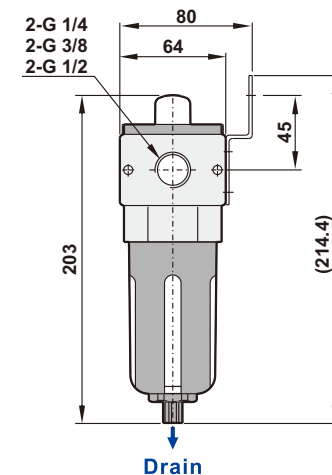
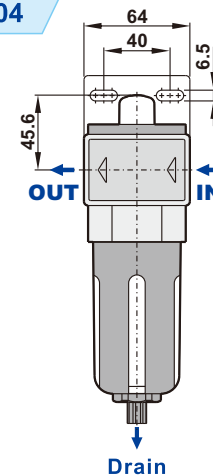
UMF	—	02	N	K	H	B	A
Coalescing Filter		Port size	Thread	Filtration	Drain	Mounting	Bowl
		02 : 1/4"	Blank : G	Blank : 0.01μm	Blank : Semi-auto drain	Blank : W/O bracket	Blank : Standard bowl
		03 : 3/8"	N : NPT	L : 0.1μm	H : Manual drain	B : W/I bracket	A : Anti-acid & alkali bowl
		04 : 1/2"	R : Rc	K : 0.01μm			AL : Aluminum bowl
		06 : 3/4"		Activated charcoal filter element			
		08 : 1"					

■ Specifications

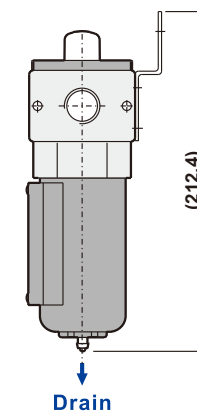
Model	UMF-02	UMF-03	UMF-04	UMF-06	UMF-08
Port size	1/4"	3/8"	1/2"	3/4"	1"
Fluid	Compressed air				
Body material	Aluminum die-cast				
Bowl material	Polycarbonate (Standard), Anti-acid & alkali bowl (Option), Aluminum bowl (Option)				
Filtration	0.01μm				
Operating pressure range	0.5 ~ 9.9 kgf/cm ²				
Proof pressure (Standrd bowl)	15 kgf/cm ²				
Max. flow rate l/min(ANR)	2050	2100	2150	3800	3850
Ambient temperature	-10℃ ~ 60℃				
Filter bowl capacity	65cc			115cc	
Standard drain	Semi-auto drain (Drains below 0.5kgf/cm ²)				
Net weight	600g (Al bowl 900g)			1200g (Al bowl 1550g)	
Option	Mounting bracket set				

■ Dimensions

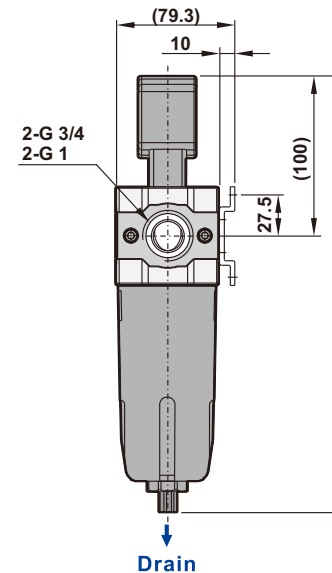
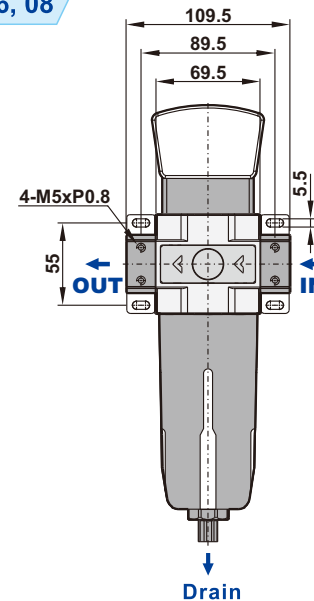
UMF-02, 03, 04



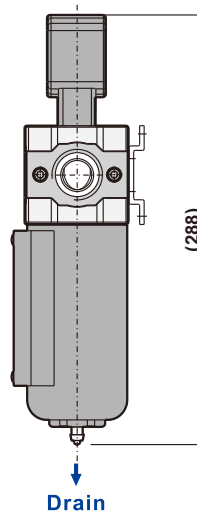
Aluminum bowl



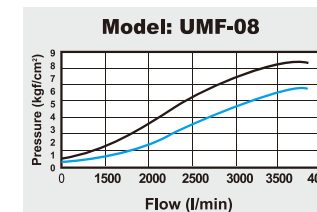
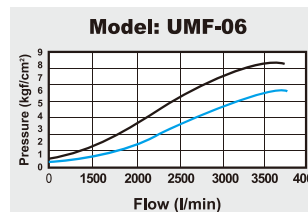
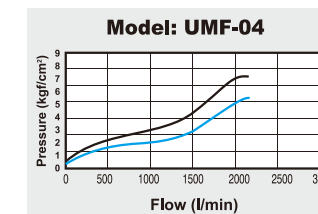
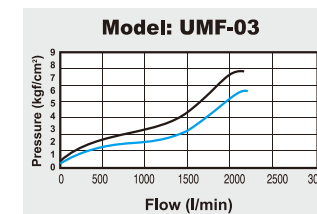
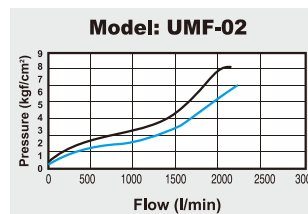
UMF-06, 08



Aluminum bowl



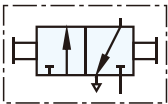
■ Flow chart



■ Note:

X axis: Flow (l/min)
Y axis: Pressure (kgf/cm²)
Blue line (P0) = Outlet pressure
Black line (P1) = Inlet pressure
P1-P0= Pressure range

■ Features



■ Features

- 1. The valve cut air source effectively and quickly.
- 2. Hole lockable design to increase safety.
- 3. Positioning mechanism ensures to cut air supply entirely.
- 4. See following drawing for connection with FRL.



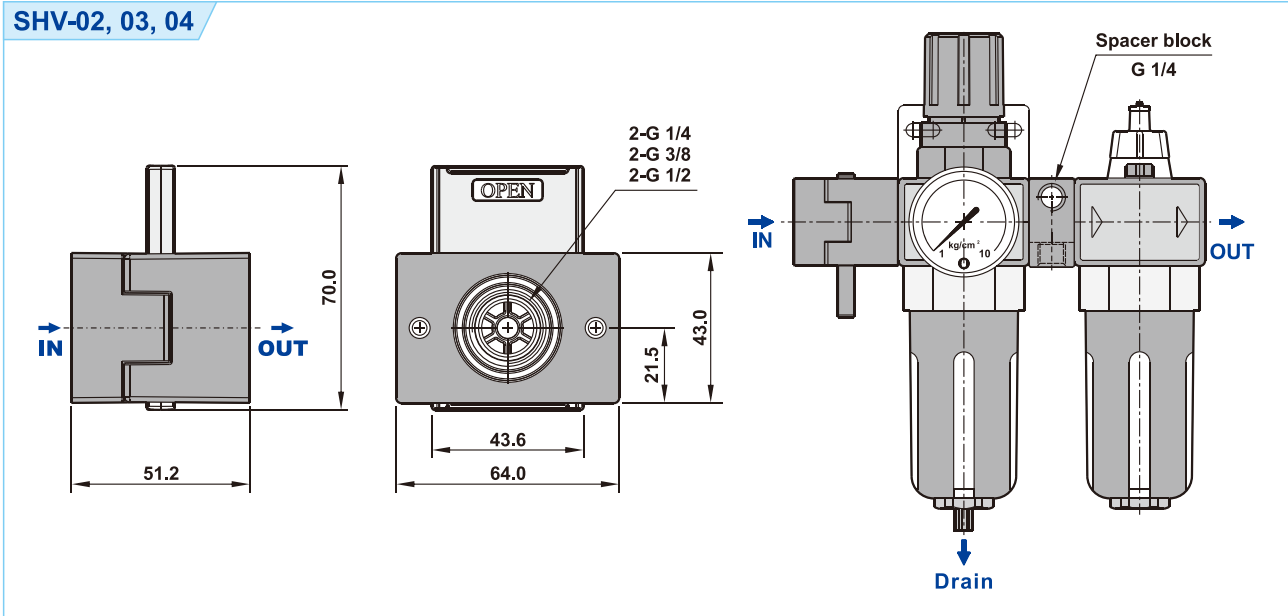
■ How to order

SHV	—	02	N
Shut-off Valve	Port size	Thread	
	02 : 1/4"	Blank : G	
	03 : 3/8"	N : NPT	
	04 : 1/2"	R : Rc	

■ Specifications

Model	SHV-02	SHV-03	SHV-04
Port size	1 / 4"	3 / 8"	1 / 2"
Fluid	Compressed air		
Body material	Aluminum die-cast		
Shut-off panel material	Polycarbonate		
Operating pressure range	0.5 ~ 12 kgf/cm ²		
Max. inlet pressure	15 kgf/cm ²		
CV value	4.0	8.0	8.0
Ambient temperature	-10℃ ~ 60℃		
Net weight	350g		

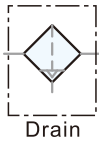
■ Dimensions



Memo...



Symbol



Features

- 1. AD940 series effectively and quickly drains water.
- 2. Special internal construction prevents vacuum occurred.



How to order

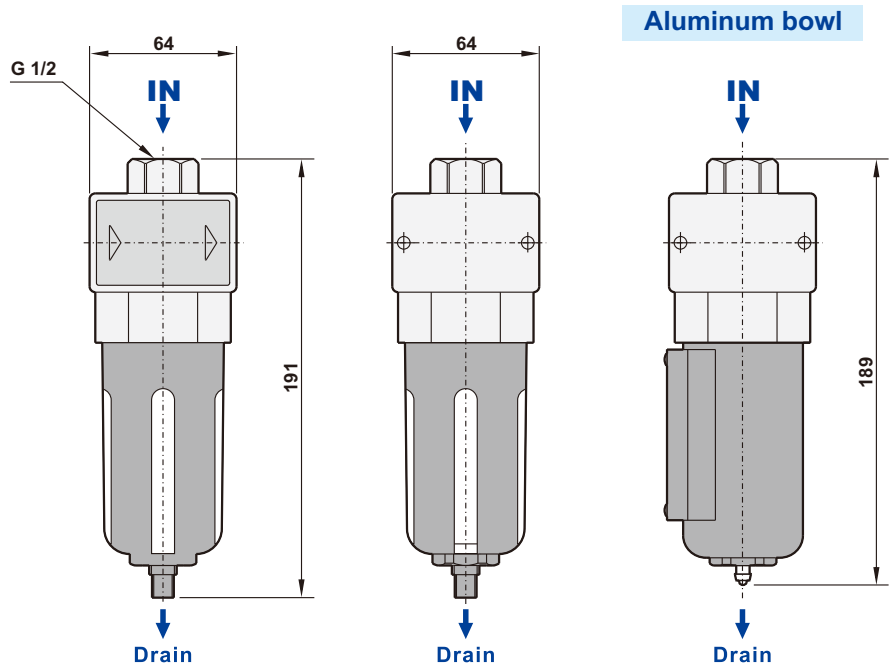
AD940	—	04	N	A
Automatic Drain		Port size	Thread	Bowl
		04 : 1/2"	Blank : G	Blank : Standard bowl
		06 : 3/4"	N : NPT	A : Anti-acid & Alkali bowl
		08 : 1"	R : Rc	AL : Aluminum bowl

Specifications

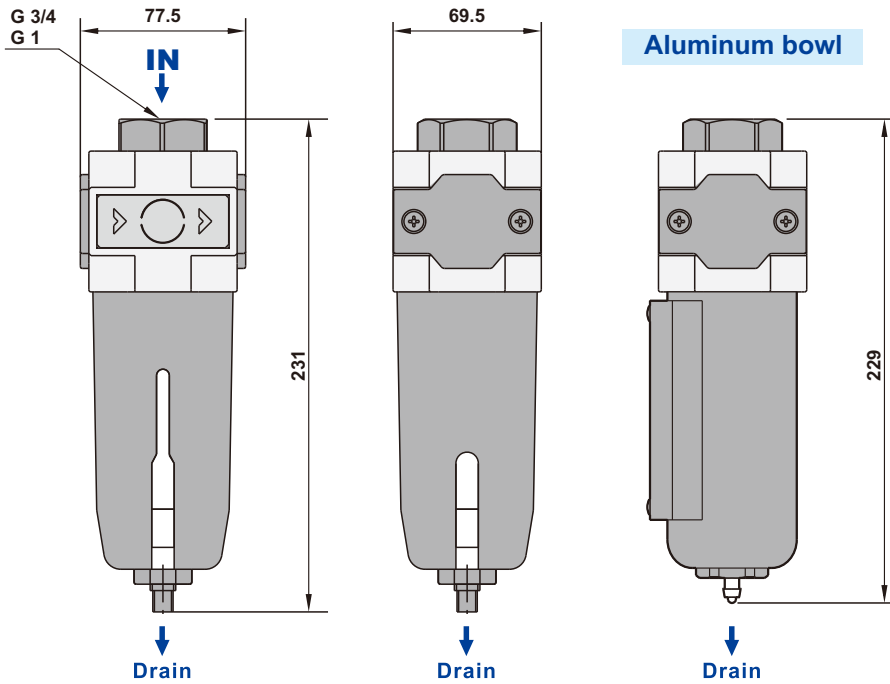
Model	AD940-04	AD940-06	AD940-08
Port size	1/2"	3/4"	1"
Fluid	Compressed air		
Body material	Aluminum die-cast		
Bowl material	Polycarbonate (Standard), Aluminum bowl (Option)		
Operating pressure range	0.5 ~ 10 kgf/cm ²		
Proof pressure (Standard bowl)	12 kgf/cm ²		
Ambient temperature	-10℃ ~ 60℃		
Filter bowl capacity	105cc	210cc	
Net weight	500g (Al bowl 800g)	850g (Al bowl 1200g)	

Dimensions

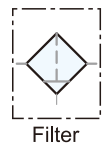
AD940-04



AD940-06, 08



■ Symbol



■ Features

- 1. UV series removes particle effectively.
- 2. 40µm and 5µm filter element are easily interchangeable and replaceable.



■ How to order

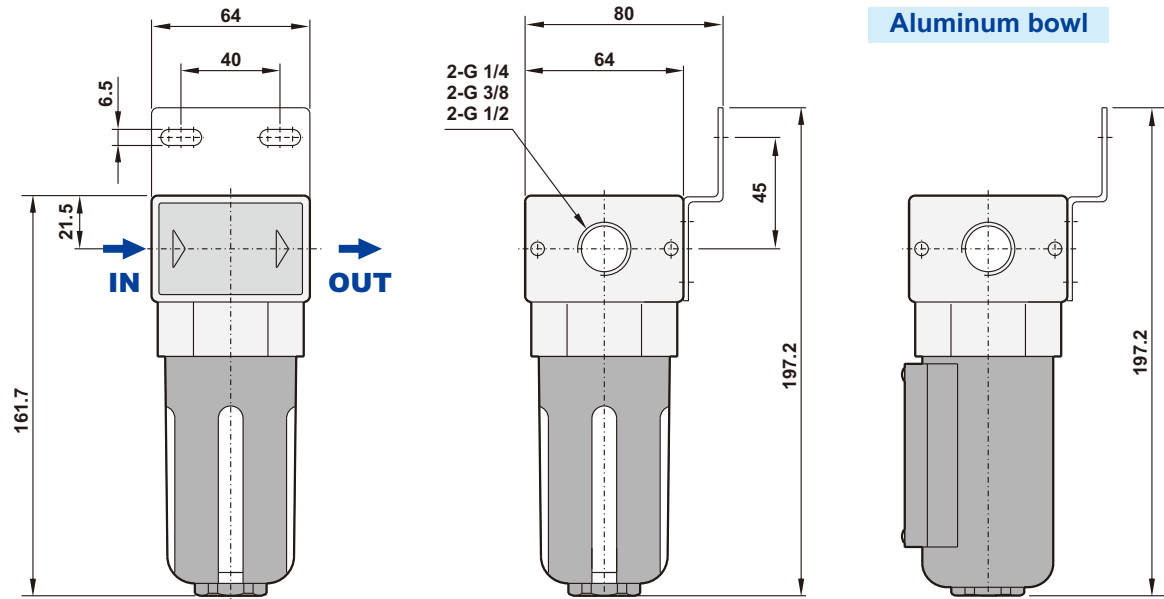
UV	–	02	N	C	B	A
Vacuum Filter		Port size	Thread	Filtration	Mounting	Bowl
		02 : 1/4"	Blank : G	PE	Blank : W/O bracket	Blank : Standard bowl
		03 : 3/8"	N : NPT	Blank : 5µm	B : W/I bracket	A : Anti-acid & Alkali bowl
		04 : 1/2"	R : Rc	C : 40µm		AL : Aluminum bowl
				Sintered brass		
				S : 5µm		
				T : 40µm		

■ Specifications

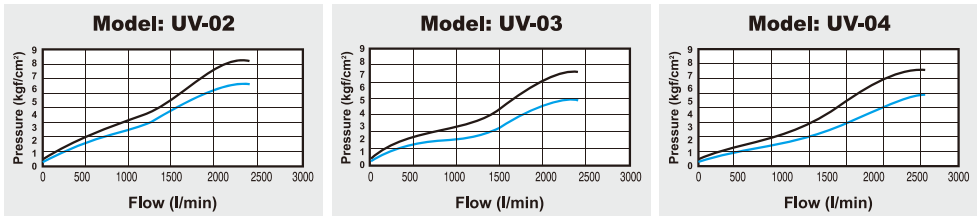
Model	UV-02	UV-03	UV-04
Port size	1/4"	3/8"	1/2"
Fluid	Compressed air		
Body material	Aluminum die-cast		
Bowl material	Polycarbonate (Standard)		
Filtration	5µm (Standard), 40µm (Option)		
Operating pressure range	-101.3kPa ~ 9.9 kgf/cm ²		
Proof pressure (Standard bowl)	15 kgf/cm ²		
Max. flow rate l/min (ANR)	2440	2450	3030
Ambient temperature	-10℃ ~ 60℃		
Filter bowl capacity	105cc		
Net weight	530g (Al bowl 830g)		
Option	Mounting bracket set		

■ Dimensions

UV-02, 03, 04



■ Flow chart



Note:
X axis: Flow (l/min)
Y axis: Pressure (kgf/cm²)
Blue line (P0) = Outlet pressure
Black line (P1) = Inlet pressure
P1-P0= Pressure range