

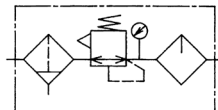
# FRL Series/C628, C668

Standard type

Air Filter + Air Pressure Regulator + Air Lubricator

- Standard combination of 3 features: filtering, pressure regulating, and air lubricating.
- Wide range of Port size from Rc $\frac{1}{4}$ ~1 to fit all customers' needs.
- Diverse ways to discharge water: automatic, drainmaster, spring drain, manual water drain.

**JIS Symbol**



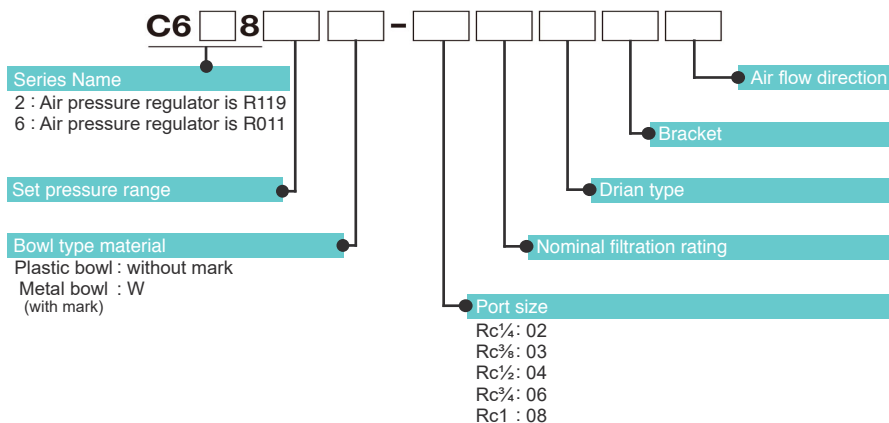
C628-03



C668W-03

## Specifications

Model No.		Unit	C628-02, 03	C628-04	C628-06, 08	C668-04
Port size			Rc $\frac{1}{4}$ , $\frac{3}{8}$	Rc $\frac{1}{2}$	Rc $\frac{3}{4}$ , 1	Rc $\frac{1}{2}$
Maximum operating pressure	Platic bowl	MPa[kgf/cm $^2$ ]	1 (10)		—	1 (10)
	Metal bowl (with mark)	MPa[kgf/cm $^2$ ]	1.2 (12)		1.2 (12)	1.2 (12)
Proof pressure	Platic bowl	MPa[kgf/cm $^2$ ]	1.5 (15)		—	1.5 (15)
	Metal bowl (with mark)	MPa[kgf/cm $^2$ ]	1.8 (18)		1.8 (18)	1.8 (18)
Operating temperature range	Platic bowl	°C	5~50		—	5~50
	Metal bowl (with mark)	°C	5~65		5~65	5~65
Nominal filtration rating		$\mu$ m	5 (standard)			
Capacity of filter bowl		cc	60	90	180	90
Set pressure range		MPa[kgf/cm $^2$ ]	0.02~0.75 (0.2~7.5) (standard)			
Minimum dropping flow rate		l/min (ANR)	About 30			
Capacity of Air lubricator bowl		cc	130	200	540	200
Recommended lubricant			(ISO VG32)			
Components	Air filter		F602-02, 03	F602-04	F602-06, 08	F602-04
	Air pressure regulator		R119-02, 03	R119-04	R119-06, 08	R011-04
	Air lubricator		L606-02, 03	L606-04	L606-06, 08	L606-04
Weight		kg	1.78	1.96	5	7.6



- When the mark on the bowl is omitted, with Port size of 02~04 the suggested bowl material is plastic bowl, and with Port size of 06~08 the suggested bowl material is metal bowl (with mark).
- Please refer to symbol specification table and option table.

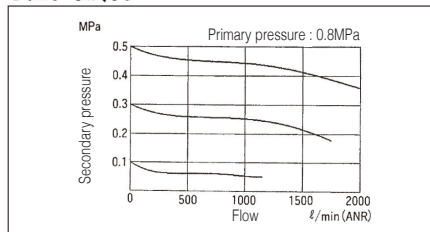
## Option

Model No.		Mark	C628-02, 03, 04	C628W-02, 03, 04	C628W-06, 08	C668-04	C668W-04
Bowl type material			Platic bowl	Metal bowl (with mark)		Platic bowl	Metal bowl (with mark)
Set pressure range	Standard pressure (0.02~0.75MPa)	Without mark	◎		◎		
	Low pressure (0.01~0.4MPa)	L	○		—		
Pressure relief mechanism	Pressure relief type	Without mark	◎			◎	
Nominal fittrion rating	5 μm	Without mark	◎				
	20 μm	N	○				
	40 μm	J	○				
Drain type	Manual	Without mark	◎	◎	◎	◎	
	Spring drain	Y	○	○	○	○	
	Automatic drain	M	○	○	○	○	
	Drainmaster	S	○	—	○	—	
Pressure gauge			Pressure gauge is a standard accessory				
Bracket	Standard	B	○			○	
Air flow direction	Left to Right	Without mark	◎				
	Right to Left	R	○				

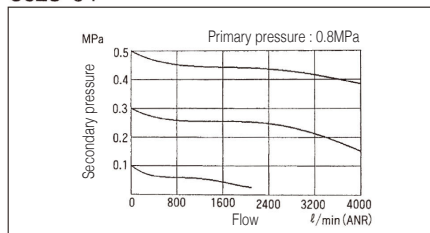
◎ Standard ○ Option

## Flow characteristics

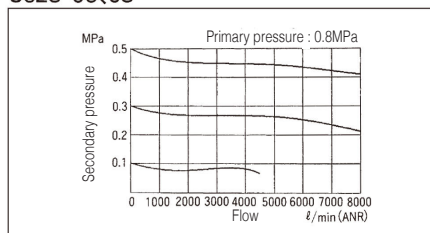
C628-02,03



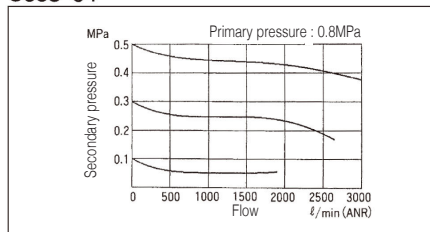
C628-04



C628-06,08

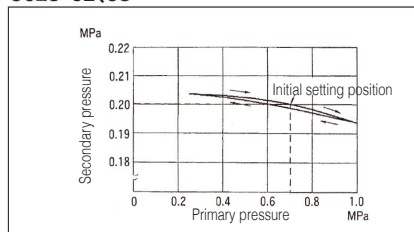


C668-04

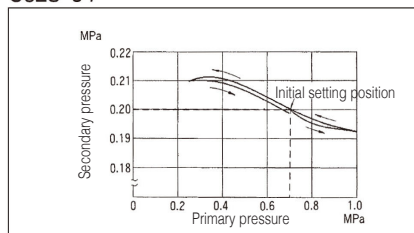


## Pressure characteristics

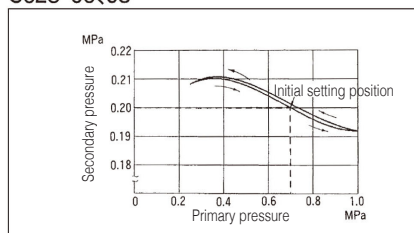
C628-02,03



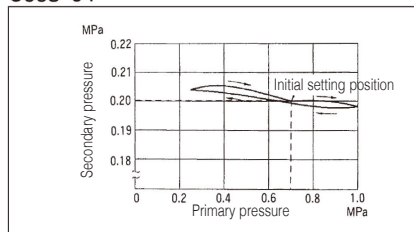
C628-04



C628-06,08

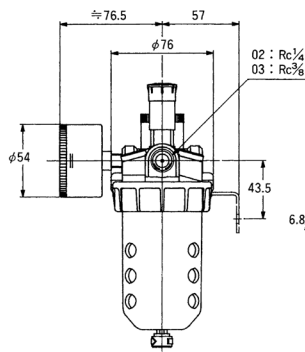
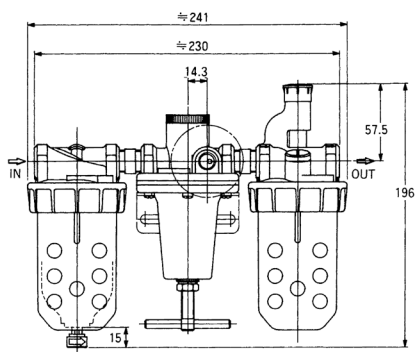


C668-04

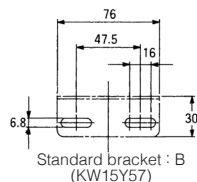


C628-02, 03

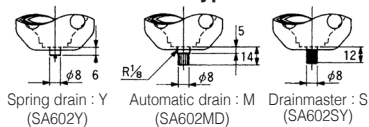
(Unit : mm)



**Bracket dimension**

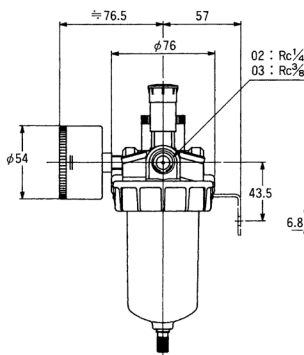
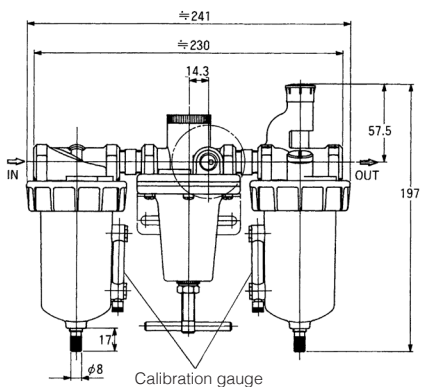


**Drain type**

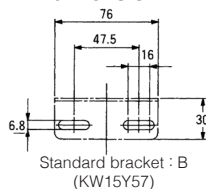


C628W-02, 03

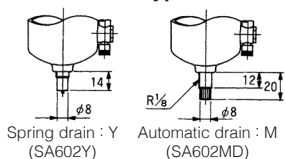
(Unit : mm)



**Bracket dimension**

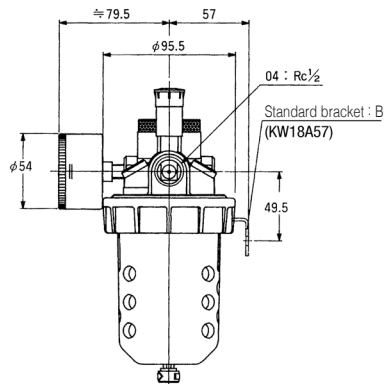
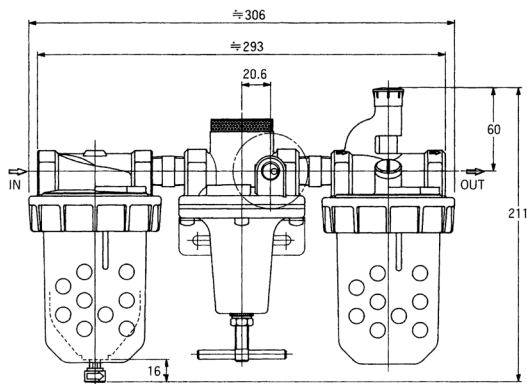


**Drain type**

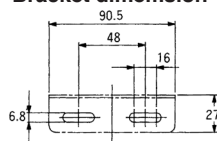


## C628-04

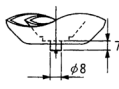
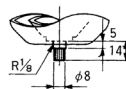
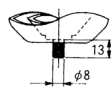
(Unit : mm)



## Bracket dimension

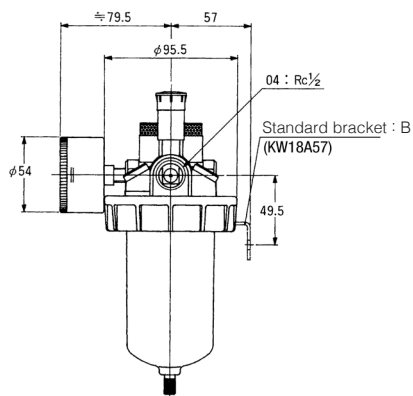
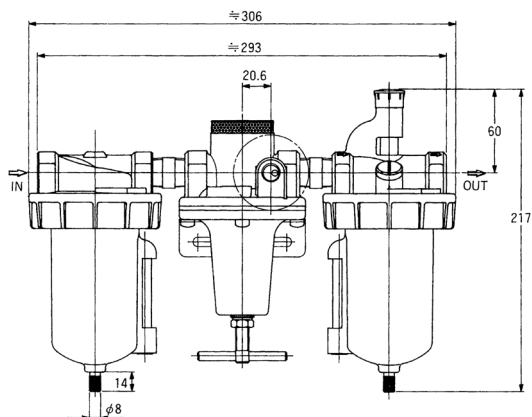


## Drain type

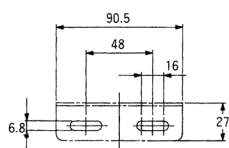
Spring drain : Y  
(SA602Y)Automatic drain : M  
(SA602MD)drainmaster : S  
(SA602SA)

## C628W-04

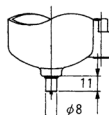
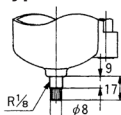
(Unit : mm)



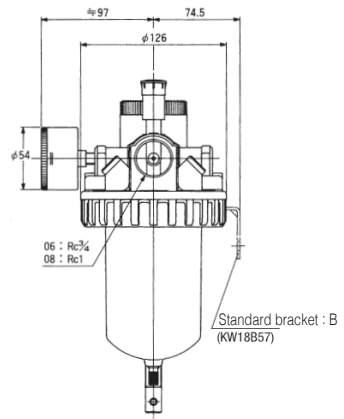
## Bracket dimension



## Drain type

Spring drain : Y  
(SA602Y)Automatic drain : M  
(SA602MD)

(Unit : mm)

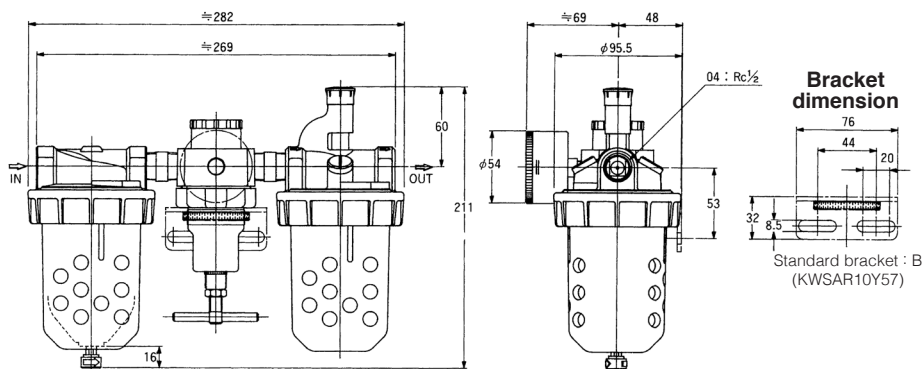


Technical drawing of a lamp. The drawing shows a side view of a lamp with a glass globe and a base. The height of the lamp is indicated as 13, and the diameter of the base is indicated as  $\phi 8$ .

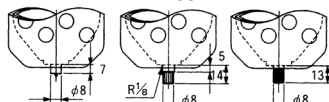
Automatic drain : M  
(SA602MD)

## C668-04

(Unit : mm)

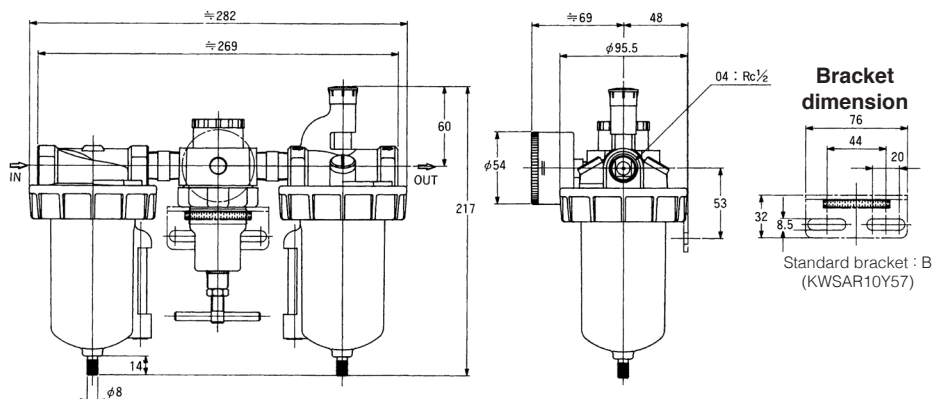


## Drain type

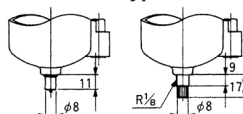
Spring drain : Y  
(SA602Y)Automatic drain : M  
(SA602MD)Drainmaster : S  
(SA602SA)

## C668W-04

(Unit : mm)



## Drain type

Spring drain : Y  
(SA602Y)Automatic drain : M  
(SA602MD)

## Precautions For Handling

When using pneumatic components, please obey JIS B8370-1988 (ISO 4414) general rules for pneumatic systems. Before operation, be sure to read the following precautions.

### Installation

- Thoroughly clean the inside of air pipe before installation.
- Install the bowl vertically to help drainage.
- Provide sufficient space for inspection and maintenance
- Avoid installing near air compressor. Installation should be centered around pneumatic components to prevent damage from vapor and oil.

### Maintenance

- When washing the sight glass of the bowl and air lubricator, be sure to use a detergent.
- Be sure to relieve residual air before detaching the bowl.
- Drain out the filter periodically.
- Choose turbine oil Class 1 (ISO VG32) or equivalent for lubrication.
- Avoid using spindle oil or machine oil for the plastic parts and O-ring may be corroded.
- Periodically clean and replace filter cartridge to ensure filtration effects.
- Examine the plastic bowls periodically to prevent cracking, damage, or aging.

### Operation

- When degraded sludge filter and micro mist filter is supplied with excess air flow, micro mist cannot be separated. Therefore, please supply airflow within the allowable range.
- When adjusting pressure regulator, pressure is raised when turned clockwise and is lowered; when turned counter-clockwise.
- When removing pressure gauge, please use proper hexagon wrench.
- Because there is quite a bit of water in the air, when using pressure regulator alone please have the adjustment knob faced down to help water vapor flow out so that stagnation can be prevented.
- Before installation, be sure to properly identify the inlet and outlet to avoid leakage and ineffectiveness.
- Secondary pressure needs to be lower than 85% of the primary pressure so that the amount of pressure drop would be not sufficient to cause its original effects.
- Using two shut off valve with high-low pressure propelling loop to exchange gas, do not use backflow-enabling type to avoid backflowing from occurrence.

### Caution

- As the transparent plastic parts are made of polycarbonate, they cannot be used in the following working environment or environment with chemicals. Please consult FONTAL before operating in these environments.
- Exposure directly under sunlight, strong wind, or environment where temperature may be impacted.
- When phosphate-ester or polyester is included in the compressor and it reaches the polycarbonate parts will cause cracking, damage, or aging.
- Environments with the following chemicals: synthetic oil, inorganic substances, organic substances, mineral oil, freon, cutting oil, clove oil, nutmeg oil. following precautions.