



## Preparation unit——A、 B Series

### ■ Production's series

<b>F.R.L Combination: AC, BC Series 154</b> 	<b>FR.L Combination: AFC, BFC Series 156</b> 	<b>Filter &amp; Regulator: AFR, BFR Series 158</b> 
<b>Filter: AF, BF Series 160</b> 	<b>Regulator: AR, BR Series 161</b> 	<b>Lubricator: AL, BL Series 163</b> 
<b>Regulator: SR Series 164</b> 	<b>Pressure gauge: GS, GF, GU Series 165</b> 	<b>Pressure controller: PK, AIS Series 166</b> 



A Series  
B Series

### ■ Installation and application

1. Check whether the components have been damaged during transportation before installing and using.
2. Pay attention to whether the flow direction of air (notice "→" direction) and thread type are correct.
3. Please notice whether installation condition accords with technical requirements (such as "working pressure" and "applied temperature range").
4. The medium used or installation environment shall be noticed. The matters with chlorine, carbon compound, aromatic compound and oxidizing acid and alkali shall be avoided to prevent the damage of bowl and oil bowl.
5. Regularly clean or change filter core. Lubricators and regulators shall be in descending order.
6. Keep dust away. The dust cover shall be installed in intake and outlet when the device is dismantled and stored.

# Preparation unit—F.R.L. combination



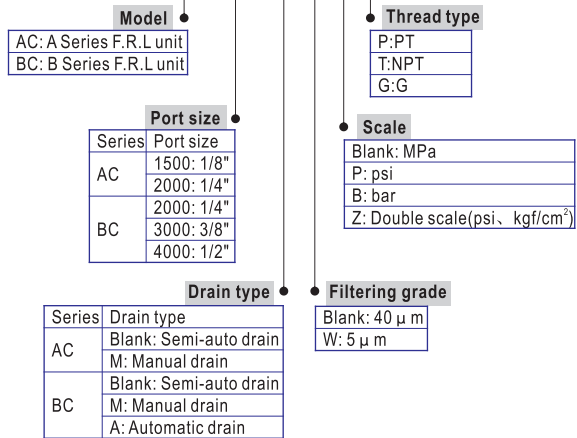
## AC、BC Series

### Specification

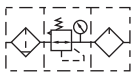
Model	AC1500	AC2000	BC2000	BC3000	BC4000	
Fluid	Air					
Port size	1/8"	1/4"	1/4"	3/8"	1/2"	
Filtering grade	40 μm or 5 μm					
Pressure range	Semi-auto and automatic drain: 0.15~0.9MPa(20~130Psi)		Manual drain: 0.05~0.9MPa(7~130Psi)			
Max. pressure	1.0MPa(145Psi)					
Proof pressure	1.5MPa(215Psi)					
Temperature range	-20~70°C					
Capacity of drain bowl	15CC		60CC			
Capacity of oil bowl	25CC		90CC			
Recommended	ISO VG 32 or equivalent					
Weight	700g		900g			
Constitute	Filter	AF1500	AF2000	BF2000	BF3000	BF4000
	Regulator	AR1500	AR2000	BR2000	BR3000	BR4000
	Lubricator	AL1500	AL2000	BL2000	BL3000	BL4000

### Ordering code

AC 2000 M W □ P



### Symbol

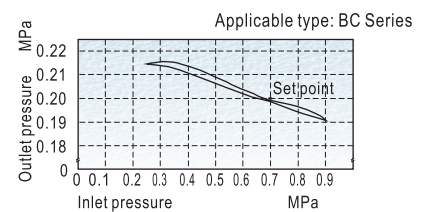
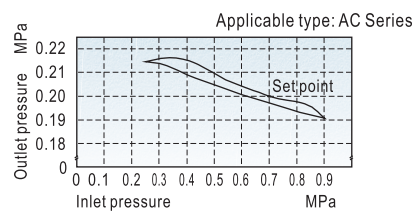


### Product feature

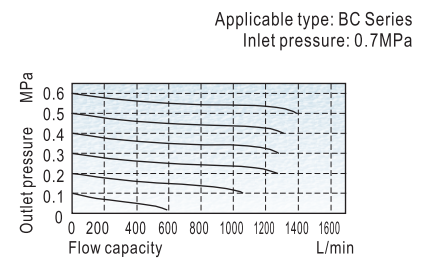
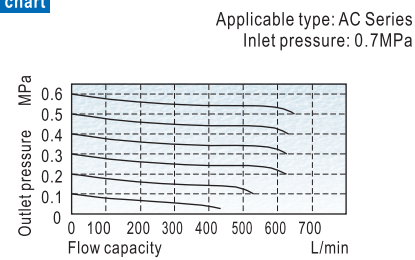
1. The structure is delicate and compact, which is convenient for installation and application.
2. The pressed-in self-locking mechanism can prevent the abnormal movement of the set pressure caused by external interfere.
3. The pressure loss is low and the efficiency of water separating is high.
4. The quantity of oil dripping can be directly observed through transparent check-dome.
5. In addition to standard type, lower pressure type is optional (The highest adjustable pressure is 0.4MPa).

### Pressure and feature of flow

#### Pressure chart



#### Flow chart



# Preparation unit—F.R.L. combination



## AC、BC Series

### Inner structure

**AC**

**BC**

No.	Item	No.	Item
1	AF, BF Series filter	5	A, B Series fix kit
2	A, B Series gasket	6	Screw
3	A, B Series bracket	7	AL, BL Series lubricator
4	AR, BR Series regulator		

### Selection of drain mode

A1500, 2000 Series		B2000, 3000, 4000 Series		
Manual drain	Semi-auto drain	Manual drain	Semi-auto drain	Automatic drain
	<p>This semi-auto drain can also achieve the function of manual drain</p>			
	<p>PU tube with an inner diameter of <math>\Phi 4\text{mm}</math> is recommended</p>			



### Dimensions

**AC**

AC 1500: 1/8"  
AC 2000: 1/4"  
Both sides

Semi-auto drain

Drain

**BC**

BC2000: 1/4"  
BC3000: 3/8"  
BC4000: 1/2"  
Both sides

Standard manual drain

Drain

Automatic drain

Semi-auto drain

Drain



# Preparation unit—F.R.L. combination



## AFC、BFC Series

### Specification

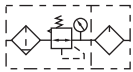
Model	AFC1500	AFC2000	BFC2000	BFC3000	BFC4000	
Fluid	Air					
Port size	1/8"	1/4"	1/4"	3/8"	1/2"	
Filtering grade	40 μm or 5 μm					
Pressure range	Semi-auto and automatic drain: 0.15~0.9MPa(20~130Psi)		Manual drain: 0.05~0.9MPa(7~130Psi)			
Max. pressure	1.0MPa(145Psi)					
Proof pressure	1.5MPa(215Psi)					
Temperature range	-20~70°C					
Capacity of drain bowl	15CC		60CC			
Capacity of oil bowl	25CC		90CC			
Recommended lubricant	ISO VG 32 or equivalent					
Weight	500g		700g			
Constitute	Filter-Regulator	AFR1500	AFR2000	BFR2000	BFR3000	BFR4000
	Lubricator	AL1500	AL2000	BL2000	BL3000	BL4000

### Ordering code

#### AFC 2000 M W □ P

Model		Port size		Thread type		Scale		Drain type		Filtering grade		
AFC:	A Series F.R.L unit	Series	Port size	P:	PT	Blank:	MPa	AFC:	Blank:	Semi-auto drain	Blank:	40 μm
BFC:	B Series F.R.L unit	AFC	1500: 1/8"	T:	NPT	P:	psi	AFC	M:	Manual drain	W:	5 μm
		BFC	2000: 1/4"	G:	G	B:	bar	BFC	A:	Automatic drain		
			3000: 3/8"			Z:	Double scale (psi, kgf/cm <sup>2</sup> )					
			4000: 1/2"									

### Symbol

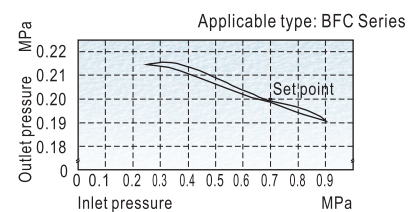
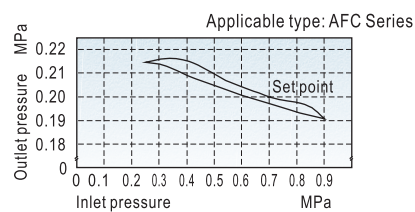


### Product feature

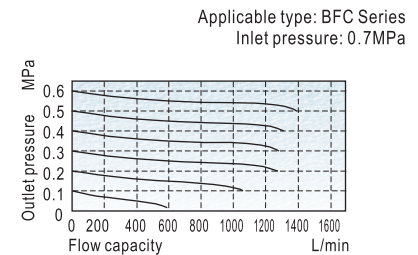
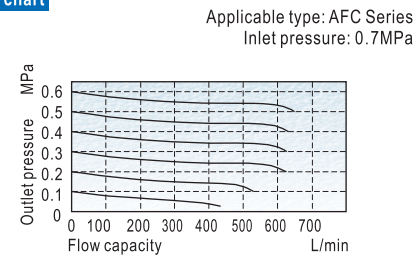
1. The structure is delicate and compact, which is convenient for installation and application.
2. The pressed-in self-locking mechanism can prevent the abnormal movement of the set pressure caused by external interfere.
3. The pressure loss is low and the efficiency of water separating is high.
4. The quantity of oil dripping can be directly observed through transparent check dome.
5. In addition to standard type, lower pressure type is optional (The highest adjustable pressure is 0.4MPa).

### Pressure and feature of flow

#### Pressure chart



#### Flow chart





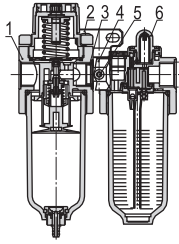
# Preparation unit—F.R.L. combination



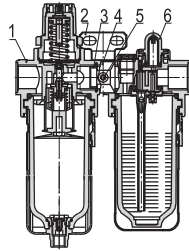
## AFC、BFC Series

### Inner structure

#### AFC



#### BFC



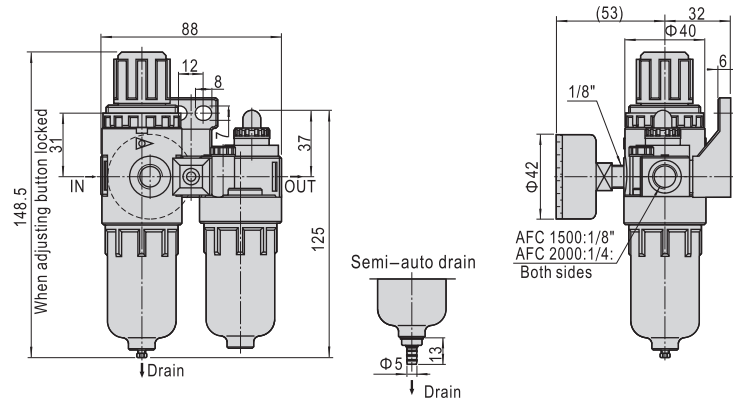
No.	Item
1	AFR, BFR Series filter & regulator
2	A, B Series bracket
3	A, B Series gasket
4	A, B Series fixed kit
5	Screw
6	AL, BL Series lubricator

### Selection of drain mode

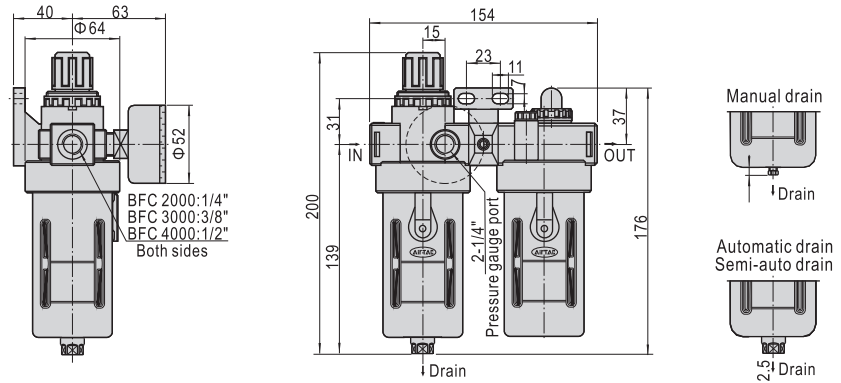
The drain modes of different series are different.  
Please refer to P 155 for details.

### Dimensions

#### AFC



#### BFC



AFC  
BFC

# Preparation unit—Filter & regulator



## AFR、BFR Series

### Specification

Model	AFR1500	AFR2000	BFR2000	BFR3000	BFR4000
Fluid	Air				
Port size	1/8"	1/4"	1/4"	3/8"	1/2"
Filtering grade	40 μm or 5 μm				
Pressure range	Semi-auto and automatic drain: 0.15~0.9MPa(20~130Psi)		Manual drain: 0.05~0.9MPa(7~130Psi)		
Max. pressure	1.0MPa(145Psi)				
Proof pressure	1.5MPa(215Psi)				
Temperature range	-20~70°C				
Capacity of drain bowl	15CC		60CC		
Weight	260g		400g		

### Ordering code

AFR 2000 M W □ P

**Model**  
 AFR: A Series Filter & regulator  
 BFR: B Series Filter & regulator

**Port size**

Series	Port size
AFR	1500: 1/8"
	2000: 1/4"
BFR	2000: 1/4"
	3000: 3/8"
4000: 1/2"	

**Drain type**

Series	Drain type
AFR	Blank: Semi-auto drain
	M: Manual drain
BFR	Blank: Semi-auto drain
	M: Manual drain
	A: Automatic drain

**Thread type**  
 P: PT  
 T: NPT  
 G: G

**Scale**  
 Blank: MPa  
 P: psi  
 B: bar  
 Z: Double scale(psi, kgf/cm<sup>2</sup>)

**Filtering grade**  
 Blank: 40 μm  
 W: 5 μm

### Symbol

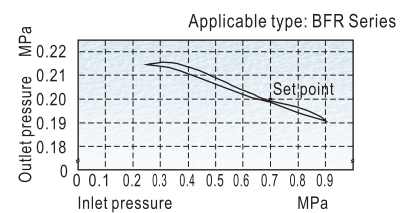
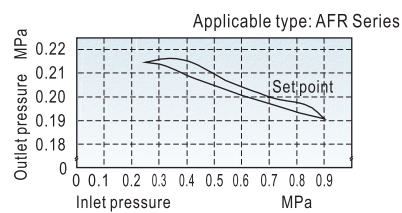


### Product feature

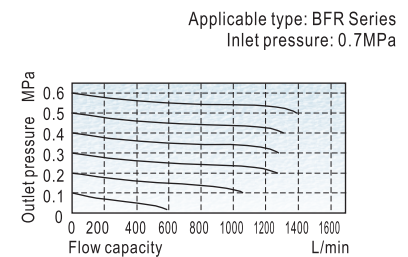
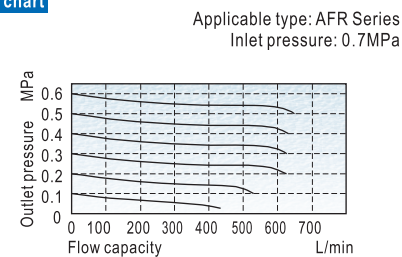
1. The structure is delicate and compact, which is convenient for installation and application.
2. The pressed-in self-locking mechanism can prevent the abnormal movement of the set pressure caused by external interfere.
3. The pressure loss is low and the efficiency of water separating is high;
4. In addition to standard type, lower pressure type is optional(The highest adjustable pressure is 0.4MPa).

### Pressure and feature of flow

#### Pressure chart



#### Flow chart

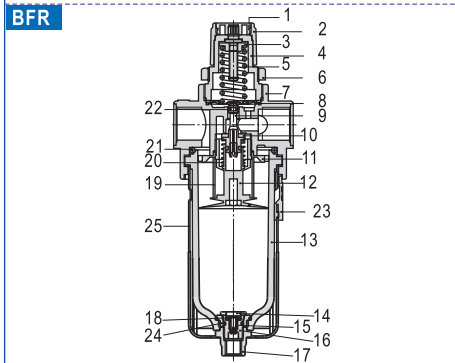
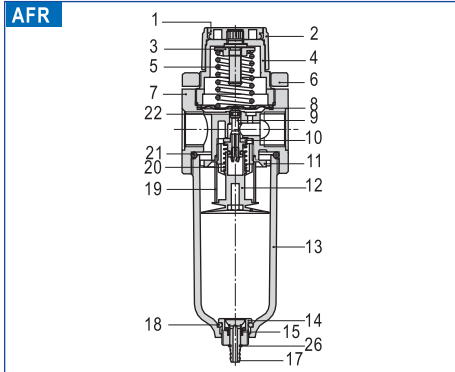


# Preparation unit—Filter & regulator

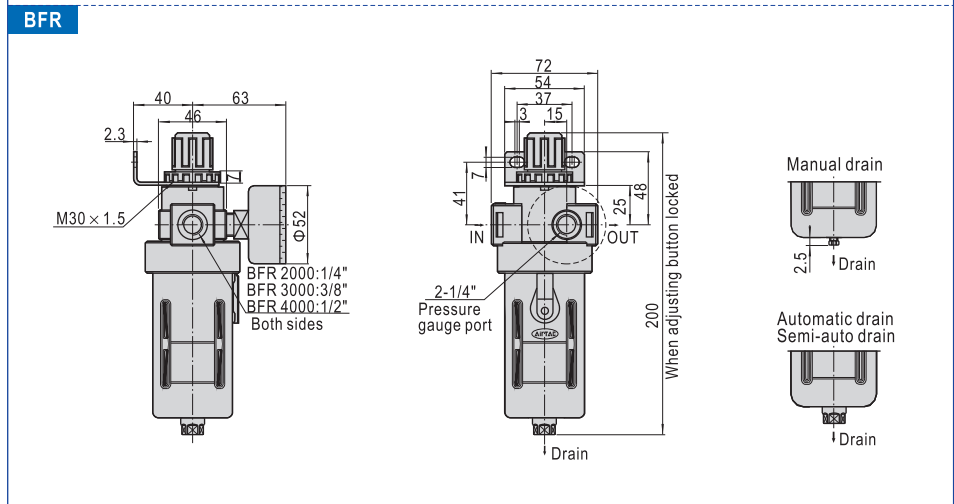
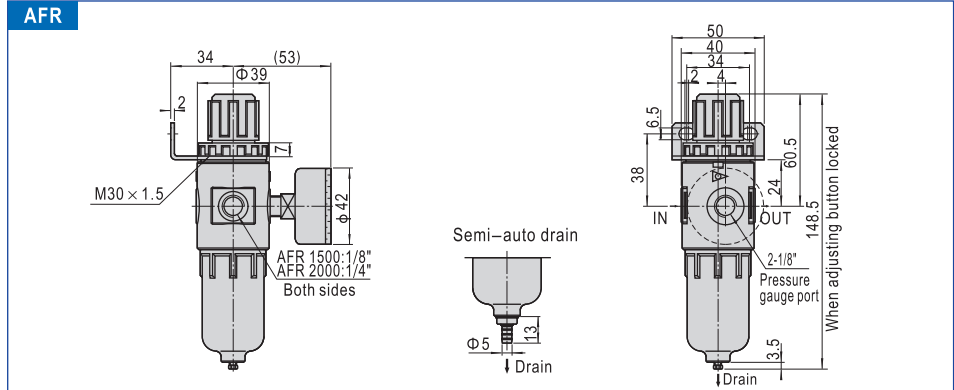


## AFR、BFR Series

### Inner structure and Material of major parts    Dimensions



No.	Item	Material
1	Push button	POM
2	Adjusting button	POM
3	Adjusting nut	Steel
4	Adjusting seat	POM
5	Adjusting spring	SWC
6	Fixed ring	POM
7	Body	Aluminum alloy
8	Diaphragm	SUS304 & rubber
9	Balance needle	POM
10	needle gasket	Aluminum alloy & rubber
11	Air guider	POM
12	Umbrella baffle	POM
13	Drain bowl	PC
14	Drain kit	POM
15	Return spring	Stainless steel
16	Drain seat	POM
17	Drain pillar	POM
18	Drain O-ring	NBR
19	Filter element	5 μ m Makrolon fiber 40 μ m Agglomerated by bronze grain
20	Return spring	Stainless steel
21	Drain bowl O-ring	NBR
22	Needle O-ring	NBR
23	Bowl guard switch	POM
24	Gasket	POM
25	Bowl guard	PA66
26	Clip	Spring steel



### Selection of drain mode

The drain modes of different series are different.  
Please refer to P 155 for details.





# Preparation unit—Filter



## AF、BF Series

### Specification

Model	AF1500	AF2000	BF2000	BF3000	BF4000
Fluid	Air				
Port size	1/8"	1/4"	1/4"	3/8"	1/2"
Filtering grade	40 μm or 5 μm				
Pressure range	Semi-auto and automatic drain: 0.15~0.9MPa(20~130Psi)		Manual drain: 0.05~0.9MPa(7~130Psi)		
Proof pressure	1.5MPa(215Psi)				
Temperature range	-20~70°C				
Capacity of drain bowl	15CC		60CC		
Weight	140g		330g		

### Ordering code

#### AF 2000 M W P

Model		Thread type	
AF: A Series Filter	BF: B Series Filter	P: PT	T: NPT
		G: G	

Port size		Filtering grade	
Series	Port size	Blank: 40 μm	W: 5 μm
AF	1500: 1/8"		
	2000: 1/4"		
BF	2000: 1/4"		
	3000: 3/8"		
	4000: 1/2"		

Drain type	
Series	Drain type
AF	Blank: Semi-auto drain
	M: Manual drain
BF	Blank: Semi-auto drain
	M: Manual drain
	A: Automatic drain

### Symbol



### Product feature

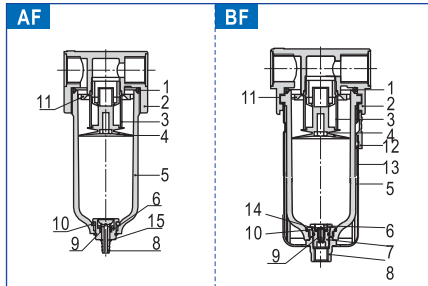
#### AF series

- The structure is delicate and compact.
- The pressure loss is low and the efficiency of water separating is high;
- The filter precision includes 5 μm and 40 μm (optional);

#### BF series

- The pressure loss is low and the efficiency of water separating is high.
- The bowl has high-strength plastic shields outside, which is more safe and reliable to use.
- The filter precision includes 5 μm and 40 μm (optional).

### Inner structure and material of major parts

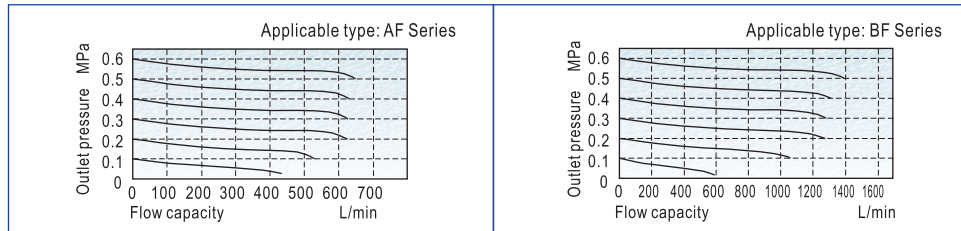


No.	Item	Material
1	Drain bowl O-ring	NBR
2	Body	Aluminum alloy
3	Filter element	5 μm Makrolon fiber 40 μm Agglomerated by bronze grain
4	Umbrella baffle	POM
5	Drain bowl	PC
6	Drain kit	POM
7	Drain seat	POM
8	Drain pillar	POM
9	Return spring	Stainless steel
10	Gasket	POM
11	Air guider	POM
12	Bowl guard switch	POM
13	Bowl guard	PA6
14	Drain seat O-ring	NBR
15	Clip	Spring steel

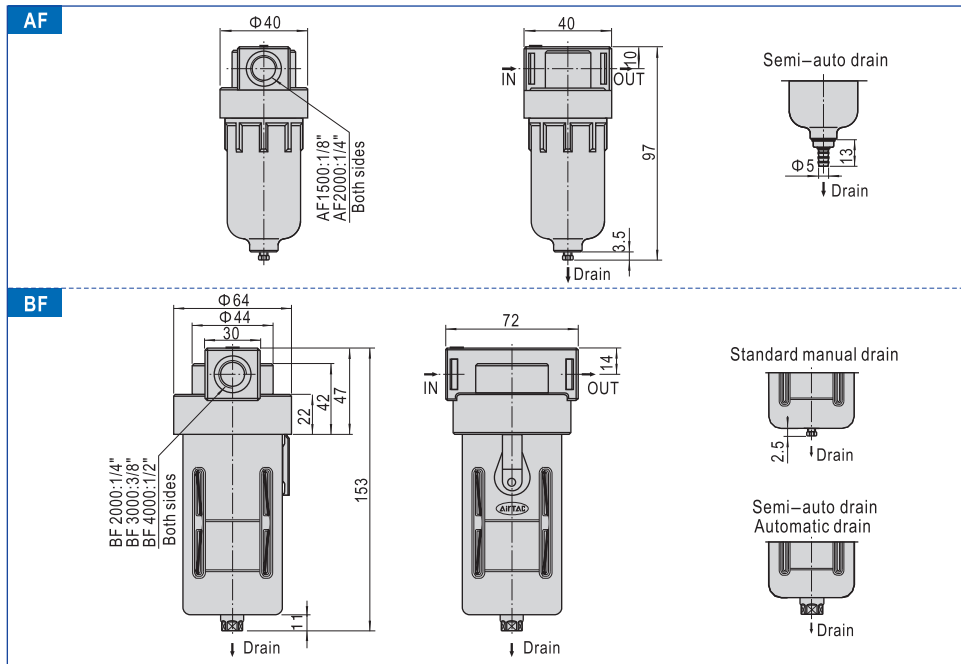
### Selection of drain mode

The drain modes of different series are different. Please refer to P155 for details.

### Flow chart



### Dimensions



# Preparation unit—Regulator



## AR、BR Series

### Specification

Model	AR1500	AR2000	BR2000	BR3000	BR4000
Fluid	Air				
Port size	1/8"	1/4"	1/4"	3/8"	1/2"
Pressure range	0.05~0.9MPa(7~130Psi)				
Max. pressure	1.0MPa(145Psi)				
Proof pressure	1.5MPa(215Psi)				
Temperature range	-20~70°C				
Weight	200g		230g		

### Ordering code

**AR 2000 L □ P**

- Model**
  - AR: A Series Regulator
  - BR: B Series Regulator
- Port size**

Series	Port size
AR	1500: 1/8"
	2000: 1/4"
BR	2000: 1/4"
	3000: 3/8"
	4000: 1/2"
- Thread type**
  - P: PT
  - T: NPT
  - G: G
- Scale**
  - Blank: MPa
  - P: psi
  - B: bar
  - Z: Double scale(psi、kgf/cm<sup>2</sup>)
- Type code**
  - Blank: Standard(0.9MPa)
  - L: Lower pressure(0.4MPa)



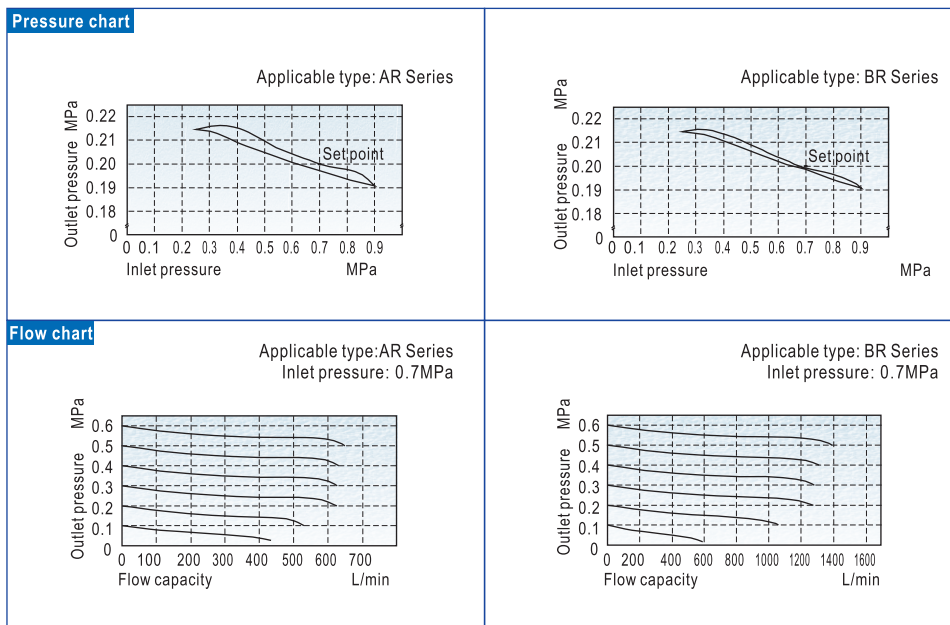
### Symbol



### Product feature

1. The structure is delicate and compact, which is convenient for installation and application.
2. The pressed-in self-locking mechanism can prevent the abnormal movement of the set pressure caused by external interfere.
3. In addition to standard type, lower pressure type is optional (The highest adjustable pressure is 0.4MPa).

### Pressure and feature of flow



# Preparation unit—Regulator

**AIRTAC**

## AR、BR Series

### Inner structure and material of major parts

### Dimensions



**AR**

**BR**

No.	Item	Material
1	Push button	POM
2	Adjusting button	POM
3	Adjusting nut	Steel
4	Adjusting pillar	Steel
5	Adjusting spring	SWC
6	Fixed ring	POM
7	Adjusting seat	POM
8	Body	Aluminum alloy
9	Diaphragm	SUS304 & rubber
10	Needle O-ring	NBR
11	Balance needle	POM
12	Needle gasket	Aluminum alloy & rubber
13	Cap O-ring	NBR
14	Return spring	Stainless steel
15	Regulator cap	POM

**AR**

**BR**





# Preparation unit—Lubricator



## AL、BL Series

### Specification

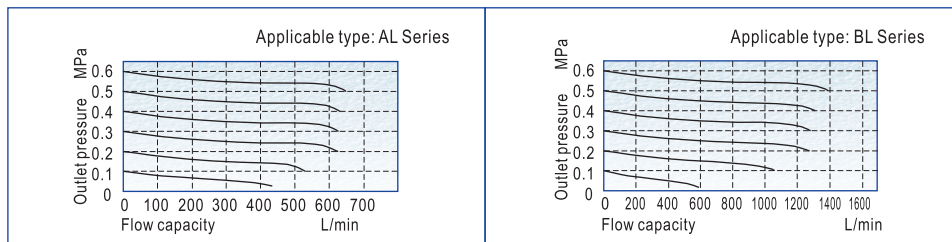
Model	AL1500	AL2000	BL2000	BL3000	BL4000
Fluid	Air				
Port size	1/8"	1/4"	1/4"	3/8"	1/2"
Pressure range	0.05~0.9MPa(7~130Psi)				
Proof pressure	1.5MPa(215Psi)				
Temperature range	-20~70°C				
Capacity of oil bowl	25CC		90CC		
Recommended	ISO VG 32 or equivalent				
Weight	170g		250g		

### Ordering code

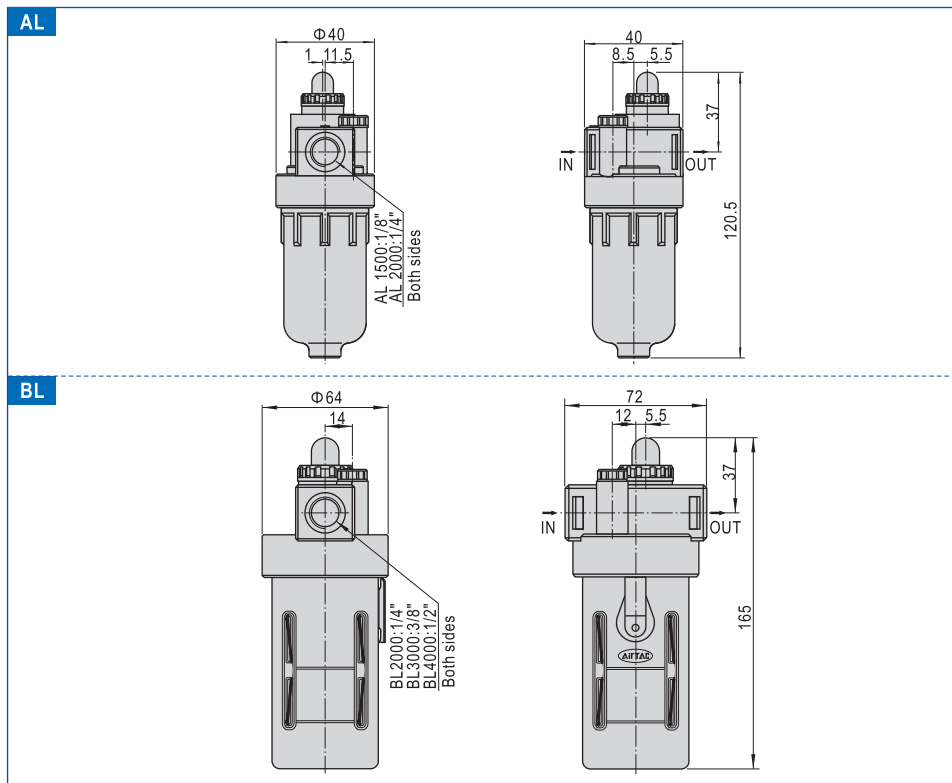
#### AL 2000 P

Model	Thread type	Port size
AL: A Series lubricator	P: PT	Series Port size
BL: B Series lubricator	T: NPT	AL 1500: 1/8"
	G: G	AL 2000: 1/4"
		BL 2000: 1/4"
		BL 3000: 3/8"
		BL 4000: 1/2"

### Flow chart



### Dimensions



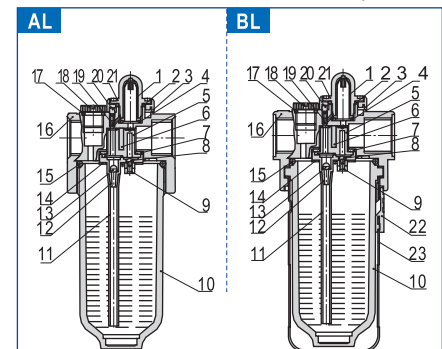
### Symbol



### Product feature

1. The structure is delicate and compact.
2. The quantity of oil dripping can be directly observed through transparent inspection sheet.
3. BL has high-strength plastic shields, which is more safe and reliable to use.
4. The pressure loss and the flow of miststart is low.

### Inner structure and material of major parts



No.	Item	Material
1	Drip pipe	PC
2	Dripper O-ring	NBR
3	Oil adjusting dial	POM
4	Adjusting ring	NBR
5	Lubricator seat	POM
6	Partition	PU
7	Lubricator kit gasket	NBR
8	Adjustor	HDPE
9	Return spring	Stainless steel
10	Oil bowl	PC
11	Sunk tube	PU
12	Lubricator kit	POM
13	Ball	Stainless steel
14	Lubricator fixed plate	SPCC
15	Oil bowl O-ring	NBR
16	Body	Aluminum alloy
17	Oil filling nut O-ring	NBR
18	Oil filling plug	Steel
19	Needle spring	Stainless steel
20	Injector pin	Bronze
21	Check-dome	PC
22	Bowl guard switch	POM
23	Bowl guard	PA6

