



Lubricator

L1000/L3000/L4000/L8000 Series

Supplying fine mist oil
Port size: 1/8 to 1

JIS symbol 



Specifications

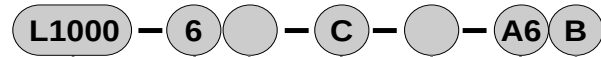
Descriptions	L1000	L3000	L4000	L8000
Appearance				
Working fluid	Compressed air			
Max. working pressure MPa	1.0			
Withstanding pressure MPa	1.5			
Working temperature °C	5 to 60			
Minimum drip flow Note 1 m ³ /min. (ANR)	0.015	0.03	0.065	0.065
Oil capacity cm ³	20	85	170	170 (MAX360)
Applicable oil	Turbine oil Class 1 ISO VG32 (spindle oil can not be used)			
Port size Rc, NPT, G	1/8, 1/4 (3/8 uses an adapter)	1/4, 3/8 (1/2 uses an adapter)	1/4, 3/8, 1/2 (3/4 uses an adaptor)	3/4, 1 (1 1/4 uses an adapter)
Product weight kg	0.1	0.28	0.45	1.4
Standard accessories	Bowl guard			

Note 1: The minimum drip flow is the rate at which five drops of turbine oil drip per minute at the primary pressure 0.5 MPa and inlet air temperature 20°C . (This cannot be used for dry fog.)

Float switch electric specifications

Descriptions	
Control point	1 point
Operation	Switch turns OFF when float rises (oil level detected), and turns ON when float lowers (no oil level detected)
Max. applicable voltage	240VAC, 200VDC
Max. contact capacitance	50 VA or 50 W, whichever is smaller.
Max. open and close current	0.5A
Withstanding pressure between contacts	400VDC for one minute, leak current 1mA or less
Contact resistance	220mΩ or less (between terminal sections)
Insulation resistance	100MΩ and over (between terminal and cases, 500 VDC megger)
Withstand voltage	1500 VAC for one minute (between terminal and cases)
Electric service life	10 ⁶ times (200 VAC, 200mA, resistance load)

How to order



A Model no.

B Port size

C Port thread type

D Option

E Display unit

F Piping adapter set (Attached)

G Bracket (Attached)

* Refer to page 244 for explanation of an option.

Symbol	Descriptions	A Model no.			
B Port size		L1000	L3000	L4000	L8000
6	1/8	●			
8	1/4	●	●	●	
10	3/8		●	●	
15	1/2			●	
20	3/4				●
25	1				●
C Port thread type		Note 1			
Blank	Rc thread	●	●	●	●
N	NPT thread	●	●	●	●
G	G thread	●	●	●	●
D Option		Note 2			
Drainage	Blank	Without manual cock	●	●	●
	C	With manual cock	●	●	●
	LL	With float switch		●	●
Bowl material Note 3	Blank	Polycarbonate bowl	●	●	●
	Z	Nylon bowl	●	●	●
	M	Metal bowl		●	●
Flow direction	Blank	Standard flow (left to right)	●	●	●
	X1	Reverse flow (right to left)	●	●	●
E Display unit					
Blank		MPa display, Rc thread	●	●	●
J1		MPa display, NPT, G thread	●	●	●
F Piping adapter set (attached)		Note 4 Pages 394 to 396			
Blank		Not attached	●	●	●
A6*		1/8 piping adapter set	●		
A8*		1/4 piping adapter set	●	●	●
A10*		3/8 piping adapter set	●	●	●
A15*		1/2 piping adapter set		●	●
A20*		3/4 piping adapter set			●
A25*		1 piping adapter set			●
A32*		1 1/4 piping adapter set			●
*Adaptor screw type					
Blank		Rc thread	●	●	●
N		NPT thread	●	●	●
G		G thread	●	●	●
G Bracket (attachment)					
Blank		Not attached	●	●	●
B		C type bracket	●	●	●

Note on model no. selection

Note 1: When G threads or NPT threads are selected, the IN and OUT are the target.

Note 2: When selecting options for several items, list options in order from the top.

Note 3: The adjusting dome is made of polycarbonate for a nylon bowl or metal bowl. Consult with CKD if different material is required.

Note 4: Piping adaptor and C type bracket can not be used together.

Note 5: Copper and PTFE free as standard.

Drainage and bowl material combination (Item "D" in How to Order)

Option ● With float switch

	3000/4000/8000 Series		
Shape			
Material	Plastic bowl		Metal bowl
	Polycarbonate	Nylon	Aluminum
Lubricator L*000	LL	LLZ	LLM

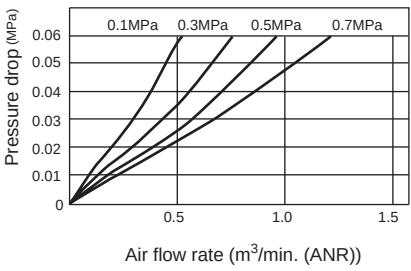
Refrigerating type dryer
Desiccant type dryer
High polymer membrane dryer
Air filter
Auto. drain / others
F.R.L. (Module unit)
F.R.L. (Separate)
Compact F.R.
Precise regulator
F.R.L. (Related products)
Clean F.R.
Electro pneumatic regulator
Air booster
Speed control valve
Silencer
Check valve / others
Joint / tube
Vacuum filter
Vacuum regulator
Suction plate
Magnetic spring buffer
Mechanical pressure SW
Electronic pressure SW
Contact / close contact conf. SW
Air sensor
Pressure SW for coolant
Small flow sensor
Small flow controller
Flow sensor for air
Flow sensor for water
Total air system
Total air system (Gamma)
Ending

Standard Series
F.R.L. unit

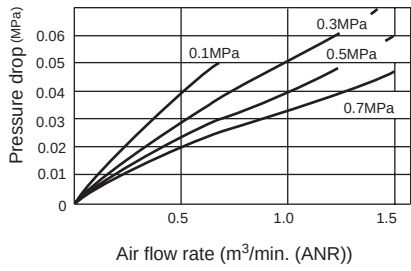
Refrigerating type dryer
Desiccant type dryer
High polymer membrane dryer
Air filter
Auto. drain / others
F.R.L. (Module unit)
F.R.L. (Separate)
Compact F.R.
Precise regulator
F.R.L. (Related products)
Clean F.R.
Electro pneumatic regulator
Air booster
Speed control valve
Silencer
Check valve / others
Joint / tube
Vacuum filter
Vacuum regulator
Suction plate
Magnetic spring buffer
Mechanical pressure SW
Electronic pressure SW
Contact / close contact conf. SW
Air sensor
Pressure SW for coolant
Small flow sensor
Small flow controller
Flow sensor for air
Flow sensor for water
Total air system
Total air system (Gamma)
Ending

Flow characteristics

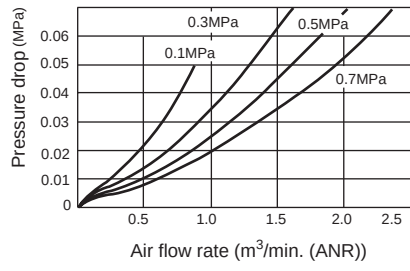
● L1000-6



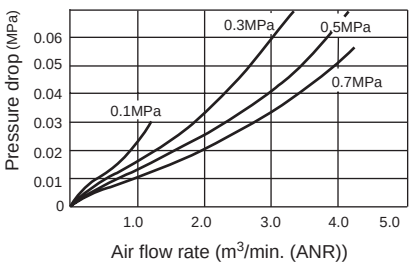
● L1000-8



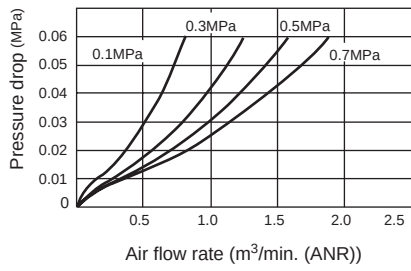
● L3000-8



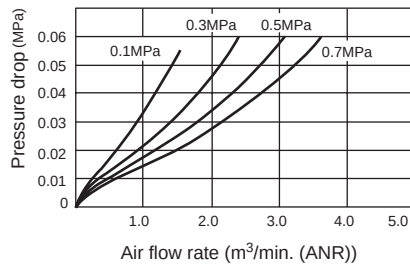
● L3000-10



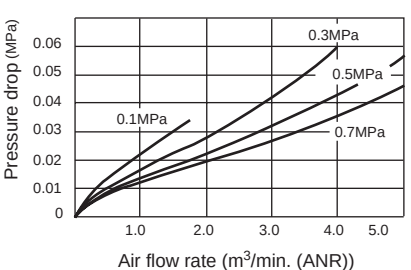
● L4000-8



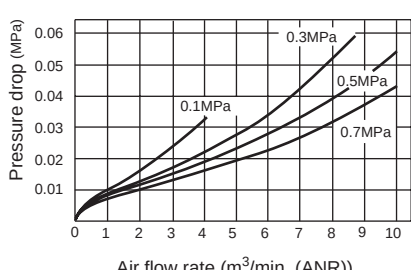
● L4000-10



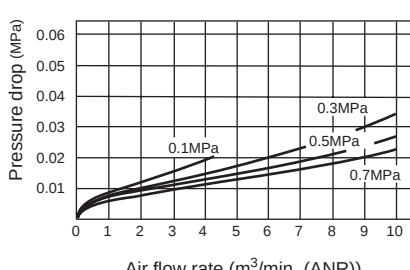
● L4000-15



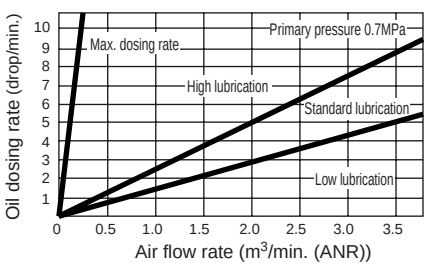
● L8000-20



● L8000-25



Oil dosing rate

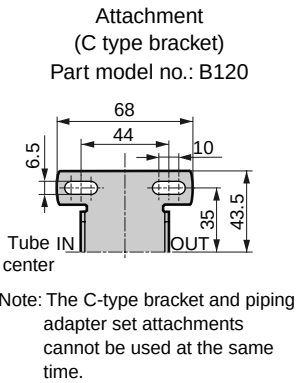
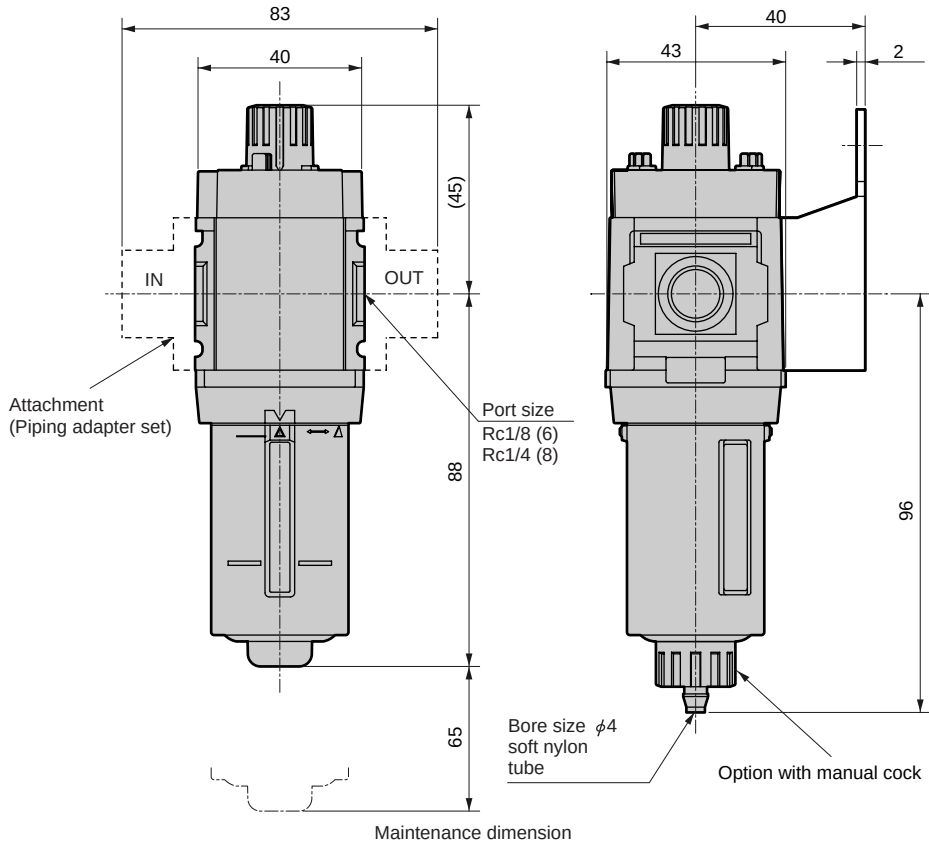


Lubricator Series

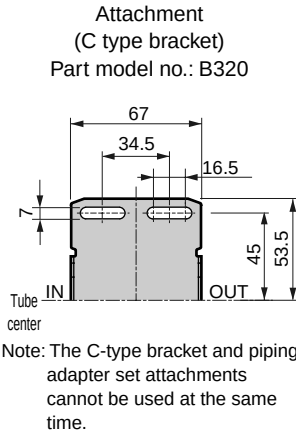
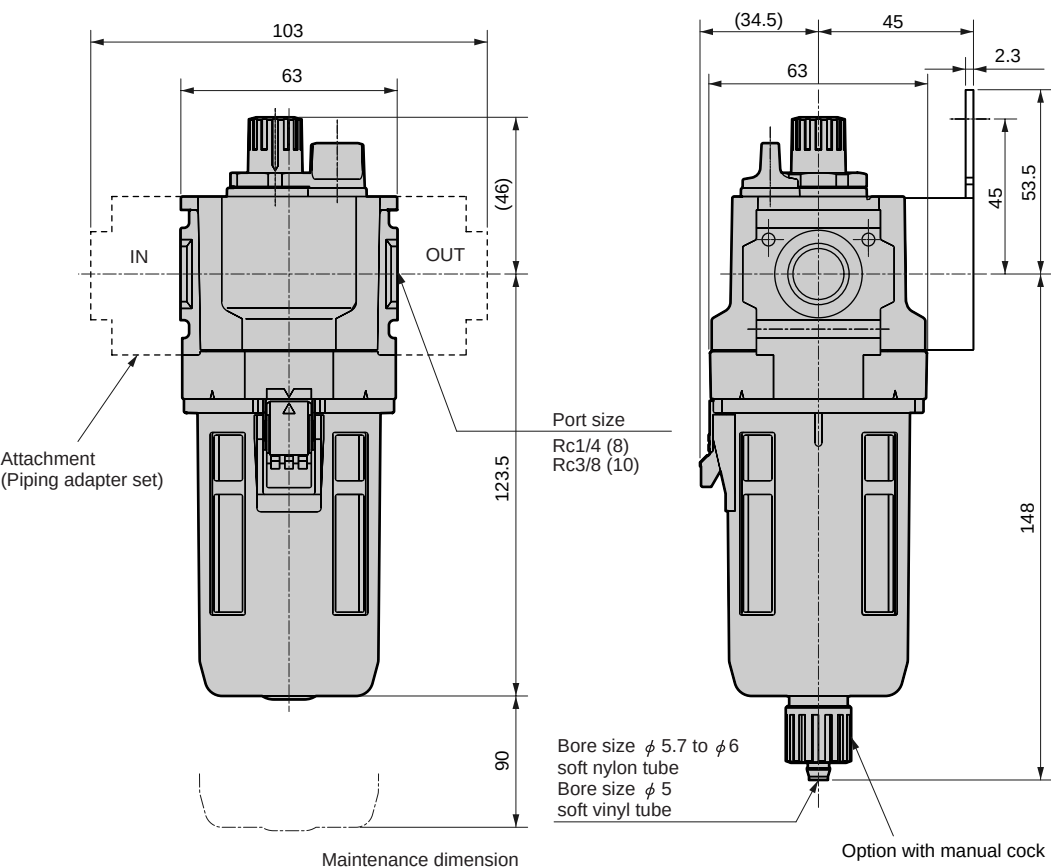
Dimensions



● L1000



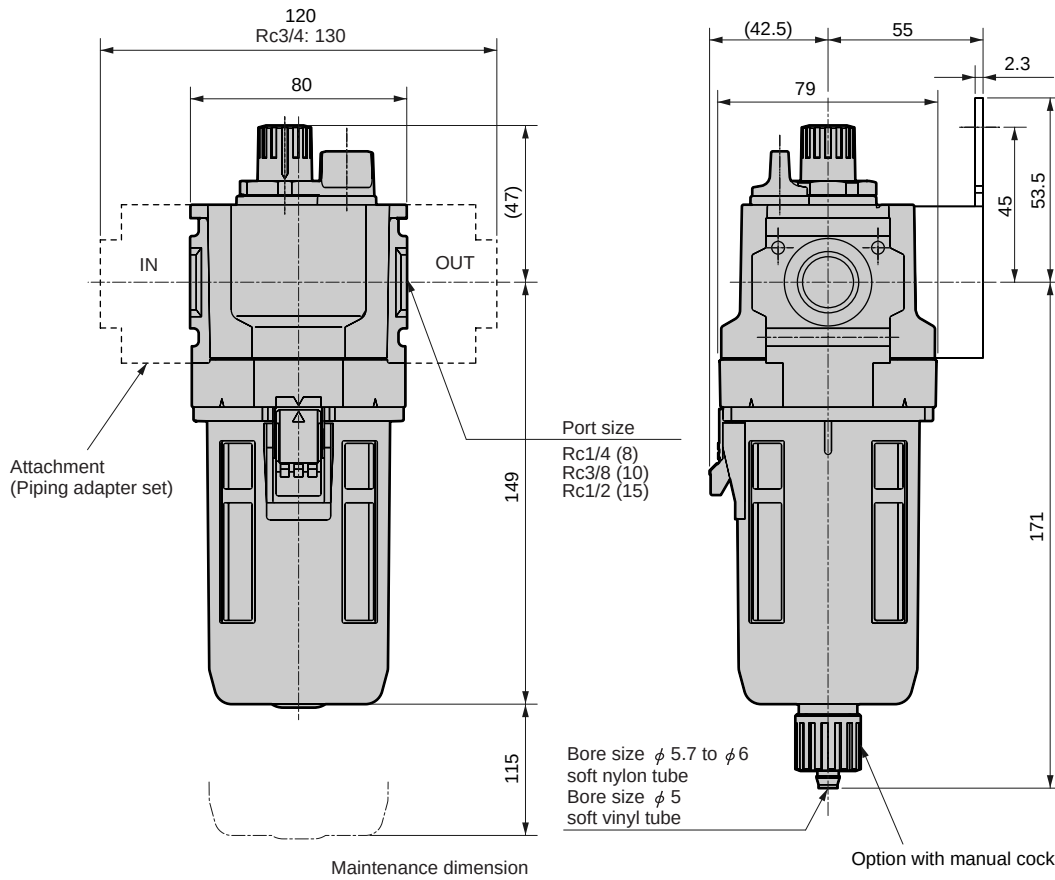
● L3000



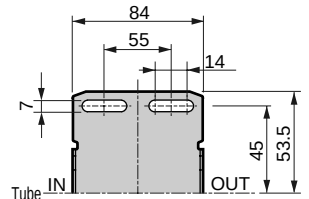
Dimensions



● L4000



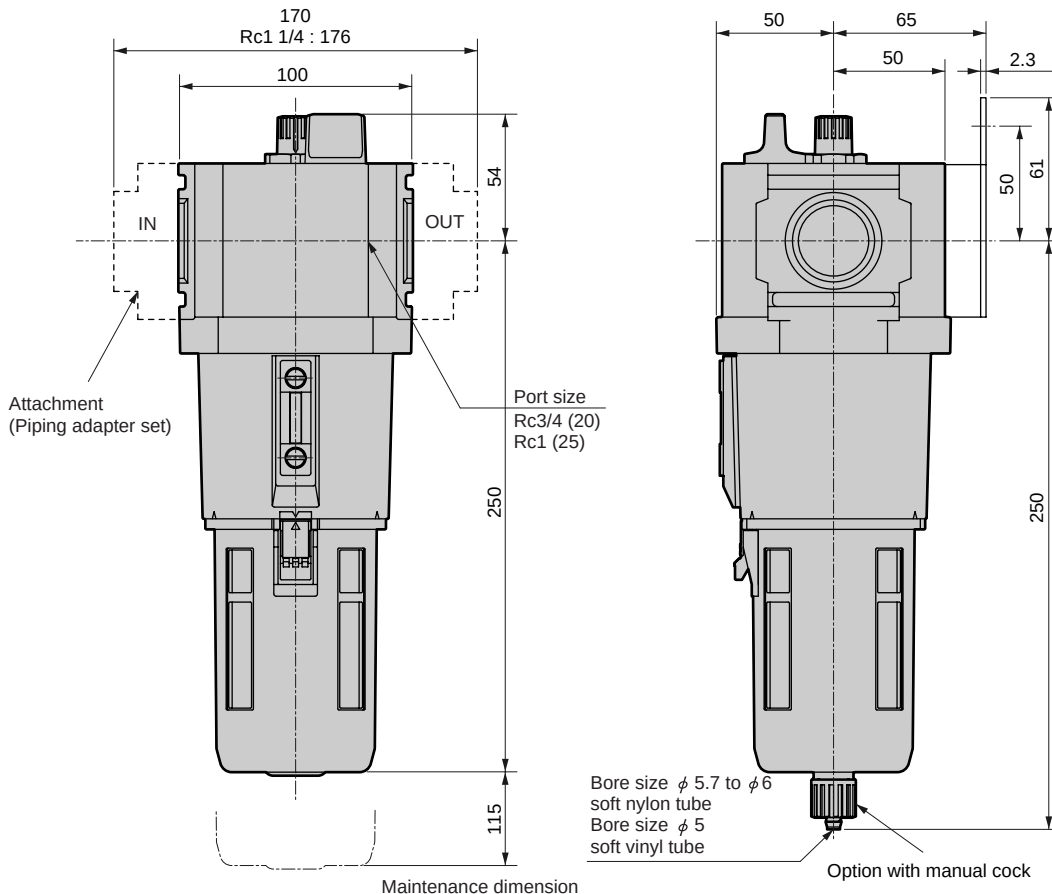
Attachment
(C type bracket)
Part model no.: B420



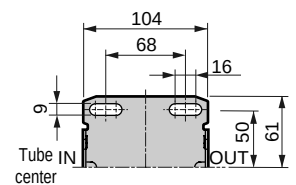
Note: The C-type bracket and piping adapter set attachments cannot be used at the same time.

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● L8000



Attachment
(C type bracket)
Part model no.: B820



Note: The C-type bracket and piping adapter set attachments cannot be used at the same time.

Refrigerating type dryer
Desiccant type dryer
High polymer membrane dryer
Air filter
Auto. drain / others
F.R.L. (Module unit)
F.R.L. (Separate)
Compact F.R.
Precise regulator
F.R.L. (Related products)
Clean F.R.
Electro pneumatic regulator
Air booster
Speed control valve
Silencer
Check valve / others
Joint / tube
Vacuum filter
Vacuum regulator
Suction plate
Magnetic spring buffer
Mechanical pressure SW
Electronic pressure SW
Contact / close contact conf. SW
Air sensor
Pressure SW for coolant
Small flow sensor
Small flow controller
Flow sensor for air
Flow sensor for water
Total air system
Total air system (Gamma)
Ending

Standard Series
F.R.L. unit

Lubricator Series

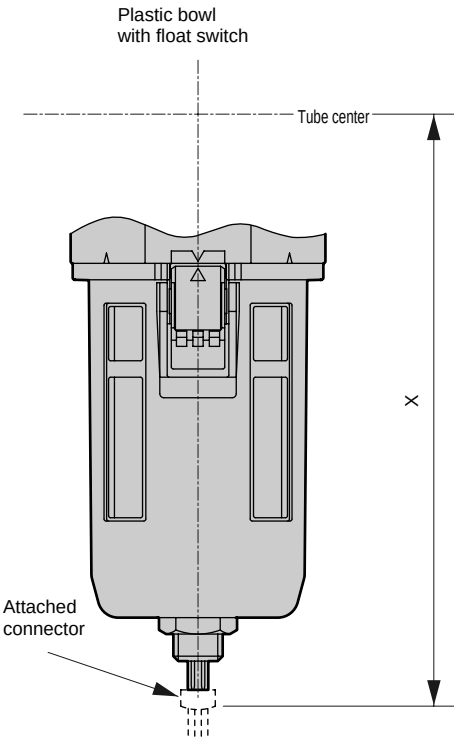
Refrigerating type dryer
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High polymer membrane dryer
Air filter
Auto. drain / others
F.R.L. (Module unit)
F.R.L. (Separate)
Compact F.R.
Precise regulator
F.R.L. (Related products)
Clean F.R.
Electro pneumatic regulator
Air booster
Speed control valve
Silencer
Check valve / others
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Ending

Optional dimensions

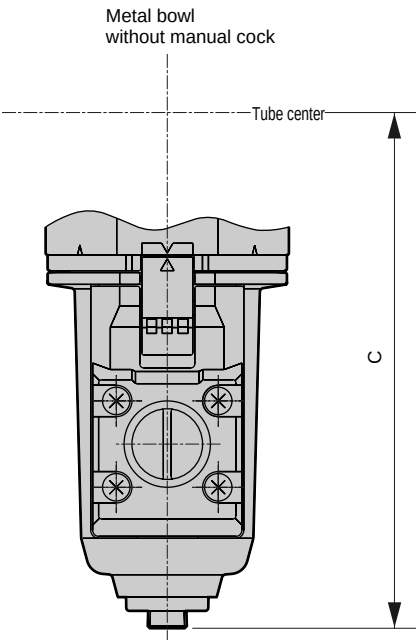


Other options (L3000, 4000, 8000)

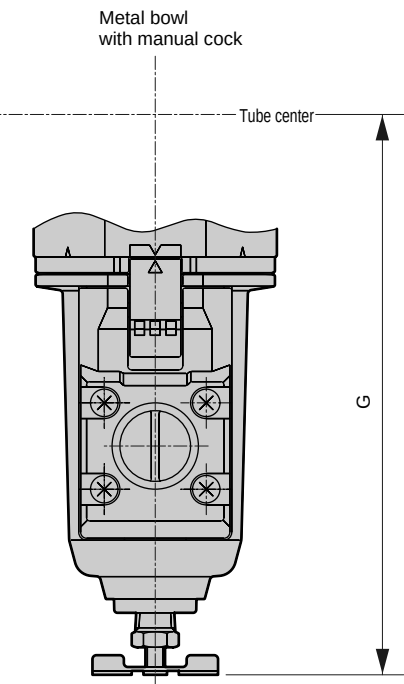
● Plastic bowl



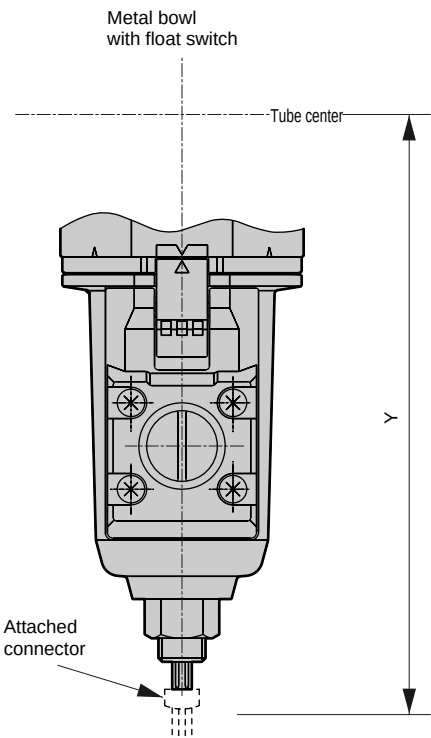
● Metal bowl without manual cock



● Metal bowl with manual cock



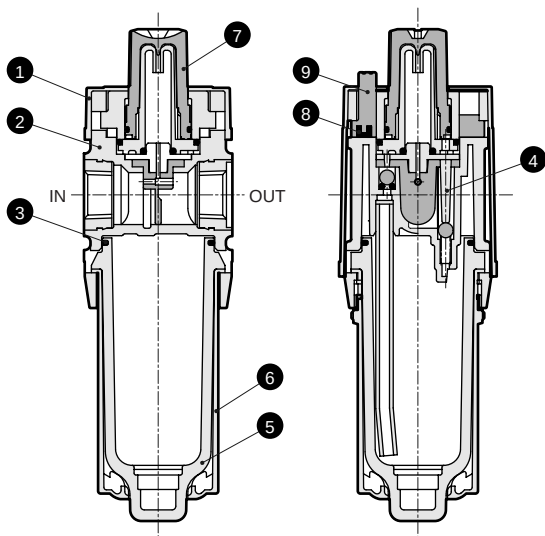
● Metal bowl with float switch



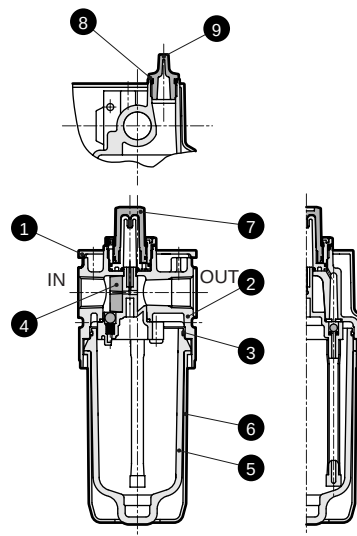
Model no.	C	G	X	Y
L3000	129	143.5	147	153.5
L4000	152	166.5	170	177
L8000	231.5	245.5	249	256

Internal structure and parts list

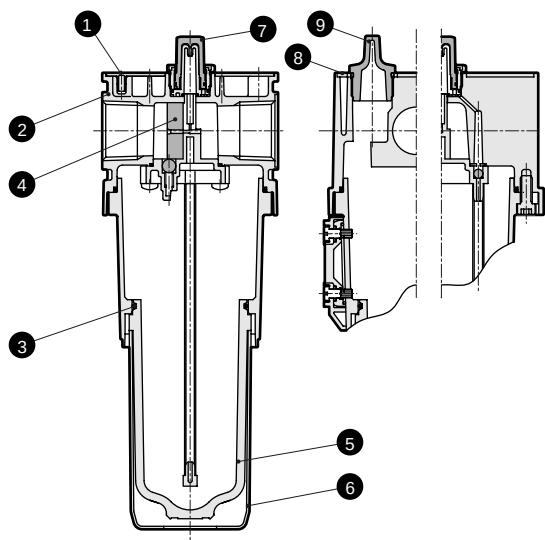
● L1000



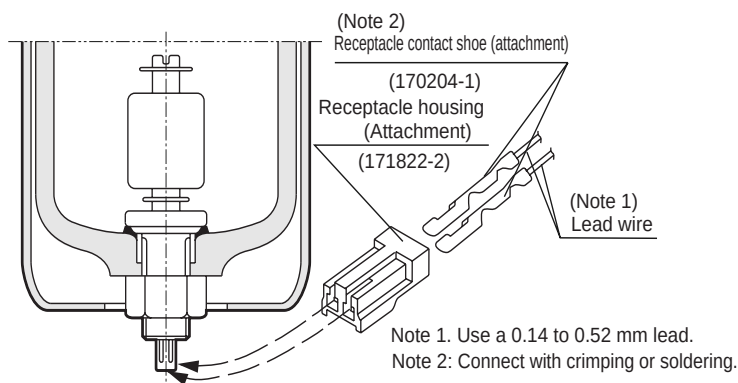
● L3000/L4000



● L8000



● Option float switch



A Japan AMP post header (part No. AMP171825-2) is used for the terminal.
Use an AMP171822-2 (standard) or AMP172142-2 (rope file) for the connector.

No.	Parts name	Material			
		L1000	L3000	L4000	L8000
1	Plate cover	ABS resin			
2	Body	Polyamide resin, steel	Aluminium alloy die-casting		
3	O ring	Note 1	Special nitrile rubber		
4	Flow guide	Urethane rubber resin		Nitrile rubber	
5	Bowl	Polycarbonate resin			
6	Bowl guard	Polyamide resin	Polyamide resin, steel		
7	Adjusting dome	Transparent nylon			
8	O ring	Nitrile rubber			
9	Filling plug	Polyacetal resin			

Note 1: O-ring of L1000 is special shaped.

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Total air system (Gamma)
Ending

Standard Series
F.R.L. unit