

Safety notice / F.R.L / Caution for application

CHELIC



Please read this safety notice carefully, pay attention to safety item while using this product, in order to prevent injury to human body and damage of property.

- Pay attention to the individual caution for various model series (read the cautions and safety notice in P. 2 ~ P.3 for common cautions and safety notice).

Caution for design, selection



Warning

- PC transparent cup of the filter, oil applicator and the see through oil dripping device of oil applicator are made of PC plastic material, no synthetic oil, organic solvent, chemical, cutting oil, volatile gas and above mentioned conditions is allowed, in order to avoid destruction of material and affect safety of application.
- If the selected plastic panel of the pressure meter for regulation valve is not suitable for spraying with organic solvent, please avoid possible panel damage of the pressure meter.



Caution

- Avoid the place with impact or rigorous vibration when designing the device; avoid to be mounted outdoor and the environment presence with chemical and corrosive air.

Caution for assembling



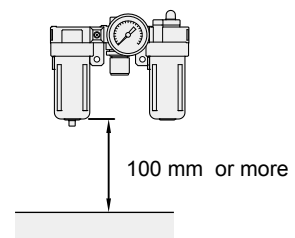
Warning

- Pay attention to the direction of the air source while installing, never used in reversed air direction.
- Use spanner to tighten the pressure meter while installing, never tighten with your hand holding the casing of the pressure meter to avoid damage of the pressure meter.
- Follow the torque in table below while laying the pipe(tighten the connector), never exceed the range of application to avoid damage of product.

Torque chart for piping

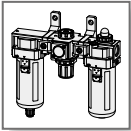
Size	Appropriate truing torque N · m (kgf · cm)
M5	1.5 ~ 2 (15 ~ 20)
Rc (PT) 1/8"	7 ~ 9 (70 ~ 90)
Rc (PT) 1/4"	12 ~ 14 (120 ~ 140)
Rc (PT) 3/8"	22 ~ 24 (220 ~ 240)
Rc (PT) 1/2"	28 ~ 30 (280 ~ 300)
Rc (PT) 3/4"	28 ~ 30 (280 ~ 300)
Rc (PT) 1 "	36 ~ 38 (360 ~ 380)

- Bottom of cup downward



(Figure A)

- Filter and Lubricator should be mounted with correct direction (Bottom of cup downward as illustrated in figure A) to ensure the function of the product while using
- Prevent debris and leak proof tape residue entering the pipe while piping, if the connector is locked by using anoxic glue, to avoid excessive amount and fluid glue from flowing in the body, which may cause jammed and poor movement.



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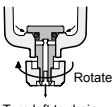
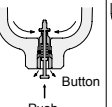
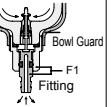
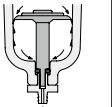
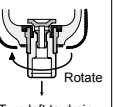
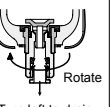
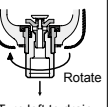
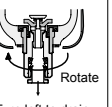
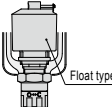
Caution for application

⚠ Warning

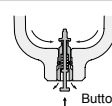
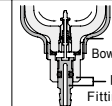
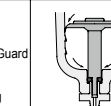
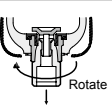
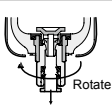
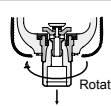
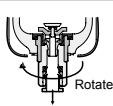
- Don't remove the PC cup while running to avoid hazard; the press key of the PC cup should be locked in position and then air supply is allowed.
- To lubricate the lubricator while operation or running, shut off the air and then top up; air supply is allowed only after oiling and lock the oil plug.
 - ① Manual draining devices which drain in clockwise direction (turn left), counterclockwise direction to lock (turn right) don't use spanner and pliers to hold to avoid damage.
 - ② Semi-Auto drainer use only for differential pressure above 0.1 Mpa (1.0 kgf/cm²).
 - ③ Automatic float ball strainer use only for pressure above 0.15 Mpa (1.5 kgf/cm²).
 - ④ Care for the cleanliness of air and PC cup, avoiding clogged by debris and dirt cause poor function of the strainer and leakage.

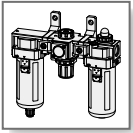
Operation and Function of the drain cock

● N100, N200, N300, N400, N450, N500 series

N100 series	N200 series			N300, N400, N450, N500 series				
- H	- H	- BG-H-F1	- A	- H	- H-F1	- S	- S-F2	- A
Manual drain cock (Standard)	Manual drain cock (Standard)	Manual drain cock (With bowl guard, Fitting)	Auto drain (Option)	Manual drain cock (Standard)	Manual drain cock (With fitting) (Option)	Semi-auto drain (Option)	Semi-auto drain (With fitting) (Option)	Auto drain (Option AD-50)
Drain while rotating fitting (left), close when turn right.	Drain while pushing the button and close automatically when release.	With addition protective bowl guard device and Fitting	Employs pressure differential for automatic drain, drain automatically when the air depletion and make up produce differential.	Drain while rotating fitting (left), close when turn right.	Drain while rotating fitting (left), close when turn right.	The valve open to drain automatically when pressure is lower than 0.5 kg/cm ² ; the valve close completely when pressure is more than 1 kg/cm ² (allow manual drain as well).	Use float switch valve, rain automatically when water level over the float, close automatically after completely drain.	
								
Turn left to drain	Push	Push		Turn left to drain	Turn left to drain	Turn left to drain	Turn left to drain	Float type

● A · B · C series

A series drain			B,C series drain				
-H	BG-H-F1	-A	-H	-H-F1	-S	-S-F2	-A
Manual drain cock (Standard)	Manual drain cock (With bowl guard, Fitting)	Auto drain (Option)	Manual drain cock (Standard)	Manual drain cock (With fitting) (Option)	Semi-auto drain (Option)	Semi-auto drain (With fitting) (Option)	Auto drain (Option AD-30)
Drain while pushing the button and close automatically when release.	With addition protective bowl guard device and Fitting.	Employs pressure differential for automatic drain, drain automatically when the air depletion and make up produce differential.	Drain while rotating fitting (left), close when turn right.	Drain while rotating fitting (left), close when turn right.	The valve open to drain automatically when pressure is lower than 0.5 kg/cm ² ; the valve close completely when pressure is more than 1 kg/cm ² (allow manual drain as well).	Use float switch valve, rain automatically when water level over the float, close automatically after completely drain.	
							
Push	Push		Turn left to drain	Turn left to drain	Turn left to drain	Turn left to drain	



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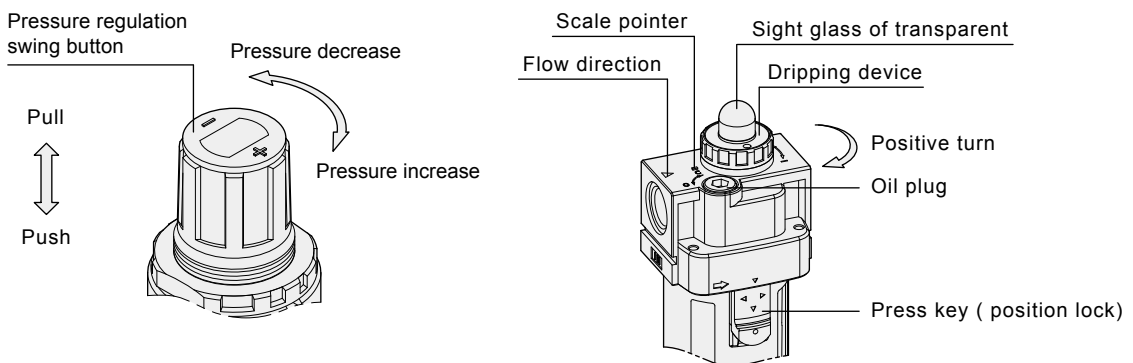
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- Use only manual rotation the oil ring of the regulator and lubricator while operating, use no spanner, pliers tool to clamp, to prevent damage and affect safe operation.
- Lubricant of the oil applicator use IOS-VG32 lubricant only (and equivalent).
- ※ Oil other specification is tended to cause poor operation of the oil applicator and resulting in structure damage.
- Prevent backflow of residue at the end of the pipeline while stop operation, prevent the oil, water contain air in bleed pipe to flow back the device, cause blockage and damage.



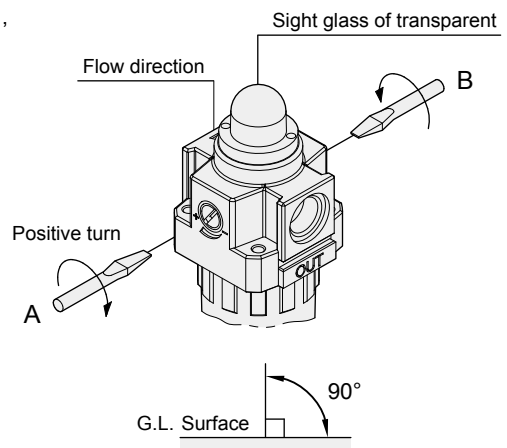
Warning

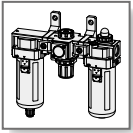
- The setting range of the secondary pressure of the pressure regulation valve use as 85% of primary pressure or below to achieve better pressure setting and regulation.
- The swing button of the pressure regulator must be pulled before turning, increase pressure while turning in clockwise direction and vise versa to decrease. Press in and secure the swing button after operation. After turning to max value (either positive or reverse) (with no pressure variation anymore), don't turn by force or use tool to avoid damage.



N100 series lubricator - Caution for application

- In figure, both A and B can use screw driver to adjust oil, (advise to adjust one side)
- When adjusting oil, screw driver use for clockwise, clockwise inside will increase oil on the contrary will decrease oil.
- Screw driver adjust oil up side down to appropriate. Don't turn again when the screw is on the bottom or top.
- Please adjust oil when air pressure pass through the lubricator and in "OUT" situation (Don't adjust oil when air flow stopping) Please stand lubricator when assembling it. Sight glass of transparent uprights (as figure) and vertical with ground.





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- Align the scale of the transparent dripping device of the lubricator to the pointer (protrusion) to regulate the oil fed amount, the feeding swing button allow one direction turning, operate in clockwise direction (positive), no counterclockwise direction (reverse) turning is allowed. Incorrect turning direction will damage the structure. "0" set point is minimum (oil stop), "9" is maximum (max oil); the max and min oil amount value shall match the air use in adjustment. Indirect flow and direct flow make significant difference in oil amount.
- The density of the element of filter is $5\mu\text{m} \sim 20\mu\text{m}$, the pipeline should maintain dry air, prevent excessive debris cause blockage and insufficient flow.

Caution for service and maintenance



Danger

- Confirm the air the line and power in turned off before servicing, prevent injury and damage while disassembly for maintenance.

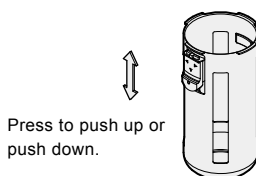


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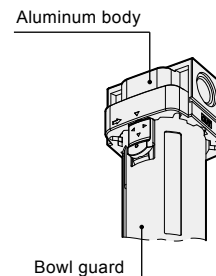
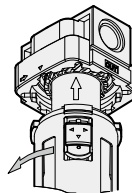
- The removal and installation of the element of the filter and oil applicator plug use hexagonal spanner; avoid to use toll in other maintenance, disassemble the internal part in unsuitable manner may cause poor performance of the product and affect safe operation.
- Replace the element of the filter is clogged or poor performance, avoid blockage and insufficient flow.
- The PC bowl of the filter and oil applicator suitable to wipe by cotton paper or wash with lure warm water and neutral household detergent, avoid to use chemical which cause damage.
- After service and maintenance, check for all of parts are tight and position properly, and confirm the matching are save, and no problem, and then start air supply.

The explanation for press key

● Bowl guard & Press key



● Assembly steps

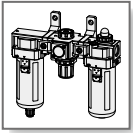


Description for steps :

1. Thumb pressing "◀ ▶" direction of the position, pulling to the press key positioning at the bottom of it and out of the aluminum body.
2. Rotate left or right to 45 degrees after pressure key out of the aluminum body. Pull down and remove the bowl guard smoothly.
3. Reverse the bowl guard that it can be installed. (No need to pull down the press key, simply bowl guard pushed up into the aluminum body and rotational positioning.

MEMO

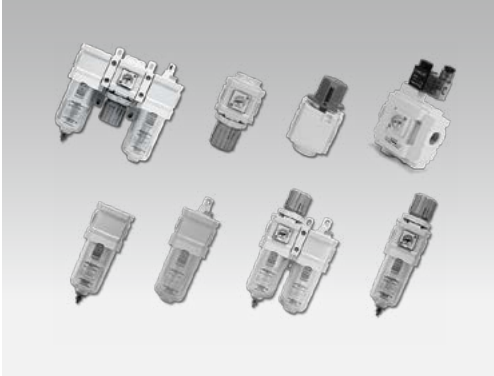
CHELIC.This image shows a full page of blank graph paper. The grid consists of thin, light gray horizontal and vertical lines that intersect to form small squares across the entire surface. There are no margins, text, or other markings on the paper.



Air unit F.R.L. Combination unit - modular

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U Modular series : 1/4, 3/8, 1/2



Futures:

- Large flow
- Space efficiency by reducing tubing arrangement
- Modularizable to multiple combinations

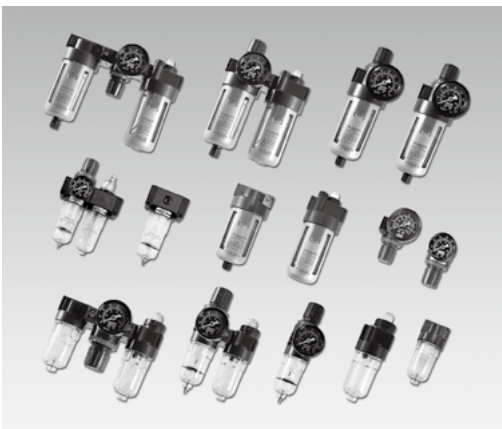
N series - Fully functional unit : M5, 1/8", 1/4", 3/8", 1/2", 3/4", 1"

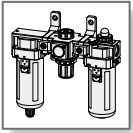


Futures:

- Central back pressure gauge
- Additional metal bowl
- Manifold tube connector
- Easy type bracket

A,B,C,P Modular series : 1/8", 1/4", 3/8", 1/2", 3/4"





Precision regulator , Auto drain trap , Large - size filter series

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ERX Precision regulator series : 1/8, 1/4, 3/8, 1/2



- ERX-200
- ERX-300
- ERX-400

NDV Auto drain trap series : 1/4, 3/8, 1/2, 3/4

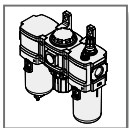


- NDV-300
- NDV-500

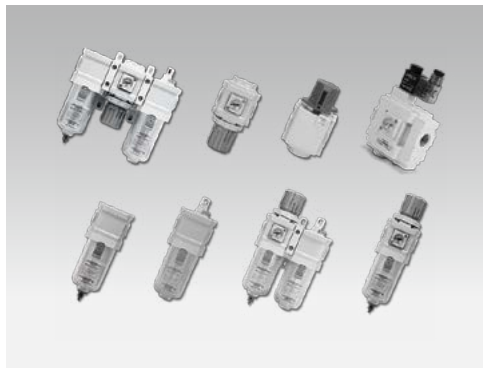
DM Large - size filter series : 1/4, 3/8, 1/2, 3/4, 1, 1 1/2



- DM-200
- DM-300
- DM-500
- DM-800

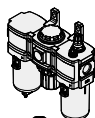


F.R.L units - U400 Modular series



Characteristic:

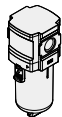
1. Large flow
2. Space efficiency by reducing tubing arrangement
3. Modularizable to multiple combinations



F.R.L. Combinations ----- **UC 400 Modular series (1/4, 3/8, 1/2)** ----- **P.1-1.1**



FR.L. Combinations ----- **UFC 400 Modular series (1/4, 3/8, 1/2)** ----- **P.1-1.5**



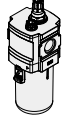
Air filter ----- **UF 400 Modular series (1/4, 3/8, 1/2)** ----- **P.1-1.9**



Filter regulator ----- **UFR 400 Modular series (1/4, 3/8, 1/2)** ----- **P.1-1.11**



Regulator ----- **UR 400 Modular series (1/4, 3/8, 1/2)** ----- **P.1-1.15**



Lubricator ----- **UL 400 Modular series (1/4, 3/8, 1/2)** ----- **P.1-1.17**



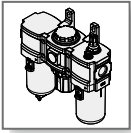
Shut-off valve ----- **UHS 400 Modular series (1/4, 3/8, 1/2)** ----- **P.1-1.21**



Soft start-up valve ----- **UV 400 Modular series (1/4, 3/8, 1/2)** ----- **P.1-1.25**

MEMO

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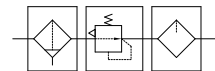
Air unit - F.R.L. Combination unit

Specification / Order Expression

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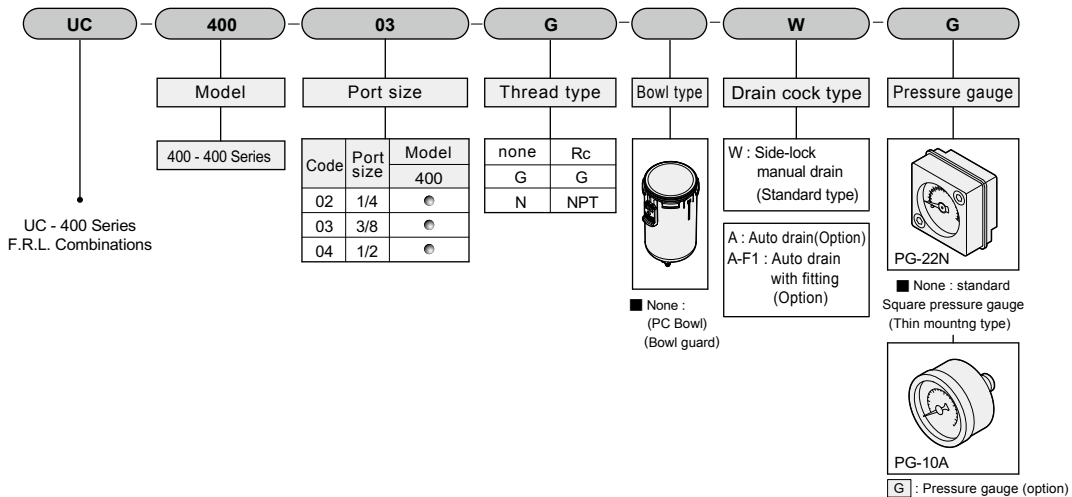
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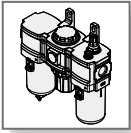


Specification

Item	Model	UC-400
Fluid		Air
Port size	Rc/G/NPT	1/4, 3/8, 1/2
Filter grade	m μ	5
Pressure range	kgf/cm ² (kPa)	0.5 ~ 8.5 (50 ~ 850)
Max. service pressure	kgf/cm ² (kPa)	10 (1000)
Temperature	°C	5 ~ 60
Min. dripping flow rate	L/min	45
Recommended lubrication		ISO VG32
Drain holding capacity	CC	80
Lubricator capacity	CC	100
Weight	kg	1.3
Material	Main body	Aluminum die cast
	Bowl	Polycarbonate

How to order





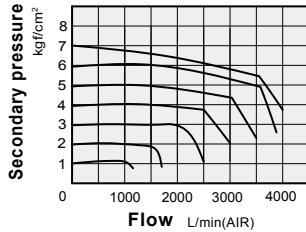
Air unit - F.R.L. Combination unit

Flow Characteristics / External Dimensions

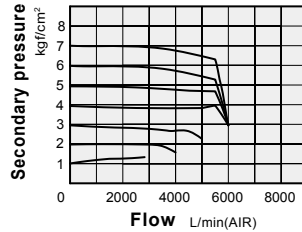
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Flow characteristics

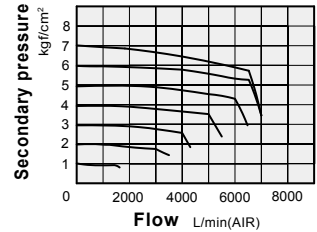
UC-400-02



UC-400-03

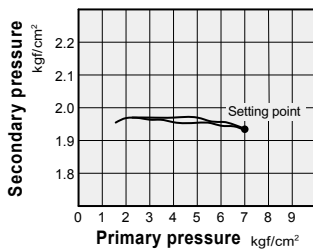


UC-400-04

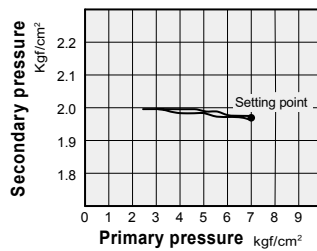


Pressure characteristic

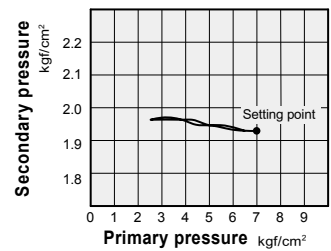
UC-400-02



UC-400-03

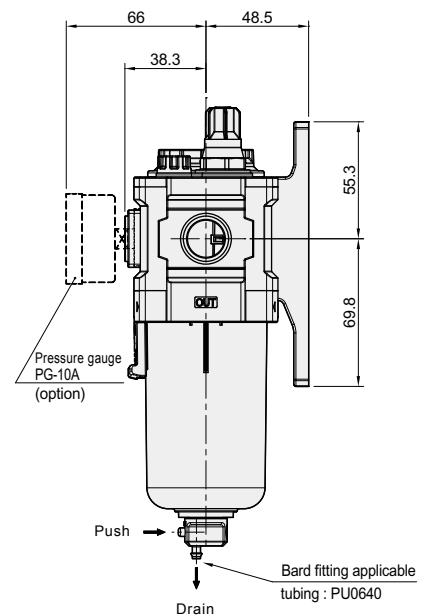
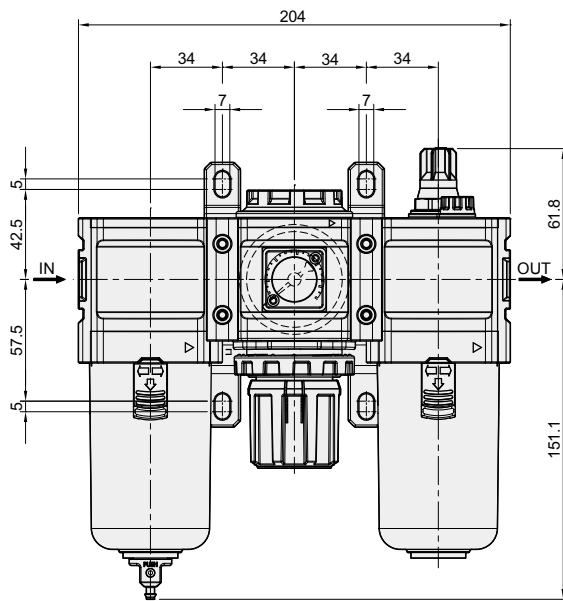


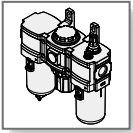
UC-400-04



UC - 400 - [] - W

Standard / Side-lock manual drain





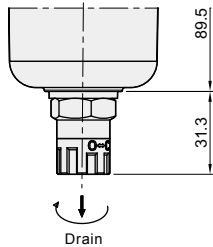
Air unit - F.R.L. Combination unit

External Dimensions

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● UC - [400] - [] - [A]

Auto drain type



● UC - [400] - [] - [A] - [F1]

Auto drain type (With fitting)

