

AIR PREPARATION UNITS

FILTER REGULATOR COMBINATION Series FRC3

Cat No FRC3 - 01 - 01 - A

FILTER REGULATOR COMBINATION - G1/4 & G1/2

Features

- ☐ Clean design
- ☐ Suitable for panel and modular mounting
- ☐ Filter
 - Bronze (or) Polyethylene filtering element
 - Screw type manual drain for easy operation
 - Quick release of bayonet bowl guard
- ☐ Regulator
 - Diaphragm operated, relieving type
 - Flow compensated (with venturi) for faster response
 - Non raising 'Press to lock' adjusting knob for locking at any set pressure
 - Inbuilt flush type pressure gauge, it can be mounted at both ends
- ☐ Good flow and regulating characteristics
- ☐ Padlock provision is provided to secure the pressure setting values
- ☐ Built in non return valve allows free air flow in reverse direction



Function

A filter regulator combines both filter and pressure regulator in a single unit. A regulator is used to control the speed and precision of the flow of air, whereas the filter cleans the air that travels from the compressor.

Technical Specifications

Model	FRC33...	FRC35...
Medium	Compressed air	
Port size	G1/4	G1/2
Flow rate @ (lts/min)	1000	4500
Working pressure range (bar)	0.8 to 10	
Regulating pressure range # (bar)	0.2 to 2, 0.2 to 4, 0.5 to 7, 0.5 to 8.5 (Standard)	
Ambient temperature ** (C)	-10° to +50°	
Medium temperature (C)	+5° to +50°	
Filtration # (µm)	1, 5, 25, 40 (standard), 50, 100	
Bowl capacity (at Maximum condensate level) (ml)	17	50
Bowl material	Polycarbonate	
Bowl guard material	Plastic	
Installation	Vertical (as shown in the picture)	
Materials of construction	Die cast Aluminium, Brass, Steel, Polycarbonate, Nitrile, Polyamide, Stainless Steel, Acetal, Bronze	
Optional accessories *	Clamp, Modular mounting kit	
Weight (kg)	0.27	0.90

@ - Supply pressure 10 bar, Set pressure 6.3 bar, Pressure drop $\Delta p = 1$ bar as per ISO standard (For standard models)

* - For details refer optional accessories Cat No APA- 01 - 05 - A

- For details see " How to order "

** - Ambient temperature +5° to +50°C for Pressure gauge and Pressure sensor model

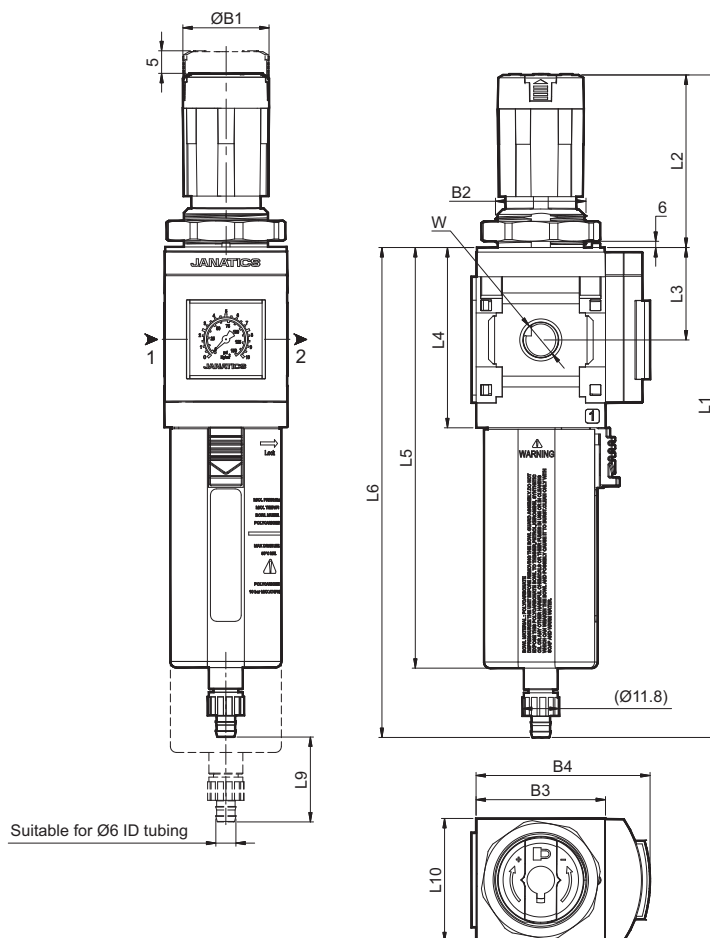
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Cat No FRC3 - 01 - 01 - A

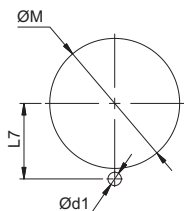
Model FRC3...

Standard

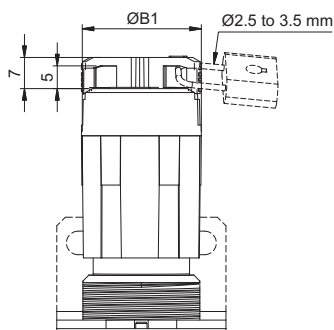


For Details of Clamp see optional accessories Cat No APA - 01 - 05 - A

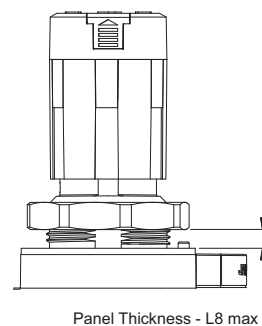
Panel Cut Hole Dimension



Pad Lock Provision



Panel Mounted



Model No.	T1	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	ØB1	B2	B3	B4	ØM	Ød1
FRC33...-M	G1/4	215	56	30	58.5	137	159	18	4.5	25	40	28	M30x1.5	42	58	31	3.2
FRC35...-M	G1/2	302	84	45.5	89.5	196	217	27	7	30	62	42.5	M45x1.5	62	77.5	46	3.5

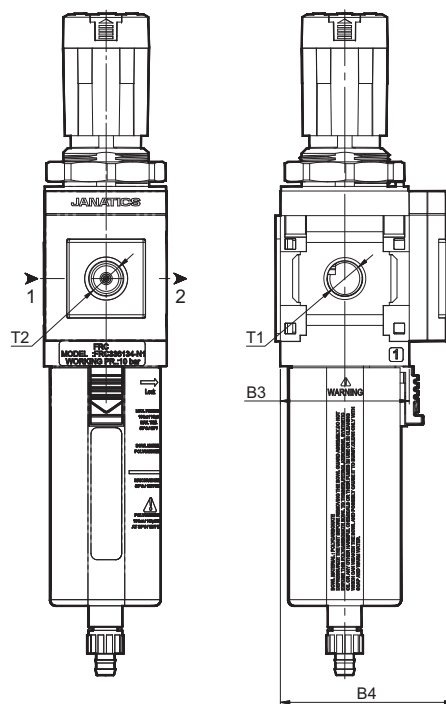
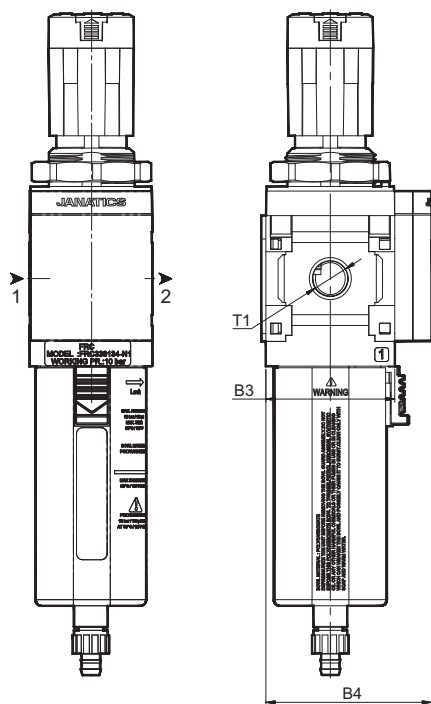
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Cat No FRC3 - 01 - 01 - A

With Front cover

With adaptor plate (Suitable for 1/8" thread)

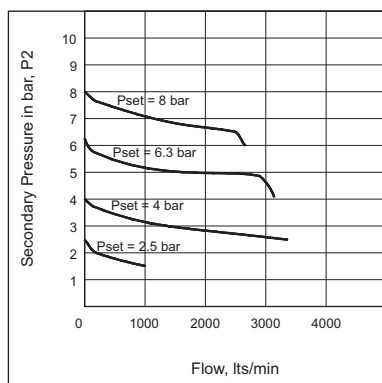


Model No.	T1	B3	B4
FRC33...-F1 series	G1/4	42	55.5
FRC35...-F1 series	G1/2	62	77.5

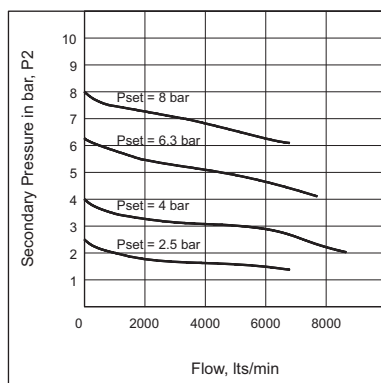
Model No.	T1	T2	B3	B4
FRC33...-F2 series	G1/4	G1/8	42	58
FRC35...-F2 series	G1/2	G1/8	62	77.5

Flow Graph

1/4" FRC



1/2" FRC



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Caution

1. Set the required pressure in regulator by visually verifying the displayed pressure values in pressure gauge.
2. For pressure setting, the knob should be operated manually. Do not use any tools for adjusting / turn the knob, it may cause damage to the knob as well as internal parts. Refer **Fig. (a)**
3. Do not adjust or turn the knob with knob locked condition and padlock fixed condition else it may damage the knob as well as internal parts. Adjust or turn the knob after removing the pad lock and knob unlocked condition. Refer **Fig. (b)**
4. Do not pull the lifter knob when the pressure adjusting knob in unlocked condition.
5. For fixing the pad lock, push the knob in downward direction for locking and then pull the lifter knob. Refer **Fig. (c)**
6. Repeated or sudden increase and decrease in pressure pulsation must be avoided because it could adversely affect the life of pressure gauge.
7. Applying pressure beyond the pressure range could damage the pressure gauge.
8. Pad lock should be selected in such way that it should exactly fit or slightly less than the slot in the lifter knob. Wrong selection will lead to malfunction.
9. Periodically drain the water so that it does not accumulate or clog the filter element.
10. Performance could be dropped if the filter element is clogged. Regularly inspect and replace the element.
11. If the bowl is heavily contaminated or its transparency has dropped, clean (or) replace with new bowl.

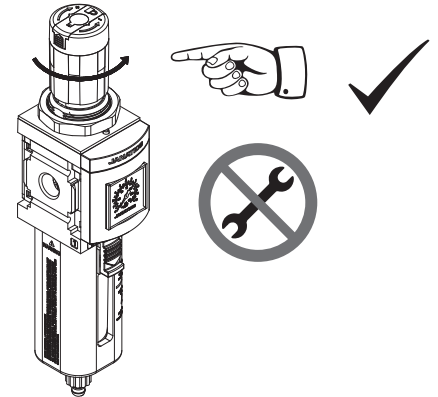


Fig. (a)

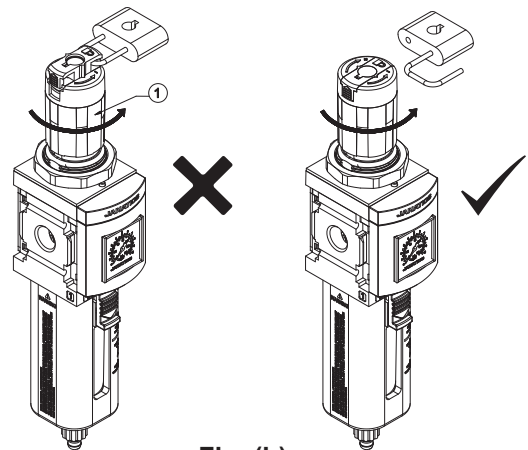


Fig. (b)

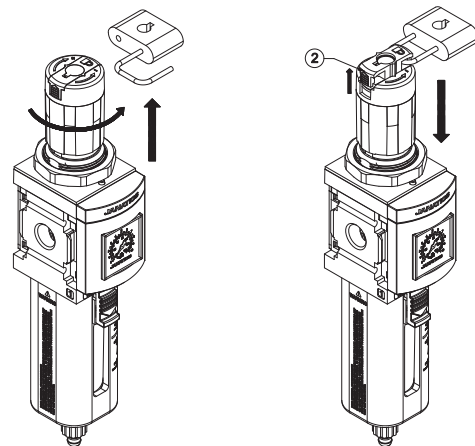


Fig. (c)

Precautions

1. Note the direction of flow before installation and connect piping accordingly.
2. Flush piping's for dirt, dust, rust and other foreign particles.
3. Install in clean atmosphere.
4. Nipples of taper threads (R) to be used with Teflon tape. Ensure Teflon tape does not enter the unit during tightening. Nipples of straight threads (G) to be used with sealing washer.

Pressure Setting

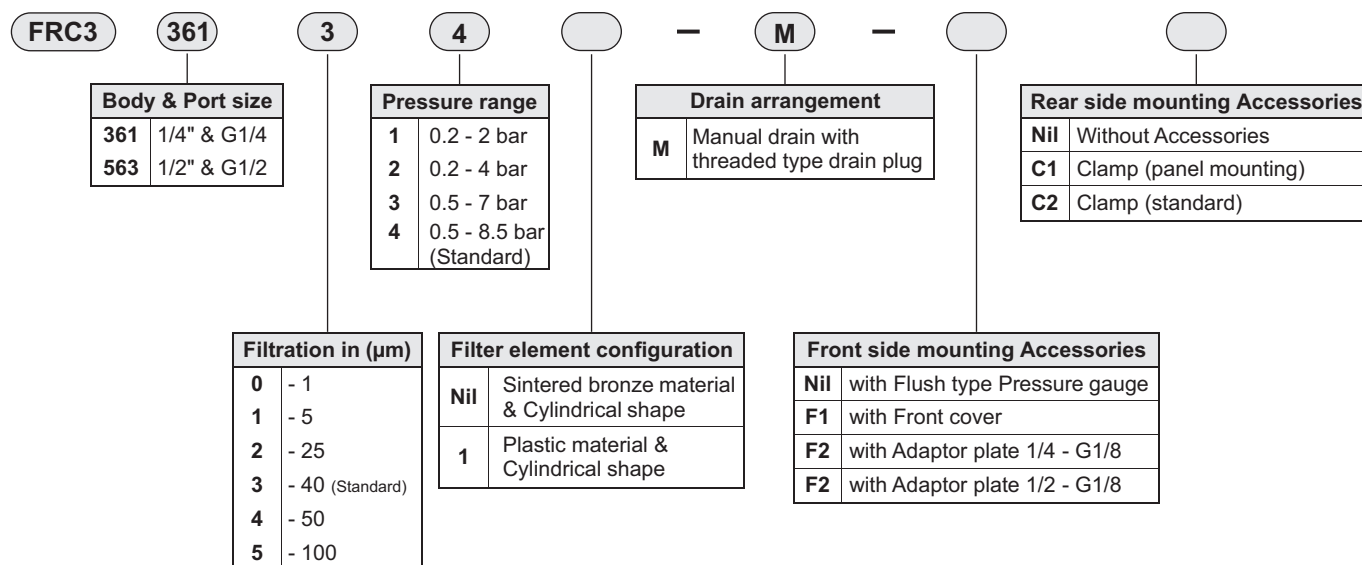
1. Pull the knob and adjust by turning the knob in clockwise direction to increase the pressure. Push the knob back to its locked position (Turning the knob counter clockwise will reduce the pressure)
2. Maintain the supply pressure, 1bar more than the set pressure value.

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How to order



Ordering example:

Filter Regulator Combination - 1/4 size (with G1/4 port) with 5µm Filter, Pressure range 0.5 - 7 bar, Plastic material filter element, with Front cover and Clamp (standard) - **Ordering No : FRC3361131-M-F1C2**

If ordered as FRC 1/4 our standard model **FRC336134-M**, with 40µm filter, pressure range 0.5 - 8.5 bar and with Flush type pressure gauge will be supplied.