

AIR PREPARATION UNITS

FRCL MODULAR Series FRCLM1

Cat No FRCLM1 - 01 - 01

FILTER REGULATOR COMBINATION - LUBRICATOR, MODULAR 1/4 3/8 1/2

Features

- ☐ Modular type for easy and fast maintenance.
- ☐ Suitable for wall mounting.
- ☐ Filter
 - Bronze filtering element.
 - Separator and shield for efficient moisture separation.
 - Press type manual drain for easy operation
- ☐ Regulator
 - Diaphragm operated, relieving type.
 - Pressure compensated by Balanced poppet.
 - Flow compensated in models FRCLM14 and FRCLM15 for faster response.
 - Non raising ' Press to lock ' adjusting knob for locking at any set pressure.
- ☐ Lubricator
 - Fog / Mist type Lubricator.
 - Fine adjustment of lubrication.
 - Lubrication proportional to flow.
- ☐ Steel bowl guard, bayonet type on FRCLM14 & FRCLM15 models and threaded type on FRCLM13 model.
- ☐ Good flow and regulating characteristics.

Model FRCLM1.../W



Model FRCLM1.../S



Technical Specifications

Model	FRCLM13.../W	FRCLM13.../S	FRCLM14.../W	FRCLM14.../S	FRCLM15.../W	FRCLM15.../W
Medium	Compressed air					
Port size	G 1 / 4		G 3 / 8		G 1 / 2	
Pressure gauge port size	G 1 / 8		G 1 / 8		G 1 / 8	
Flow rate lts / min @	500		1250		2800	
Max Supply pressure	10 bar					
Regulating Pressure Range #	0.2 - 2 bar, 0.2 - 4 bar, 0.5 - 7 bar, 0.5 - 10 bar (Standard)					
Ambient / Medium temperature	5° - 60° C					
Filtration #	5 µm, 25 µm, 40 µm (standard), 50 µm, 100 µm					
Min operating flow lts / min	12		40		45	
Bowl capacity Filter (at maximum condensate level)	9 ml		32 ml		44 ml	
Bowl capacity Lubricator (at maximum condensate level)	20 ml		57 ml		152 ml	
Recommended oil	ISO VG 32 (Servo System 32)					
Bowl material	Polycarbonate					
Installation	Vertical (as shown in the picture)					
Materials of construction	Aluminium, Bronze, Brass, Steel, Acetal, Polycarbonate, SS, Nitrile					
Weight	0.54 Kg	0.51 Kg	1 Kg	0.95 Kg	2.01 Kg	1.92 Kg
Optional accessories *	Pressure gauge					

@ Supply pressure 7 bar , Set pressure 6 bar , Pressure drop Δ p = 1 bar (For standard models)

For details see " How to order "

★ For details refer optional accessories Cat No. APA - 01

Precautions

- Note the direction of flow before installation and connect piping accordingly.
- Flush pipings for dirt, dust, rust and other foreign particles.
- Install in clean atmosphere.
- Nipples of taper threads (R) to be used with teflon tape. Ensure teflon tape doesnot enter the unit during tightening.
Nipples of straight threads (G) to be used with sealing washer.
- Polycarbonate bowls may get damaged and possibly fail if exposed to synthetic oils, thinner, solvents, trichloroethylene, kerosene or other aromatic hydrocarbons.

Pressure Setting

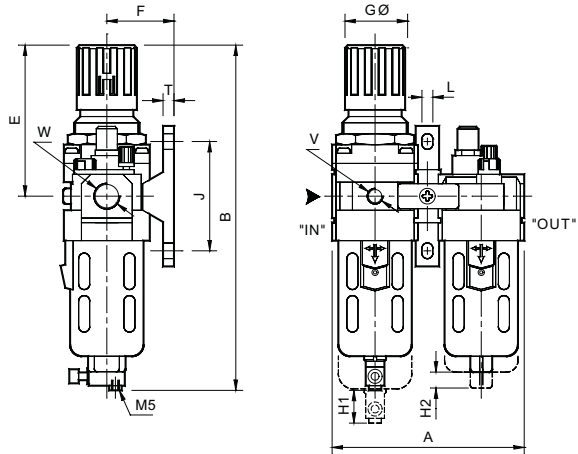
Pull the knob and adjust by turning the knob clockwise to increase the pressure. Push the knob back to its locked position.
(Turning the knob counter clockwise will reduce the pressure)

AIR PREPARATION UNITS

FRCL MODULAR Series FRCLM1

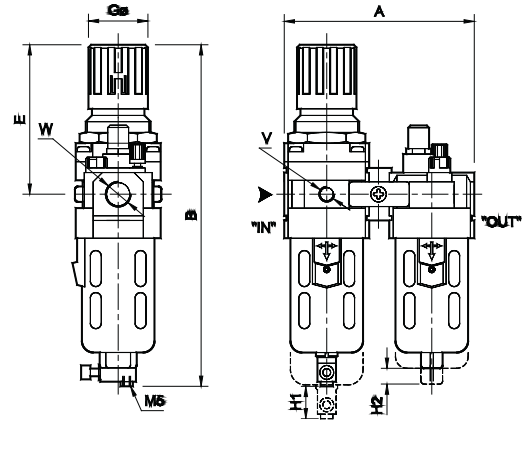
Cat No FRCLM1 - 01 - 01

Model FRCLM1.../W



Model	W	V	A	B	E	F	GØ	J	L	T	H1	H2
FRCLM13.../W	G1/4	G1/8	92	170	68	35	28	50	7	7	50	35
FRCLM14.../W	G3/8	G1/8	124	220	95	45	40	70	7	7	55	45
FRCLM15.../W	G1/2	G1/8	156	280	125	55	51	90	9	9	80	45

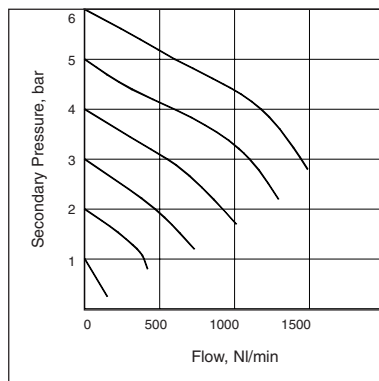
Model FRCLM1.../S



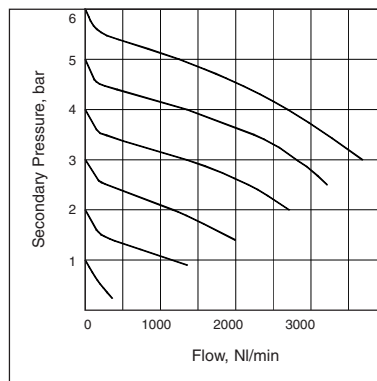
Model	W	V	A	B	E	GØ	H1	H2
FRCLM13.../S	G1/4	G1/8	92	170	68	28	50	35
FRCLM14.../S	G3/8	G1/8	124	220	95	40	55	45
FRCLM15.../S	G1/2	G1/8	156	280	125	51	80	45

Flow Graphs

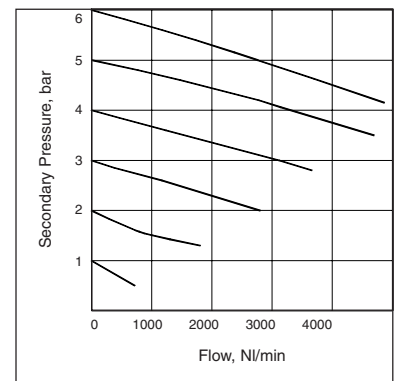
1/4" FRCLM



3/8" FRCLM



1/2" FRCLM



How to order

FRCLM1



Body & Port size

3 6 1 -- G 1 / 4
4 6 2 -- G 3 / 8
5 6 3 -- G 1 / 2



Filtration in µm

1 --- 5 µm
2 --- 25 µm
3 --- 40 µm (Standard)
4 --- 50 µm
5 --- 100 µm



Pressure Range

1 -- 0.2 - 2 bar
2 -- 0.2 - 4 bar
3 -- 0.5 - 7 bar
4 -- 0.5 - 10 bar (Standard)

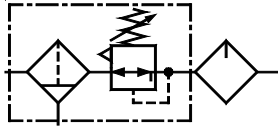


Mounting

W - Wall mounting bracket
S - Spacer

Ordering example : Filter Regulator Combination and Lubricator Modular - 3/8 size (with G3/8 port) and wall mounting bracket with 5µm Filter and pressure range 0.5 - 7 bar : Ordering No: FRCLM146213 / W.

Subject to change



AIR PREPARATION UNITS

FRCL MODULAR Series FRCLM1

Cat No FRCLM1 - 1 - 03 - 01

FILTER REGULATOR COMBINATION - LUBRICATOR, MODULAR - 3/4 & 1" SIZES

Features

- ☐ Modular type for easy and fast maintenance.
- ☐ Suitable for wall mounting.
- ☐ Filter
 - Bronze filtering element.
 - Separator and shield for efficient moisture separation.
 - Press type manual drain for easy operation.
- ☐ Regulator
 - Diaphragm operated, relieving type.
 - Pressure compensated by balanced poppet.
 - Flow compensated (with venturi) for faster response
 - Non raising ' Press to lock ' adjusting knob for locking at any set pressure.
- ☐ Lubricator
 - Fog / Mist type Lubricator.
 - Fine adjustment of lubrication.
 - Lubrication proportional to flow.
- ☐ Steel bowl guard, bayonet type.
- ☐ Good flow and regulating characteristics.

Model FRCLM17.../W



Model FRCLM17.../S



Technical Specifications

Model	FRCLM 1764.../W	FRCLM 1764.../S	FRCLM 1765.../W	FRCLM 1765.../S
Medium	Compressed air			
Port size	G3/4		G1	
Pressure gauge port size	G1/4			
Flow rate lts / min @	3500		4000	
Max Supply pressure	10 bar			
Regulating Pressure Range #	0.2 - 2 bar, 0.2 - 4 bar, 0.5 - 7 bar, 0.5 - 10 bar (Standard)			
Ambient / Medium temperature	5° - 60° C			
Filtration #	1 µm, 5 µm, 25 µm, 40 µm (standard), 50 µm, 100 µm			
Min operating flow lts / min	50		50	
Bowl capacity Filter (at maximum condensate level)	165 ml		165 ml	
Bowl capacity Lubricator (at maximum condensate level)	165 ml		165 ml	
Recommended oil	ISO VG 32 (Servo System 32)			
Bowl material	Polycarbonate			
Installation	Vertical (as shown in the picture)			
Materials of construction	Aluminium, Bronze, Brass, Steel, Acetal, Polycarbonate, SS, Nitrile			
Optional accessories *	Modular mounting kit, Pressure gauge			
Weight	3.690	3.545	3.635	3.490

@ Supply pressure 7 bar, Set pressure 6 bar, Pressure drop $\Delta p = 1 \text{ bar}$ (For standard models)

For details see " How to order "

* For details refer optional accessories Cat No. APA - 02

Pressure Setting

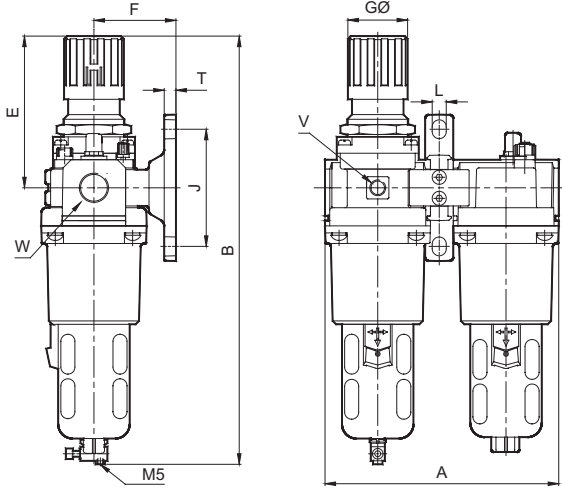
Pull the knob and adjust by turning the knob clockwise to increase the pressure. Push the knob back to its locked position.
(Turning the knob counter clockwise will reduce the pressure)

AIR PREPARATION UNITS

FRCL MODULAR Series FRCLM1

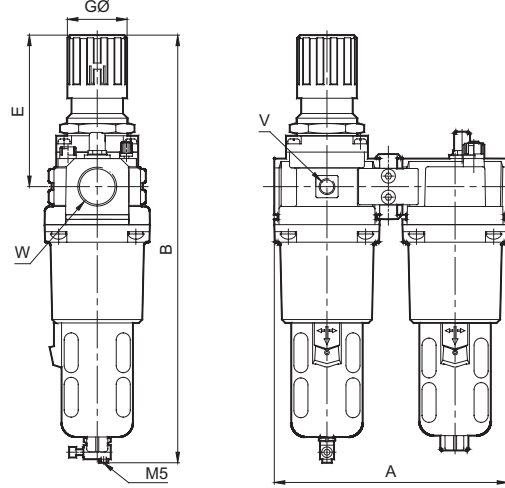
Cat No FRCLM1 - 1 - 03 - 01

Model FRCLM17.../W



Model	W	V	A	B	E	F	GØ	J	L	T
FRCLM17.../W	G3/4	G1/4	200	370	130	70	51	100	12	10
FRCLM17.../W	G1	G1/4	200	370	130	70	51	100	12	10

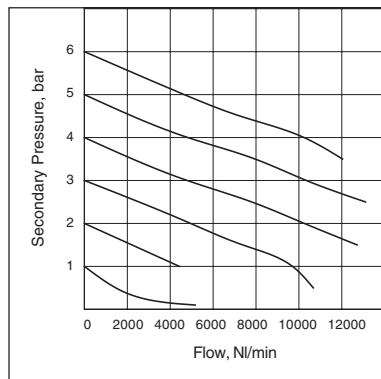
Model FRCLM17.../S



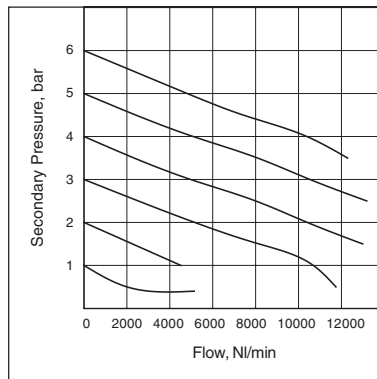
Model	W	V	A	B	E	GØ
FRCLM17.../S	G3/4	G1/4	200	370	130	51
FRCLM17.../S	G1	G1/4	200	370	130	51

Flow Graphs

3/4" FRCLM



1" FRCLM



Flow graphs are for 40µm filtrations only

How to order

FRCLM1

Body & Port size
7 6 4 -- G 3 / 4
7 6 5 -- G 1

Filtration µm
0 --- 1 µm
1 --- 5 µm
2 --- 25 µm
3 --- 40 µm (Standard)
4 --- 50 µm
5 --- 100 µm

Pressure Range
1 -- 0.2 - 2 bar
2 -- 0.2 - 4 bar
3 -- 0.5 - 7 bar
4 -- 0.5 - 10 bar (Standard)

Mounting
W - Wall mounting bracket
S - Spacer

Ordering example :- Filter Regulator Combination and Lubricator Modular - 3/4 size (with G3/4 port) and wall mounting bracket, with 5µm Filter and pressure range 0.5 - 7 bar : Ordering No : FRCLM 176413 / W.

Precautions

- Note the direction of flow before installation and connect piping accordingly.
- Flush pipings for dirt, dust, rust and other foreign particles.
- Install in clean atmosphere.
- Nipples of taper threads (R) to be used with teflon tape. Ensure teflon tape doesnot enter the unit during tightening.
Nipples of straight threads (G) to be used with sealing washer.
- Polycarbonate bowls may get damaged and possibly fail if exposed to synthetic oils, thinner, solvents, trichloroethylene, kerosene or other aromatic hydrocarbons.

Subject to change