

AIR PREPARATION UNITS

FRL MODULAR Series FRLM1

Cat No FRLM1 - 01 - 01

FILTER - REGULATOR - 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 FRLM14 and FRLM15 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 FRLM14 & FRLM15 models and threaded type on FRLM13 model.
- ☐ Good flow and regulating characteristics.

Model FRLM1.../W



Model FRLM1.../S



Technical Specifications

Model	FRLM13.../W	FRLM13.../S	FRLM14.../W	FRLM14.../S	FRLM15.../W	FRLM15.../S
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		2000		3500	
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 oil 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	Any position for Regulator. Vertical for Filter and Lubricator					
Materials of construction	Aluminium, Bronze, Brass, Steel, Acetal, Polycarbonate, SS, Nitrile					
Weight	0.63 Kg	0.60 Kg	1.23 Kg	1.18 Kg	2.39 Kg	2.30 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

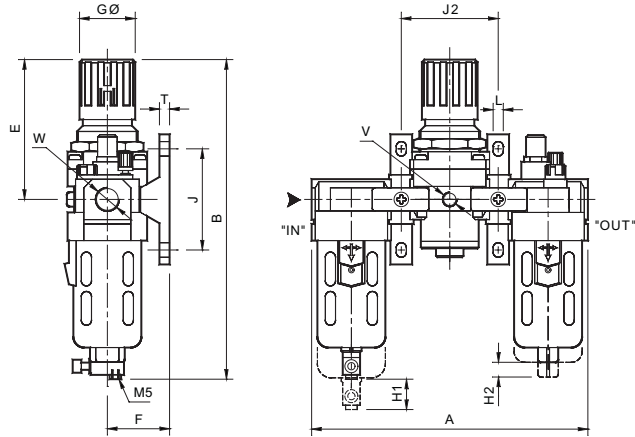
Pull the knob and adjust by turning the knob clockwise to increase the pressure.Push the knob back to its locked position.
(Turning the knob counter clockwise will reduce the pressure)

AIR PREPARATION UNITS

FRL MODULAR Series FRLM1

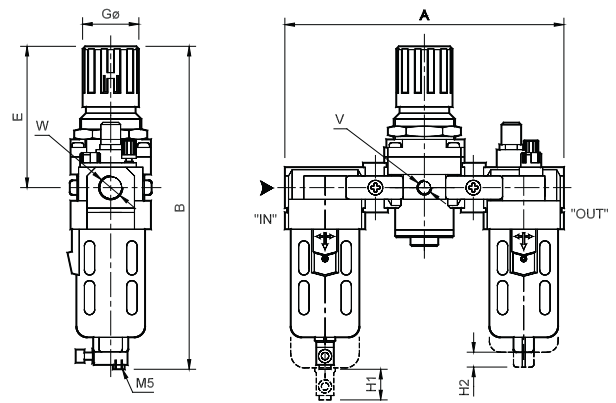
Cat No FRLM1 - 01 -01

Model FRLM1.../ W



Model	W	V	A	B	E	F	GØ	J	L	T	H1	H2	J2
FRLM13.../W	G1/4	G1/8	146	170	68	35	28	50	7	7	50	35	52
FRLM14.../W	G3/8	G1/8	192	220	95	45	40	70	7	7	55	45	69
FRLM15.../W	G1/2	G1/8	241	280	125	55	51	90	9	9	80	45	86

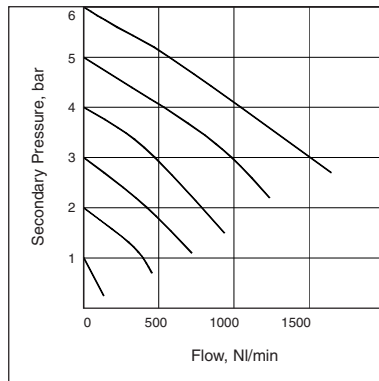
Model FRLM1.../S



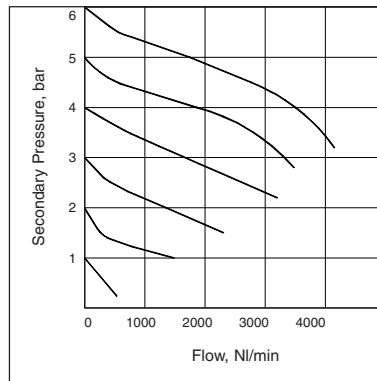
Model	W	V	A	B	E	GØ	H1	H2	J2
FRLM13.../S	G1/4	G1/8	146	170	68	28	50	35	52
FRLM14.../S	G3/8	G1/8	192	220	95	40	55	45	69
FRLM15.../S	G1/2	G1/8	241	280	125	51	80	45	86

Flow Graphs

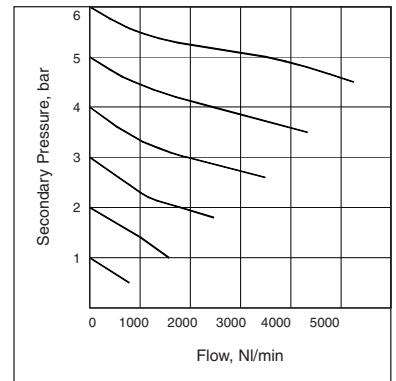
1/4" FRLM



3/8" FRLM



1/2" FRLM



How to order

FRLM1



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

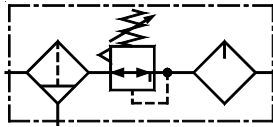
1 -- 0.2 - 2 bar
2 -- 0.2 - 4 bar
3 -- 0.5 - 7 bar
4 -- 0.5 - 10 bar (Standard)

Mounting

W - Wall mounting bracket
S - Spacer

Ordering example : Filter Regulator Lubricator Modular - 3/8 (with G3/8 port size) and wall mounting bracket, with 5µm Filter and pressure range 0.5 - 7 bar: Ordering No : FRLM146213 / W.

Subject to change



AIR PREPARATION UNITS

FRL MODULAR Series FRLM1

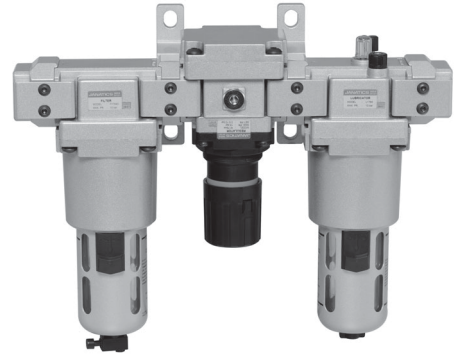
Cat No FRLM1 - 1 - 02 - 01

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

Individual Filter, Regulator & Lubricator units easily removable / mountable without disturbing the pipe line

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.



Technical Specifications

Model	FRLM17...	
Medium	Compressed air	
Port size	G3/4	G1
Pressure gauge port size	G1/4	
Flow rate lts / min @	3500	5000
Max Supply pressure	10 bar	
Ambient / Medium temperature	5° - 60° C	
Regulating Pressure Range #	0.2 - 2 bar, 0.2 - 4 bar, 0.5 - 7 bar, 0.5 - 10 bar (Standard)	
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, Steel, Acetal, Polycarbonate, SS, Nitrile	
Optional accessories *	Modular mounting kit, Pressure gauge	
Weight	4.930	4.865

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

For details see " How to order "

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

Pressure Setting

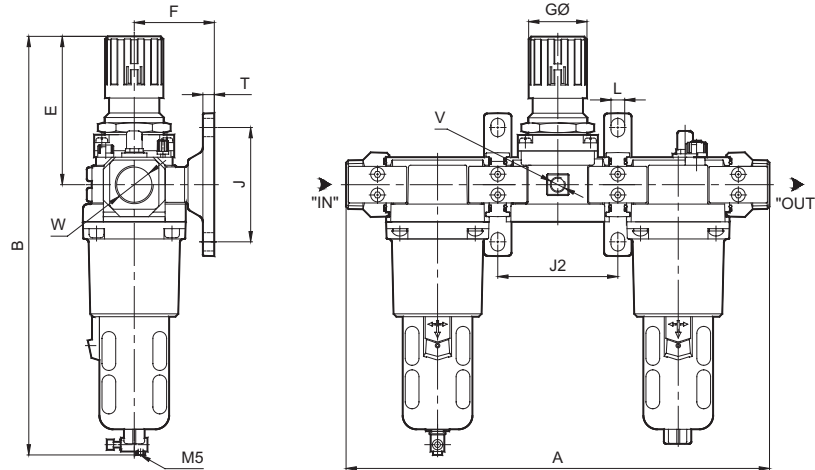
Pull the knob and adjust by turning the knob clockwise to increase the pressure. Push the knob back to its locked position.
(Turning the knob counter clockwise will reduce the pressure)

AIR PREPARATION UNITS

FRL MODULAR Series FRLM 1

Cat No FRLM1 - 1 - 02 - 01

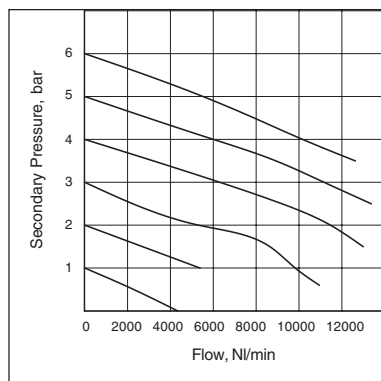
Model FRLM1764, FRLM1765



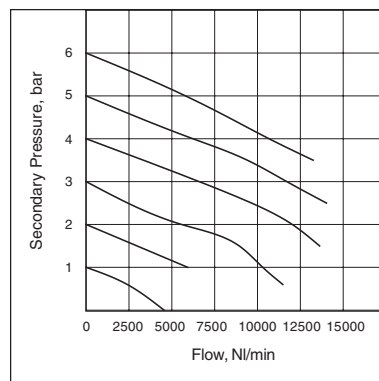
Model	W	V	A	B	E	F	GØ	J	L	T	J2
FRLM 1764	G3/4	G1/4	370	366	130	70	51	100	12	10	105
FRLM 1765	G1	G1/4	370	366	130	70	51	100	12	10	105

Flow Graphs

3/4" FRLM



1" FRLM



Flow graphs are for 40µm filtrations only

How to order

FRLM 1

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

Filteration 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)

Ordering example : Filter Regulator Lubricator Modular - 3/4 (with G3/4 port size) with 5µm Filter and pressure range 0.5 - 7 bar : Ordering No : FRLM 176413.
If ordered as 3/4 FRLM, our standard model FRLM 176434, with 40µm Filter and pressure range 0.5 - 10 bar will be supplied.

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 does not 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