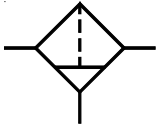


Air Preparation Units

FRLs - Sizes : 1/4" , 3/8" , 1/2"

- Air Filter**
- Regulator**
- Lubricator**
- Filter Regulator Combination**
- Filter Regulator Combination - Lubricator , Modular unit**
- Filter - Regulator - Lubricator , Modular unit**
- Accessories**



AIR PREPARATION UNITS

FILTER Series F1

Cat No F1 - 02 - 01

AIR FILTER 1/4 3/8 1/2

Features

- Conforms to ISO 5782 -1.
- Suitable for Modular mounting.
- Steel bowl guard, bayonet type on
- F14 & F15 models and threaded type on F13 model.
- Press type Manual drain for easy operation.
- Bronze filtering element.
- Separator and shield for efficient moisture separation.

Technical Specification

Model	F13	F14	F15
Medium	Compressed air		
Port size	NPT 1 / 4	NPT 3 / 8	NPT 1 / 2
Flow rate in scfm (NI / min) @	28.25 (800)	79.46 (2250)	123.6 (3500)
Max Supply pressure in psi (bar)	140 (10)		
Ambient / Medium temperature	41° – 120 ° F (5 ° – 50 ° C)		
Filtration in microns #	5, 25, 40 (standard), 50, 100		
Bowl capacity (at maximum condensate level)	0.30 ounce (9 ml)	1.08 ounce (32 ml)	1.48 ounce (44 ml)
Bowl material	Polycarbonate		
Installation	Vertical (as shown in the picture)		
Materials of construction	Aluminium, Bronze, Steel, Acetal, Polycarbonate, SS, Nitrile		
Weight in lb (Kg)	0.418 (0.19)	0.704 (0.32)	1.32 (0.60)
Optional accessories *	Clamp , Modular mounting kit		

© Supply pressure 85.3 psi (6 bar) , pressure drop $\Delta p = 4.27$ psi (0.3 bar) (For standard models).

For details see " How to order ".

* For details refer Optional accessories Cat No APA - 02 - 01.

Precautions

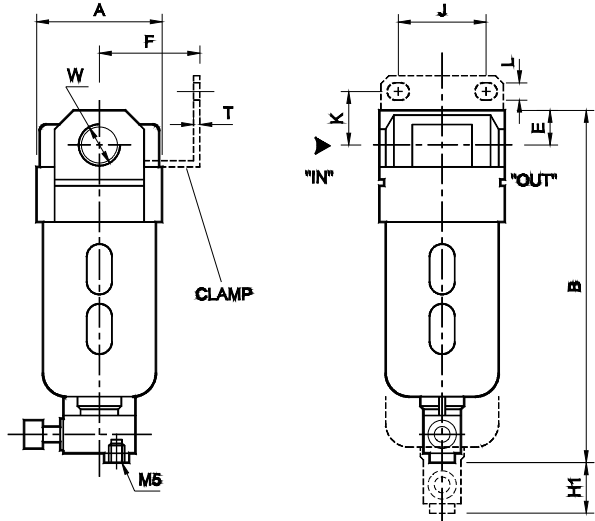
1. Note the direction of flow before installation and connect piping accordingly.
2. Flush pipings for dirt, dust, rust and other foreign particles.
3. Install in clean atmosphere.
4. Nipples with taper threads to be used with teflon tape. Ensure teflon tape does not enter the unit during tightening.
5. Polycarbonate bowls may get damaged and possibly fail if exposed to synthetic oils, thinner, solvents, trichloroethylene, kerosene or other aromatic hydrocarbons.

AIR PREPARATION UNITS

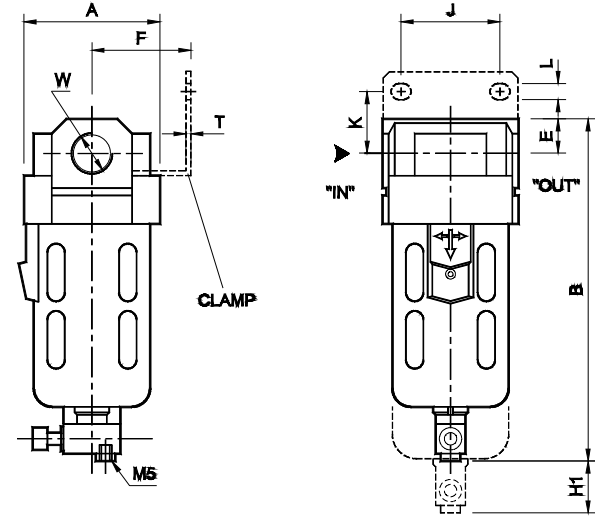
FILTER Series F1

Cat No F1 - 02 - 01

Model F13



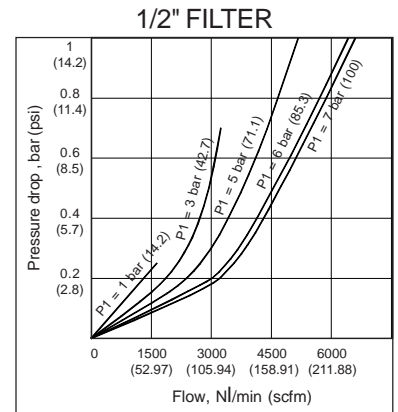
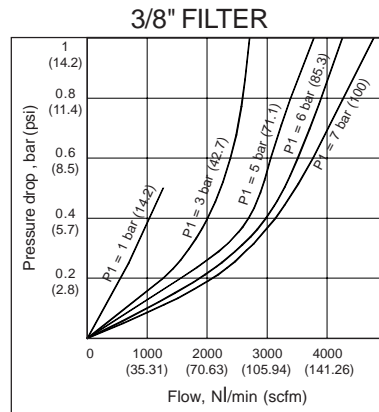
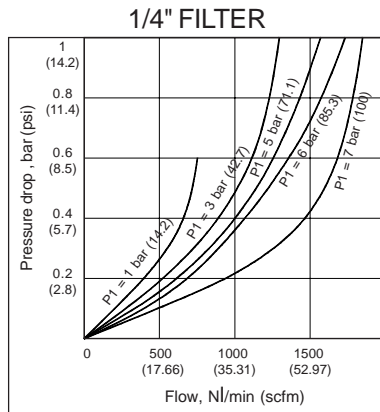
Model F14 & F15



For Details of Clamp see optional accessories Cat No APA - 02 - 01

Model	W		A	B	E	K	F	J	L	T	H1
F 13	NPT 1 / 4	Inch (mm)	1.575 (40 [□])	4.449 (113)	0.43 (11)	0.59 (15)	1.181 (30)	1.102 (28)	0.216 (5.5)	0.079 (2)	1.968 (50)
F 14	NPT 3 / 8	Inch (mm)	2.165 (55 [□])	5.512 (140)	0.55 (14)	0.98 (25)	1.575 (40)	1.575 (40)	0.256 (6.5)	0.079 (2)	2.165 (55)
F 15	NPT 1 / 2	Inch (mm)	2.756 (70 [□])	6.772 (172)	0.71 (18)	0.98 (25)	1.968 (50)	2.165 (55)	0.335 (8.5)	0.079 (2)	3.15 (80)

Flow Graphs



How to order

F 1

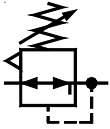


Body & Port size
3 9 1 -- NPT 1 / 4
4 9 2 -- NPT 3 / 8
5 9 3 -- NPT 1 / 2



Filteration in microns
1 --- 5
2 --- 25
3 --- 40 (Standard)
4 --- 50
5 --- 100

Ordering example:- Filter - 3 / 8 size (with NPT 3 / 8 port) with 50 microns filter: Ordering No: F1492 4
If ordered as 3 / 8 " Filter, our standard model F1492 3, with 40 microns will be supplied.



AIR PREPARATION UNITS

REGULATOR Series R1

Cat No R1 - 02 - 01

AIR REGULATOR 1/4 3/8 1/2

Features

- Conforms to ISO 6953 -1
- Suitable for panel and modular mountings
- Non raising ' Press to Lock' adjusting knob for locking at any set pressure
- Diaphragm operated, relieving type
- Pressure compensated by Balanced poppet.
- Flow compensated in models R14 and R15 (with venturi) for faster response
- Good flow and regulating characteristics.

Technical Specification

Model	R13	R14	R15
Medium	Compressed air - Filtered		
Port size	NPT 1 / 4	NPT 3 / 8	NPT 1 / 2
Pressure gauge port size	NPT 1 / 8		
Flow rate in scfm (NI / min) @	21.2 (600)	88.3 (2500)	141.26 (4000)
Max Supply pressure in psi (bar)	225 (15)		
Regulating Pressure Range in psi (bar) #	2.9 – 28 (0.2 – 2), 2.9 – 57 (0.2 – 4), 7.25 – 100 (0.5 – 7), 7.25 - 140 (0.5 – 10) (Standard)		
Ambient / Medium temperature	41° – 120 ° F (5 ° – 50 ° C)		
Installation	Any position		
Materials of construction	Aluminium, Brass, Steel, Acetal, SS, Nitrile		
Weight in lb (Kg)	0.33 (0.15)	0.88 (0.40)	1.98 (0.90)
Optional accessories *	Clamp, Modular mounting kit, Pressure gauge		

@ Supply pressure 100 psi (7 bar) , Set pressure 85.3 psi (6 bar) , Pressure drop $\Delta p = 14.2$ psi (1bar) (For standard models)

For details see " How to order "

* For details refer optional accessories Cat No APA - 02 - 01

Precautions

1. Note the direction of flow before installation and connect piping accordingly.
2. Flush pipings for dirt, dust, rust and other foreign particles.
3. Install in clean atmosphere.
4. Nipples with taper threads to be used with teflon tape. Ensure teflon tape does not enter the unit during tightening.

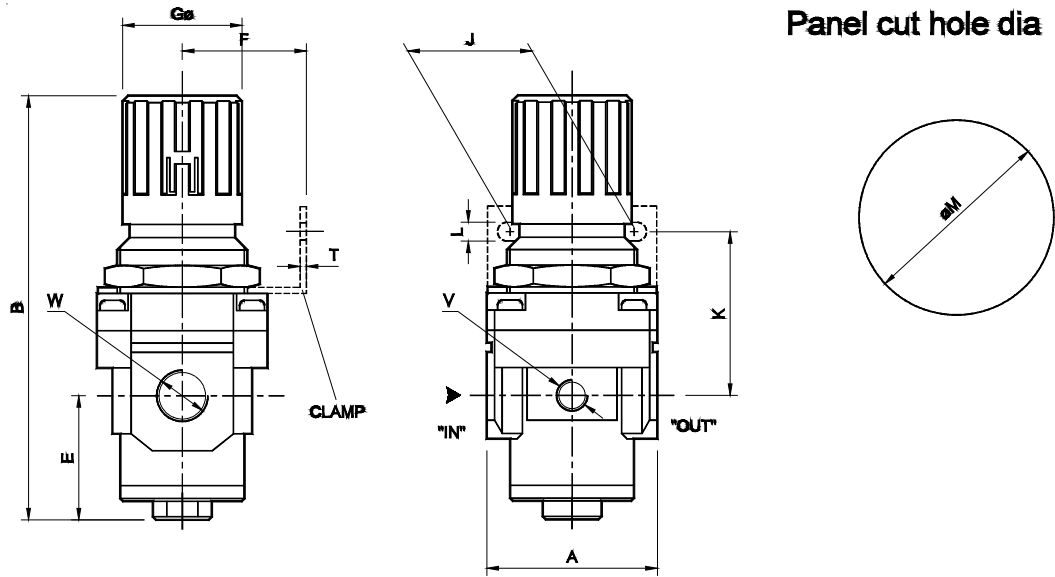
Pressure Setting

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

REGULATOR Series R1

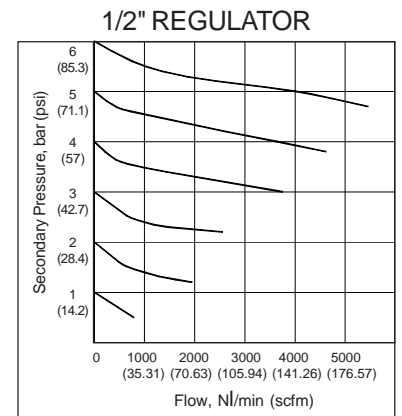
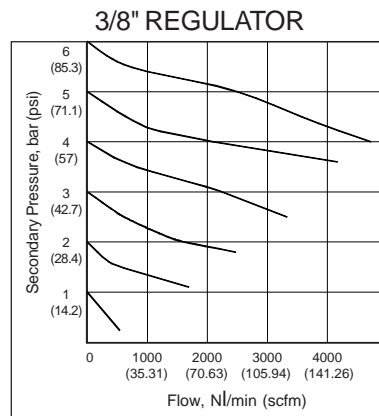
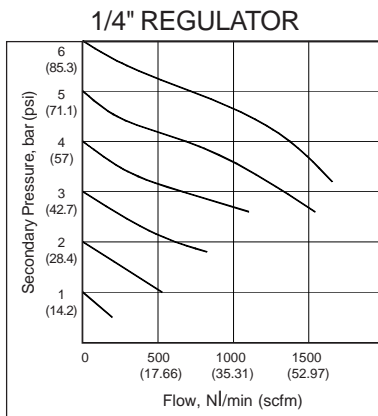
Cat No R1 - 02 - 01



For Details of Clamp see optional accessories Cat No. APA - 02 - 01

Model	W	V		A	B	E	F	GØ	J	K	L	T	ØM
R 1 3	NPT 1/4	NPT 1/8	Inch (mm)	1.575 (40 [□])	3.189 (81)	0.512 (13)	1.181 (30)	1.102 (28)	1.102 (28)	1.771 (45)	0.216 (5.5)	0.079 (2)	1.22 (31)
R 1 4	NPT 3/8	NPT 1/8	Inch (mm)	2.165 (55 [□])	5.315 (135)	1.575 (40)	1.574 (40)	1.574 (40)	1.574 (40)	2.087 (53)	0.256 (6.5)	0.079 (2)	1.693 (43)
R 1 5	NPT 1/2	NPT 1/8	Inch (mm)	2.756 (70 [□])	6.496 (165)	1.575 (40)	1.968 (50)	2.008 (51)	2.165 (55)	2.441 (62)	0.335 (8.5)	0.079 (2)	2.087 (53)

Flow Graphs



How to order

R 1



Body & Port size

3 9 1 -- NPT 1 / 4
4 9 2 -- NPT 3 / 8
5 9 3 -- NPT 1 / 2



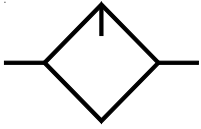
Pressure Range in psi (bar)

1 --- 2.9 - 28 (0.2 - 2)
2 --- 2.9 - 57 (0.2 - 4)
3 --- 7.25 - 100 (0.5 - 7)
4 --- 7.25 - 140 (0.5 - 10) (Standard)

Ordering example:- Regulator - 3 / 8 size (with NPT 3 / 8 port), with pressure range 7.25 - 100 psi: Ordering No: R1492 3.
If ordered as 3 / 8 " Regulator, our standard model R1492 4, NPT 3 / 8 with pressure range 7.25 - 140 psi will be supplied.



- For safety instructions, please refer instruction manual IS - R1 - 02 - 01



AIR PREPARATION UNITS

LUBRICATOR Series L1

Cat No L1 - 02 - 01

LUBRICATOR 1/4 3/8 1/2

Features

- Conforms to ISO 6301 -1
- Suitable for modular mounting
- Fog / Mist type
- Fine adjustment of lubrication
- Steel bowl guard, bayonet type on L14 & L15 models and threaded type on L13 model
- Lubrication proportional to flow

Technical Specification

Model	L13	L14	L15
Medium	Compressed air - Filtered		
Port size	NPT 1 / 4	NPT 3 / 8	NPT 1 / 2
Flow rate in scfm (NI / min) @	47.7 (1350)	106 (3000)	199.6 (5650)
Max Supply pressure in psi (bar)	140 (10)		
Ambient / Medium temperature	41° – 120 ° F (5 ° – 50 ° C)		
Min operating flow in scfm (NI / min)	0.424 (12)	1.41 (40)	1.6 (45)
Bowl capacity (at maximum condensate level)	0.68 ounce (20 ml)	1.98 ounce (57 ml)	5.13 ounce (152 ml)
Recommended oil	ISO VG 32 (Servo System 32 / Mobil DTE Light)		
Bowl material	Polycarbonate		
Installation	Vertical (as shown in the picture)		
Materials of construction	Aluminium, Bronze, Steel, Acetal, Polycarbonate, SS, Nitrile		
Weight in lb (Kg)	0.407 (0.185)	0.66 (0.30)	1.232 (0.56)
Optional accessories *	Clamp, Modular mounting kit		

@ Supply pressure 85.3 psi (6 bar) , pressure drop $\Delta p = 7.25$ psi (0.5 bar) (For standard models)

* For details refer optional accessories Cat No: APA - 02 - 01

Precautions

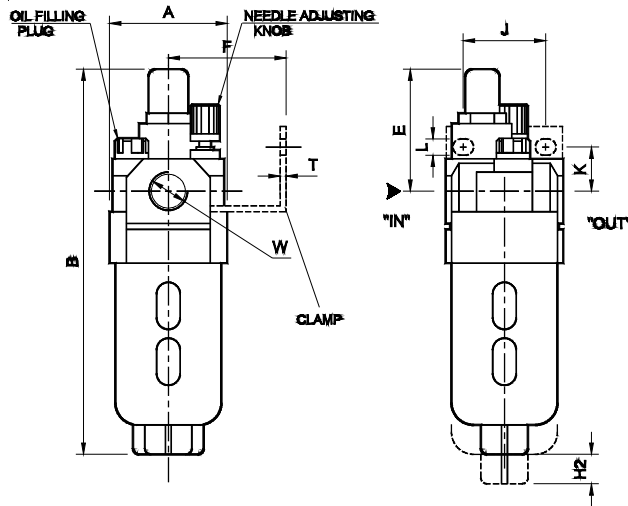
1. Note the direction of flow before installation and connect piping accordingly.
2. Flush pipings for dirt, dust, rust and other foreign particles.
3. Install in clean atmosphere.
4. Nipples with taper threads to be used with teflon tape. Ensure teflon tape does not enter the unit during tightening.
5. Polycarbonate bowls may get damaged and possibly fail if exposed to synthetic oils, thinner, solvents, trichloroethylene, kerosene or other aromatic hydrocarbons.
6. Oil may be filled when under pressure. However it is recommended to vent the air completely before filling the oil.

AIR PREPARATION UNITS

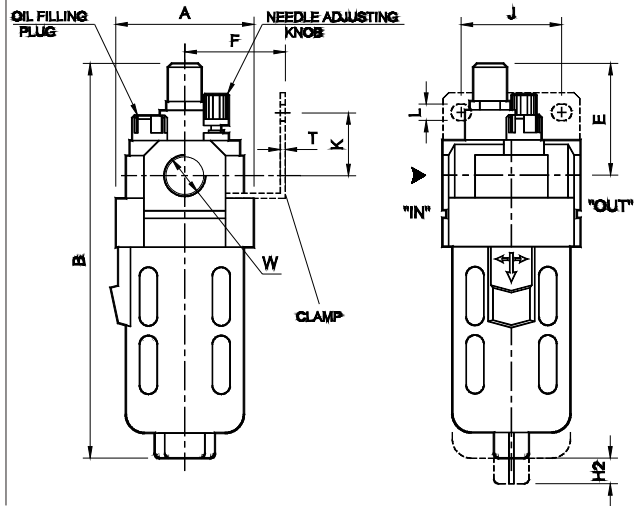
LUBRICATOR Series L1

Cat No L1 - 02 - 01

Model L13



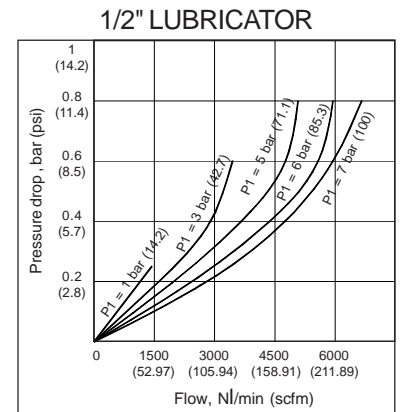
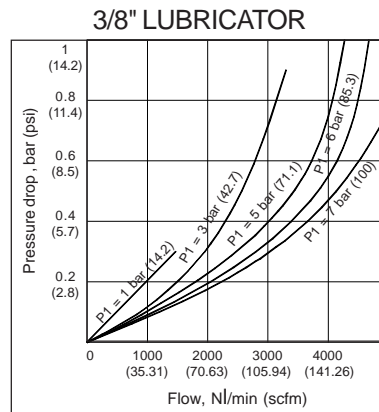
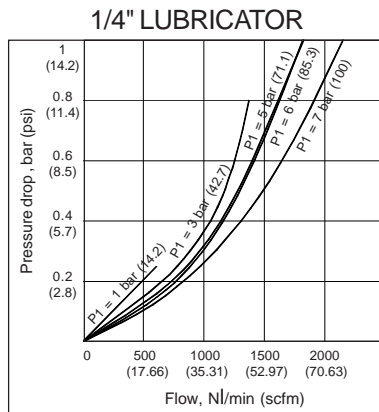
Model L14 & L15



For Details of Clamp see optional accessories Cat No APA - 02 - 01

Model	W		A	B	E	F	J	K	L	T	H2
L 1 3	NPT 1/4	Inch (mm)	1.575 (40 [□])	5.315 (135)	1.653 (42)	1.181 (30)	1.968 (28)	0.59 (15)	0.216 (5.5)	0.079 (2)	1.378 (35)
L 1 4	NPT 3/8	Inch (mm)	2.165 (55 [□])	6.181 (157)	1.732 (44)	1.575 (40)	1.575 (40)	0.984 (25)	0.256 (6.5)	0.079 (2)	1.772 (45)
L 1 5	NPT 1/2	Inch (mm)	2.756 (70 [□])	7.48 (190)	1.811 (46)	1.968 (50)	2.165 (55)	0.984 (25)	0.335 (8.5)	0.079 (2)	1.772 (45)

Flow Graphs



How to order

L 1



Body & Port size

- 3 9 1 -- NPT 1 / 4
- 4 9 2 -- NPT 3 / 8
- 5 9 3 -- NPT 1 / 2

Principle of Operation

A part of the air entering the Lubricator through " IN " pressurises the bowl chamber.

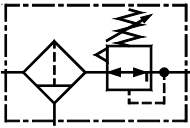
Flow of full air goes through " OUT " deflecting the " Deflector " and creating pressure drop below the sight dome .

The pressure in the Bowl presses the oil through the suction tube and the oil flows through the sight dome. All the oil drops seen through the sight dome mixes with the main - stream air and comes through " OUT " . The required oil drops can be adjusted by the adjusting needle.

Ordering example: Lubricator - 3 / 8 port size (with NPT 3 / 8 port) : Ordering No: L1492



- For safety instructions, please refer instruction manual IS - L1 - 02 - 01



AIR PREPARATION UNITS

FILTER REGULATOR COMBINATION Series FRC1

Cat No FRC1 - 02 - 01

FILTER REGULATOR COMBINATION 1/4 3/8 1/2

Features

- Modular type
- Suitable for panel 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 FRC14 and FRC15 for faster response.
 - Non raising ' Press to lock ' adjusting knob for locking at any set pressure.
- Steel bowl guard, bayonet type on FRC14 & FRC15 models and threaded type on FRC13 model.
- Good flow and regulating characteristics.

Technical Specification

Model	FRC 13	FRC 14	FRC 15
Medium	Compressed air		
Port size	NPT 1 / 4	NPT 3 / 8	NPT 1 / 2
Pressure gauge port size	NPT 1 / 8		
Flow rate in scfm (NI / min) @	19.4 (550)	63.6 (1800)	106 (3000)
Max Supply pressure in psi (bar)	140 (10)		
Regulating Pressure Range in psi (bar) #	2.9 – 28 (0.2 – 2), 2.9 – 57 (0.2 – 4), 7.25 – 100 (0.5 – 7), 7.25 - 140 (0.5 – 10) (Standard)		
Ambient / Medium temperature	41° – 120 ° F (5 ° – 50 ° C)		
Filtration in microns #	5, 25, 40 (standard), 50, 100		
Bowl capacity (at maximum condensate level)	0.30 ounce (9 ml)	1.08 ounce (32 ml)	1.48 ounce (44 ml)
Bowl material	Polycarbonate		
Installation	Vertical (as shown in the picture)		
Materials of construction	Aluminium, Bronze, Brass, Steel, Acetal, Polycarbonate, SS, Nitrile		
Weight in lb (Kg)	0.66 (0.30)	1.276 (0.58)	2.794 (1.27)
Optional accessories *	Clamp, Modular mounting kit, Pressure gauge		

@ Supply pressure 100 psi (7 bar) , Set pressure 85.3 psi (6 bar) , Pressure drop $\Delta p = 14.2$ psi (1bar) (For standard models)

For details see " How to order "

* For details refer optional accessories Cat No. APA - 02 - 01

Precautions

1. Note the direction of flow before installation and connect piping accordingly.
2. Flush pipings for dirt, dust, rust and other foreign particles.
3. Install in clean atmosphere.
4. Nipples with taper threads to be used with teflon tape. Ensure teflon tape does not enter the unit during tightening.
5. Polycarbonate bowls may get damaged and possibly fail if exposed to synthetic oils, thinner, solvents, trichloroethylene kerosene or other aromatic hydrocarbons.

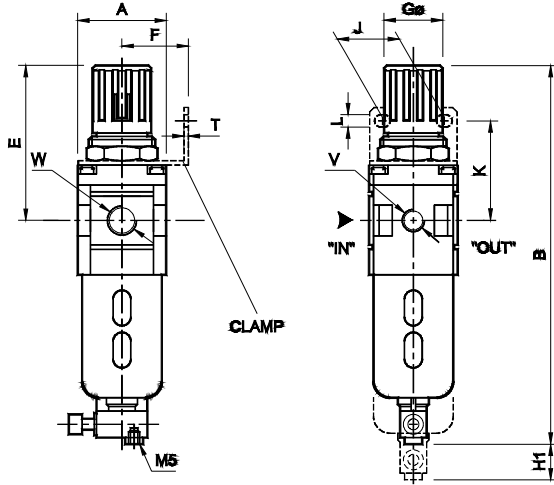
Pressure Setting

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)

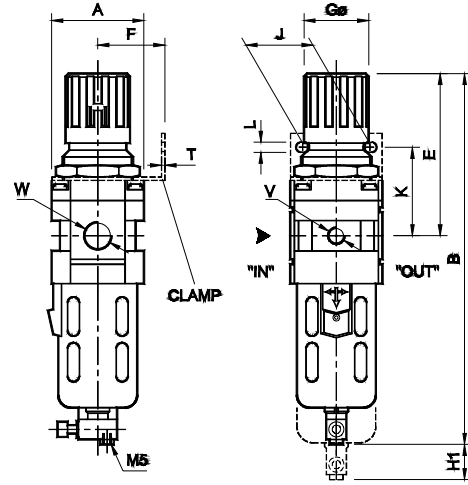
AIR PREPARATION UNITS
FILTER REGULATOR COMBINATION Series FRC1

Cat No FRC1 - 02 - 01

Model FRC 13



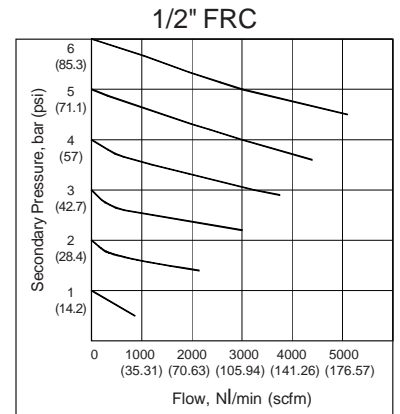
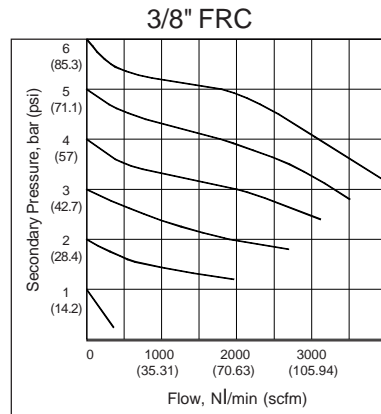
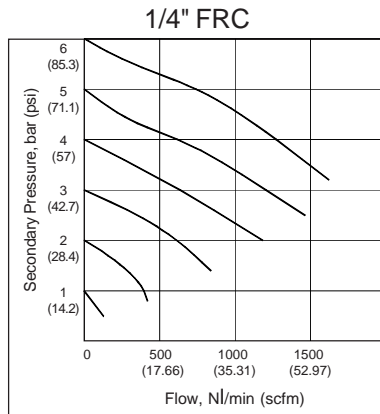
Model FRC 14 & FRC 15



For Details of Clamp see optional accessories Cat No: APA - 02 - 01

Model	W	V		A	B	E	F	K	GØ	J	L	T	H1
FRC 13	NPT 1/4	NPT 1/8	Inch (mm)	1.575 (40 [□])	6.69 (170)	2.677 (68)	1.181 (30)	1.772 (45)	1.102 (28)	1.102 (28)	0.216 (5.5)	0.079 (2)	1.968 (50)
FRC 14	NPT 3/8	NPT 1/8	Inch (mm)	2.165 (55 [□])	8.66 (220)	3.74 (95)	1.575 (40)	2.087 (53)	1.575 (40)	1.575 (40)	0.256 (6.5)	0.079 (2)	2.165 (55)
FRC 15	NPT 1/2	NPT 1/8	Inch (mm)	2.756 (70 [□])	11.02 (280)	4.921 (125)	1.968 (50)	2.441 (62)	2.008 (51)	2.165 (55)	0.335 (8.5)	0.079 (2)	3.15 (80)

Flow Graphs



How to order

FRC 1



Body & Port size

- 3 9 1 -- NPT 1 / 4
- 4 9 2 -- NPT 3 / 8
- 5 9 3 -- NPT 1 / 2



Filtration in microns

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



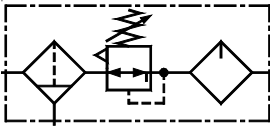
Pressure Range in psi (bar)

- 1 --- 2.9 - 28 (0.2 - 2)
- 2 --- 2.9 - 57 (0.2 - 4)
- 3 --- 7.25 - 100 (0.5 - 7)
- 4 --- 7.25 - 140 (0.5 - 10) (Standard)

Ordering example: Filter Regulator Combination - 3 / 8 size (with NPT 3 / 8 port) with 5 microns Filter and pressure range 7.25 - 100 psi: Ordering No: FRC 1492 1 3. If ordered as 3 / 8 " FRC our standard model FRC 1492 3 4, with 40 microns Filter and pressure range 7.25 - 140 psi will be supplied.



- For safety instructions, please refer instruction manual IS - FRC1 - 02 - 01



AIR PREPARATION UNITS

FRL MODULAR Series FRLM1

Cat No FRLM1 - 02 - 01

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

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 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.

Technical Specification

Model	FRLM 13	FRLM 14	FRLM 15
Medium	Compressed air		
Port size	NPT 1 / 4	NPT 3 / 8	NPT 1 / 2
Pressure gauge port size	NPT 1 / 8		
Flow rate in scfm (NI / min) @	17.7 (500)	70.6 (2000)	123.6 (3500)
Max Supply pressure in psi (bar)	140 (10)		
Regulating Pressure Range in psi (bar) #	2.9 – 28 (0.2 – 2), 2.9 – 57 (0.2 – 4), 7.25 – 100 (0.5 – 7), 7.25 - 140 (0.5 – 10) (Standard)		
Ambient / Medium temperature	41° – 120 ° F (5 ° – 50 ° C)		
Filtration in microns #	5, 25, 40 (standard), 50, 100		
Min operating flow in scfm (NI / min)	0.424 (12)	1.41 (40)	1.6 (45)
Bowl capacity Filter (at maximum condensate level)	0.30 ounce (9 ml)	1.08 ounce (32 ml)	1.48 ounce (44 ml)
Bowl capacity Lubricator (at maximum condensate level)	0.68 ounce (20 ml)	1.98 ounce (57 ml)	5.13 ounce (152 ml)
Recommended oil	ISO VG 32 (Servo System 32 / Mobil DTE Light)		
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 in lb (Kg)	1.584 (0.72)	3.036 (1.38)	5.83 (2.65)
Optional accessories *	Pressure gauge		

@ Supply pressure 100 psi (7 bar) , Set pressure 85.3 psi (6 bar) , Pressure drop $\Delta p = 14.2$ psi (1bar) (For standard models)

For details see " How to order "

* For details refer optional accessories Cat No. APA - 02 - 01

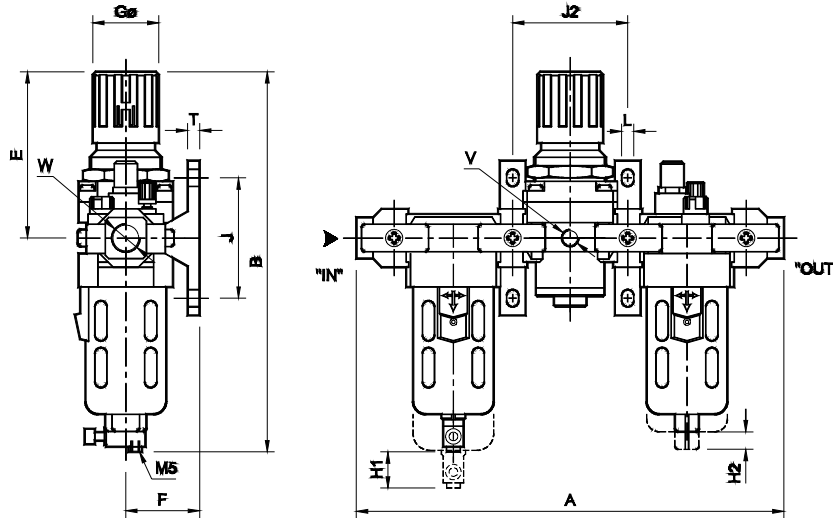
Pressure Setting

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

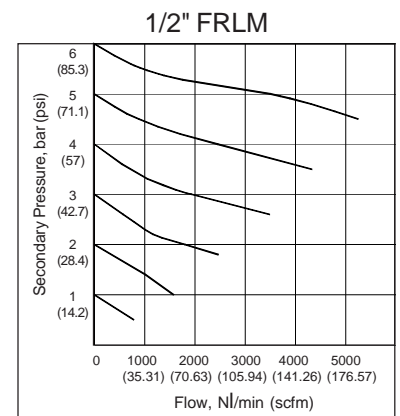
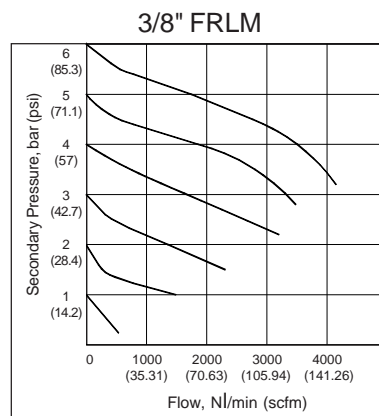
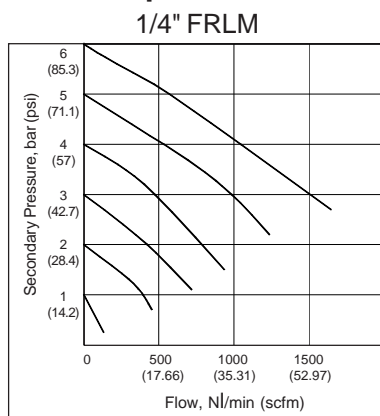
FRL MODULAR Series FRLM 1

Cat No FRLM1 - 02 - 01



Model	W	V		A	B	E	F	GØ	J	L	T	H1	H2	J2
FRLM 1 3	NPT 1/4	NPT 1/8	Inch (mm)	7.874 (200)	6.69 (170)	2.677 (68)	1.378 (35)	1.102 (28)	1.968 (50)	0.275 (7)	0.275 (7)	1.968 (50)	1.378 (35)	2.047 (52)
FRLM 1 4	NPT 3/8	NPT 1/8	Inch (mm)	9.842 (250)	8.66 (220)	3.74 (95)	1.772 (45)	1.575 (40)	2.756 (70)	0.275 (7)	0.275 (7)	2.165 (55)	1.772 (45)	2.716 (69)
FRLM 1 5	NPT 1/2	NPT 1/8	Inch (mm)	12.0 (305)	11.02 (280)	4.921 (125)	2.165 (55)	2.008 (51)	3.543 (90)	0.354 (9)	0.354 (9)	3.15 (80)	1.772 (45)	3.386 (86)

Flow Graphs



How to order

FRLM 1



Body & Port size

- 3 9 1 -- NPT 1 / 4
- 4 9 2 -- NPT 3 / 8
- 5 9 3 -- NPT 1 / 2



Filtration microns

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



Pressure Range in psi (bar)

- 1 --- 2.9 - 28 (0.2 - 2)
- 2 --- 2.9 - 57 (0.2 - 4)
- 3 --- 7.25 - 100 (0.5 - 7)
- 4 --- 7.25 - 140 (0.5 - 10) (Standard)

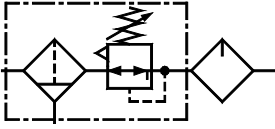
Ordering example: Filter Regulator Lubricator Modular- 3 / 8 size (with NPT 3 / 8 port size) with 5 microns Filter and pressure range 7.25 - 100 psi: Ordering No: FRLM 1492 1 3. If ordered as 3 / 8 " FRLM, our standard model FRLM 1492 3 4, with 40 microns Filter and pressure range 7.25 - 140 psi will be supplied.

Precautions

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



- For safety instructions, please refer instruction manual IS - FRLM1 - 02 - 01



AIR PREPARATION UNITS

FRCL MODULAR Series FRCLM1

Cat No FRCLM1 - 02 - 01

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

Individual Filter- Regulator combination & 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 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.

Technical Specification

Model	FRCLM 13	FRCLM 14	FRCLM 15
Medium	Compressed air		
Port size	NPT 1 / 4	NPT 3 / 8	NPT 1 / 2
Pressure gauge port size	NPT 1 / 8		
Flow rate in scfm (NI / min) @	17.66 (500)	44.14 (1250)	98.9 (2800)
Max Supply pressure in psi (bar)	140 (10)		
Regulating Pressure Range in psi (bar) #	2.9 – 28 (0.2 – 2), 2.9 – 57 (0.2 – 4), 7.25 – 100 (0.5 – 7), 7.25 - 140 (0.5 – 10) (Standard)		
Ambient / Medium temperature	41° – 120 ° F (5 ° – 50 ° C)		
Filtration in microns #	5, 25, 40 (standard), 50, 100		
Min operating flow in scfm (NI / min)	0.424 (12)	1.41 (40)	1.6 (45)
Bowl capacity Filter (at maximum condensate level)	0.30 ounce (9 ml)	1.08 ounce (32 ml)	1.48 ounce (44 ml)
Bowl capacity Lubricator (at maximum condensate level)	0.68 ounce (20 ml)	1.98 ounce (57 ml)	5.13 ounce (152 ml)
Recommended oil	ISO VG 32 (Servo System 32 / Mobil DTE Light)		
Bowl material	Polycarbonate		
Installation	Vertical (as shown in the picture)		
Materials of construction	Aluminium, Bronze, Brass, Steel, Acetal, Polycarbonate, SS, Nitrile		
Weight in lb (Kg)	1.386 (0.63)	2.53 (1.15)	4.994 (2.27)
Optional accessories *	Pressure gauge		

@ Supply pressure 100 psi (7 bar) , Set pressure 85.3 psi (6 bar) , Pressure drop $\Delta p = 14.2$ psi (1bar) (For standard models)

For details see " How to order "

* For details refer optional accessories Cat No. APA - 02 - 01

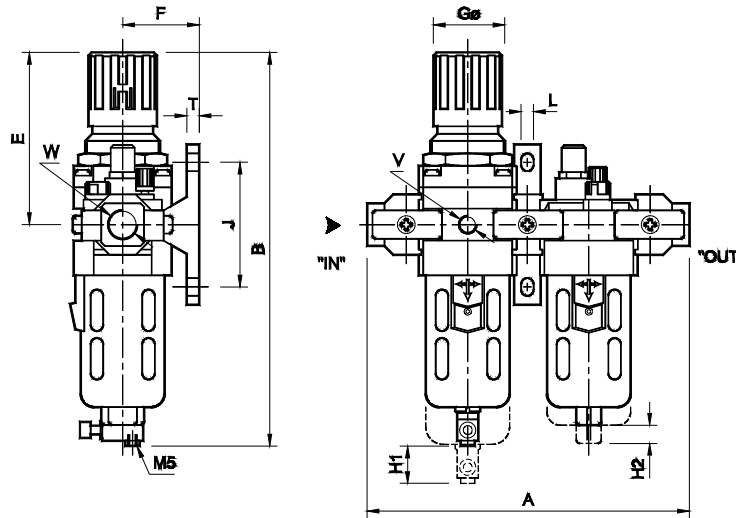
Pressure Setting

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

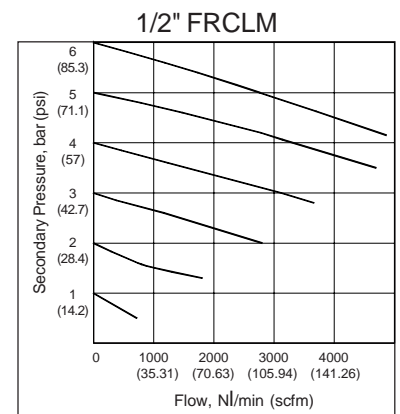
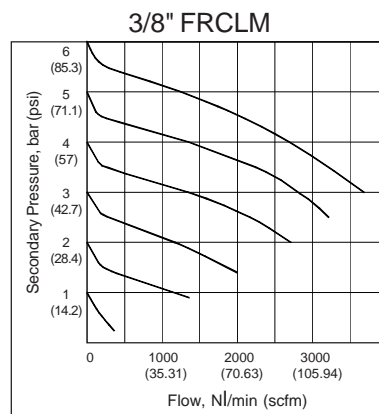
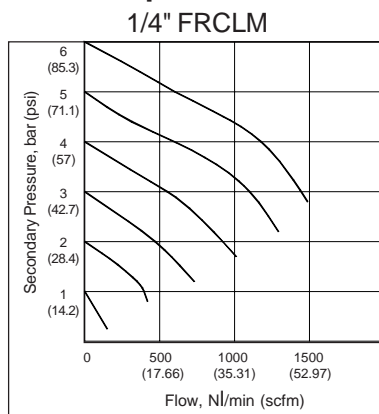
FRCL MODULAR Series FRCLM1

Cat No FRCLM1 - 02 - 01



Model	W	V		A	B	E	F	Gø	J	L	T	H1	H2
FRCLM 1 3	NPT 1/4	NPT 1/8	Inch (mm)	5.75 (146)	6.69 (170)	2.677 (68)	1.378 (35)	1.102 (28)	1.968 (50)	0.275 (7)	0.275 (7)	1.968 (50)	1.378 (35)
FRCLM 1 4	NPT 3/8	NPT 1/8	Inch (mm)	7.165 (182)	8.66 (220)	3.74 (95)	1.772 (45)	1.575 (40)	2.756 (70)	0.275 (7)	0.275 (7)	2.165 (55)	1.772 (45)
FRCLM 1 5	NPT 1/2	NPT 1/8	Inch (mm)	8.66 (220)	11.02 (280)	4.921 (125)	2.165 (55)	2.008 (51)	3.543 (90)	0.354 (9)	0.354 (9)	3.15 (80)	1.772 (45)

Flow Graphs



How To Order

FRCLM 1



Body & Port size

3 9 1 -- NPT 1 / 4
4 9 2 -- NPT 3 / 8
5 9 3 -- NPT 1 / 2



Filtration microns

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



Pressure Range in psi (bar)

1 --- 2.9 - 28 (0.2 - 2)
2 --- 2.9 - 57 (0.2 - 4)
3 --- 7.25 - 100 (0.5 - 7)
4 --- 7.25 - 140 (0.5 - 10) (Standard)

Ordering example : Filter Regulator Combination and Lubricator Modular - 3 / 8 size (with NPT 3 / 8 port) with 5 microns Filter and pressure range 7.25 - 100 psi : Ordering No: FRCLM 1492 1 3. If ordered as 3 / 8 " FRCLM, our standard model FRCLM 1492 3 4, with 40 microns Filter and pressure range 7.25 - 140 psi 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 to be used with teflon tape. Ensure teflon tape doesnot enter the unit during tightening.
- Polycarbonate bowls may get damaged and possibly fail if exposed to synthetic oils, thinner, solvents, trichloroethylene, kerosene or other aromatic hydrocarbons.



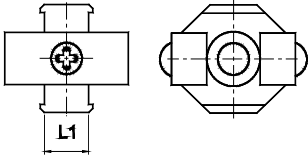
- For safety instructions, please refer instruction manual IS - FRCLM1 - 02 - 01

AIR PREPARATION UNITS - ACCESSORIES

Accessories - for Modular construction

Cat No APA - 02 - 01

SPACER

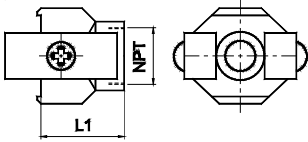


Model no	Adaptable to Model		L1
A2S01	F13, L13, R13, FRC 13	inch	0.472
		mm	12
A2S02	F14, R14, L14, FRC14	inch	0.551
		mm	14
A2S03	F15, R15, L15, FRC15	inch	0.63
		mm	16

How to order :- Mention the Model number required

Example:- Spacer for 3/8 Filter, Series F14: Ordering no: A 2 S 0 2

PIPING ADAPTOR

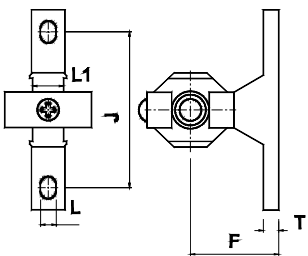


Model no	Adaptable to Model	NPT		L1
A2P04	F13, L13, R13, FRC 13	1/4	inch	1.063
			mm	27
A2P05	F14, R14, L14, FRC14	3/8	inch	1.142
			mm	29
A2P06	F15, R15, L15, FRC15	1/2	inch	1.26
			mm	32

How to order :- Mention the Model number required

Example:- Piping Adaptor for 3/8 Filter, Series F14: Ordering no: A 2 P 0 5

WALL MOUNTING BRACKET



Model no	Adaptable to Model		L1	J	L	F	T
A2W01	F13, L13, R13, FRC 13	inch	0.472	1.968	0.275	1.378	0.275
		mm	12	50	7	35	7
A2W02	F14, L14, R14, FRC14	inch	0.551	2.756	0.275	1.772	0.275
		mm	14	70	7	45	7
A2W03	F15, L15, R15, FRC15	inch	0.63	3.543	0.354	2.165	0.354
		mm	16	90	9	55	9

How to order:- Mention the Model number required

Example:- Wall mounting Bracket for 3/8 Filter, Series F14: Ordering no: A 2 W 0 2

KIT FOR MODULAR CONSTRUCTION

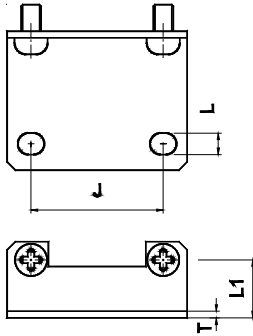
For Modular construction , order accessories as given below

	Wall mounting bracket	Piping adaptor
FRCLM	1	2
FRLM	2	2

AIR PREPARATION UNITS - ACCESSORIES
Accessories - CLAMPS

Cat No APA - 02 - 01

CLAMP for FILTER , LUBRICATOR

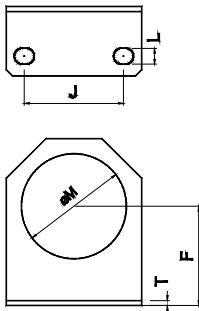


Model no	Adaptable to Model		J	L	L1	T
A2C31	F13, L13	inch	1.102	0.216	0.551	0.079
		mm	28	5.5	14	2
A2C32	F14, L14	inch	1.575	0.256	0.69	0.079
		mm	40	6.5	17.5	2
A2C33	F15, L15	inch	2.165	0.335	0.87	0.079
		mm	55	8.5	22	2

How to order:- Mention the Model number required

Example:- Clamp for 3/8 Filter, Series F14: Ordering no: A 2 C 3 2

CLAMP for REGULATOR



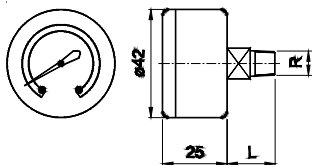
Model no	Adaptable to Model		ØM	F	L	J	T
A2C01	R13, FRC13	inch	1.2	1.181	0.216	1.102	0.079
		mm	30.5	30	5.5	28	2
A2C02	R14, FRC14	inch	1.673	1.575	0.256	1.575	0.079
		mm	42.5	40	6.5	40	2
A2C03	R15, FRC15	inch	2.067	1.968	0.335	2.165	0.079
		mm	52.5	50	8.5	55	2

How to order:- Mention the Model number required

Example:- Clamp for 3/8 Regulator, Series R14: Ordering no: A 2 C 0 2

Accessories - PRESSURE GAUGE

PRESSURE GAUGE



R	Pr. range in psi	Model no	Adaptable to Model	L in (mm)
NPT 1/8	0 - 57 (0 - 4)	A2G04	R13, R14, R15, FRC13, FRC14, FRC15	0.75 (19)
	0 - 140 (0 - 10)	A2G05		
	0 - 232 (0 - 16)	A2G06		

How to order:- Mention the Model number required

Example:- Pressure Gauge for Regulator with Pressure range 0 - 140 psi: Ordering no: A 2 G 0 5

Manufactured by

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Subject to change

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