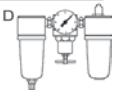
MONNIER
INCORPORATED



Air Preparation Products

Monnier Custom Engineered

Monnier products are designed for use with industrial compressed air. For any other application, please consult the factory. Do not use these products where pressure and temperatures can exceed those specified.

Monnier products have always been machined from aluminum bar stock making them porosity free, stronger and lighter than their zinc die-cast counterparts. These units may be anodized in your choice of eight bright colors - blue, black, clear, green, red, yellow, gold and purple. Anodizing adds a measure of corrosion resistance and makes system or subsystem identification easier through color coding.

We offer excellent delivery - 48 hours for many standard items and if your distributor is temporarily out of stock, he can arrange to have it drop shipped from the factory to you.

Whether your application calls for a standard off-the-shelf filter, regulator, or lubricator or if it requires a specially engineered solution, we have the right product for you. At Monnier, we take great pride in being known as the company *"where custom solutions become standard."*

Special Mounting

Requirement: A small regulator to control the air and oil flow of an oil-fired furnace using waste oil.

Solution: Two identical miniature low-pressure regulators on small manifolds controlling the air and oil separately

High Pressure Regulator

Requirement: Needed on a portable CO2 bottle used for a unit that lifts medical patients.

Solution: The machined regulator handles supply pressure to 1000 PSIG and is equipped with an oversized adjustment knob for ease of adjustment.

Special Porting

Requirement: To reduce and simplify complex piping.

Solution: This filter housing has one 3/8" inlet and three 1/8" outlets. This greatly reduced the complex piping p[reviously used.

Medical Application

Requirement: Gentle pressure is required for use on air splints. The splint operates at an adjusted pressure between 1-3 PSIG. In addition, noise must be at a minimum.

Solution: Monnier engineered a special relief valve with special porting which enables direct mounting to a second relife valve. A stacked diaphragm keeps noise to a minimum

Precision Regulator

Requirement: A regulator activated by a slide cam which operates with high cycle times to dispense ice cream.

Solution: The flow of ice cream can be precisely controlled due to the accuracy and response of this custom regulator.

Solutions

ENP and Anodizing

Requirement: Car washes, food processing, and oil field control panel equipment are just a few of the situations that require ENP or anodized units.

Solution: Monnier's use of high grade aluminum bar stock for machined components allows the application of many special finishes.

Rugged and Environmentally Tough

Requirement: The rail car industry needed a filter housing for use on bottom-discharge coal cars that could withstand tough environmental conditions.

Solution: Monnier's filter housings are made from solid bar stock and can stand up to the vibration and demanding conditions of being mounted on a coal car.

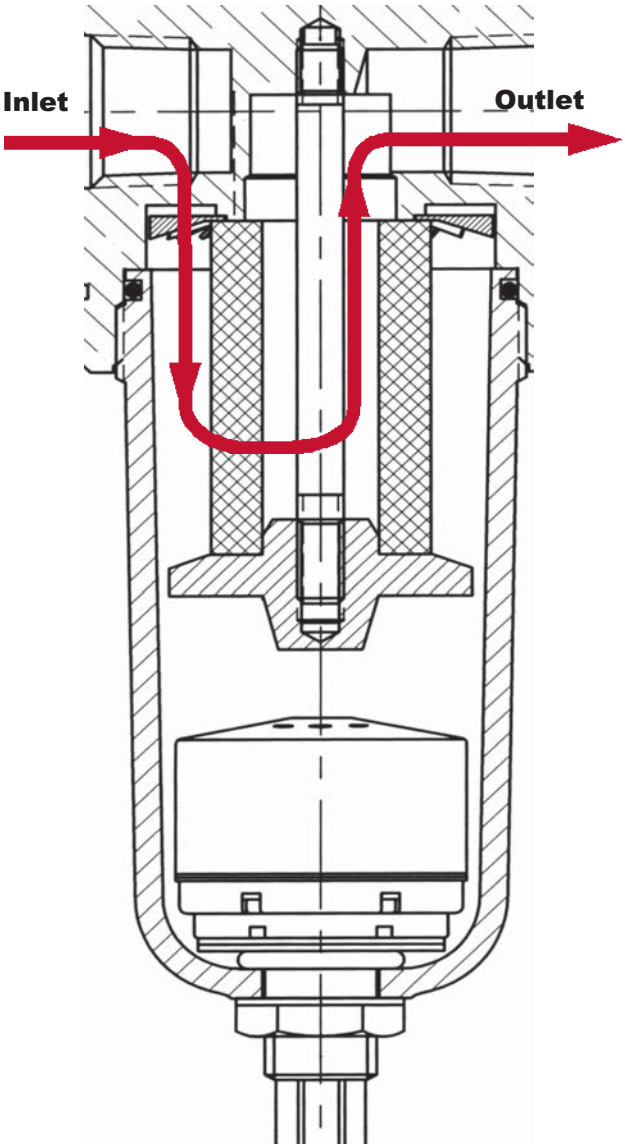
Custom Valve

Requirement: A special media valve which was air pilot actuated with an integrated "OR" logic gate.

Solution: A valve with a shuttle pilot control and a durable high flow main stage was designed for this unique application. Monnier's manufacturing expertise extends to machining special control valves for full integration of multiple circuit components.

Contents

Air Line Filters



Monnier air line filters are built to ensure solid and liquid contaminants are removed from compressed air. All Monnier filters are engineered with the exclusive Whirl-Away design which creates high centrifugal force with low pressure drop. The whirling action forces all liquids and solids against the bowl wall causing them to run down below the quiet-zone baffle where they can be drained out. The air then flows through the element where the smaller particles are removed and the filtered air passes downstream. The leak proof drain valve has an o-ring seal that can be opened and closed without tools.

On metal bowl units, polycarbonate sight levels are standard; however, trogamid is available for environments or fluids harmful to polycarbonate. In addition, Viton seals are available for situations where Buna-N is not acceptable.

MAXIMUM PRESSURE

Pressure in polycarbonate bowls:	150 psi
Pressure in metal bowls:	250 psi

MAXIMUM TEMPERATURE

Temperature in polycarbonate bowls:	120°F
Temperature in metal bowls:	200°F

CAUTION

Bowl guards are recommended on all polycarbonate bowl filters! All bowl guards are made of heavy-duty stainless steel.

WARNING

Polycarbonate bowls can be damaged and may fail if they are exposed to or come in contact with solvents, strong alkalies, fire resistant and/or synthetic compressor lubricants.

DRAINS

Add Suffix “D” for impulse drain or Suffix “F” for float drain. The Miniature “3000” series is not available with float drains.

ELEMENTS

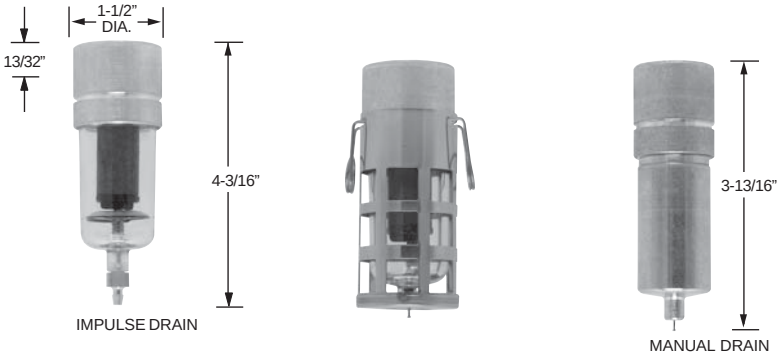
Filter elements with a 20-micron rating are standard in all units. Check individual filter charts for additional options.

ANODIZING

These units may be anodized in your choice of eight bright colors - blue, black, clear, green, red, yellow, gold and purple

MINIATURE FILTERS

1-Ounce Capacity
Polycarbonate or Metal Bowl
Pipe Size: 1/8" or 1/4"



PIPE SIZE	MODEL NUMBER
POLYCARBONATE BOWL	
With Bowl Guard (23581)	
1/8"	204-3100-1
1/4"	204-3100-2
Without Bowl Guard	
1/8"	204-3000-1
1/4"	204-3000-2
METAL BOWL	
1/8"	204-3200-1
1/4"	204-3200-2

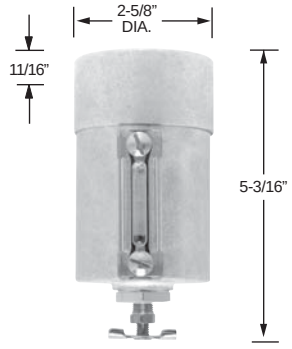
ELEMENTS
3 Micron - #23024 (3002)
10 Micron - #23025 (3001)
20 Micron - #23004 (3000)

COMPACT FILTERS

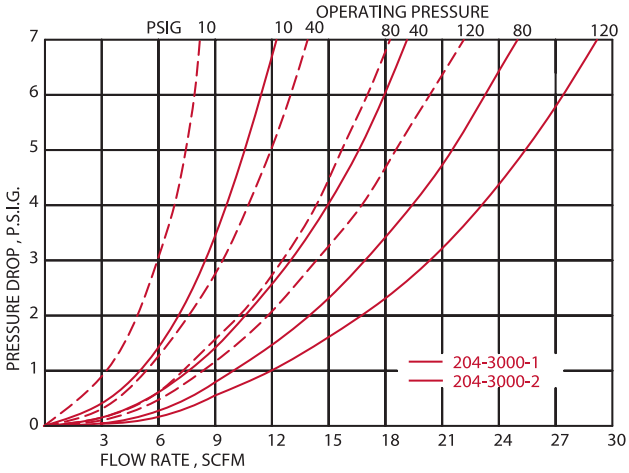
5-Ounce Capacity
Polycarbonate or Metal Bowl
Pipe Size 1/4", 3/8", 1/2"

PIPE SIZE	MODEL NUMBER
POLYCARBONATE BOWL	
With Bowl Guard (22089)	
1/4"	204-2100-2
3/8"	204-2100-3
1/2"	204-2100-4
Without Bowl Guard	
1/4"	204-2000-2
3/8"	204-2000-3
1/2"	204-2000-4
METAL BOWL	
With Sight Level (21538)	
1/4"	204-2300-2
3/8"	204-2300-3
1/2"	204-2300-4
Without Sight Level	
1/4"	204-2200-2
3/8"	204-2200-3
1/2"	204-2200-4

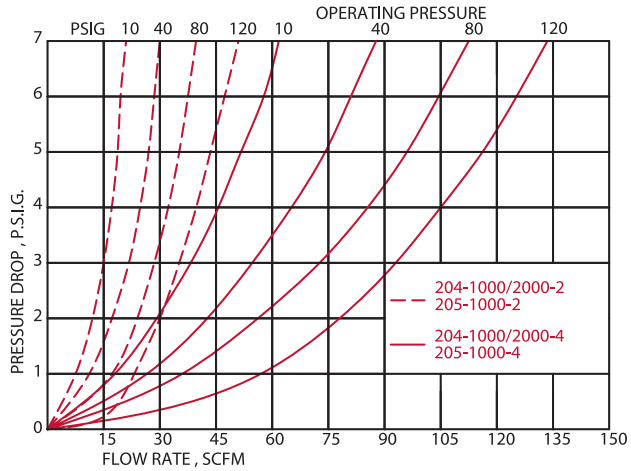
ELEMENTS
3 Micron - #22032 (2002)
10 Micron - #22033 (2001)
20 Micron - #22205 (2000 STD)



FLOW CHARACTERISTICS / 204-3000

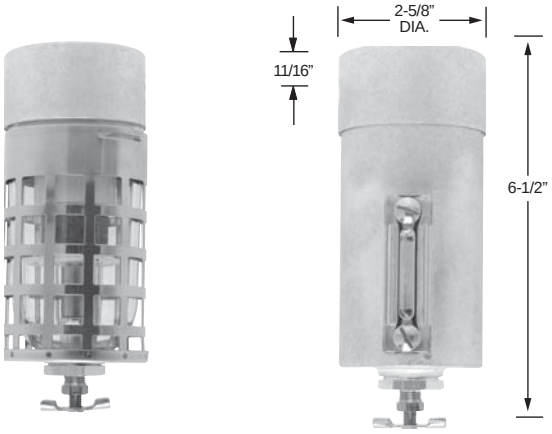


FLOW CHARACTERISTICS / 204-2000



STANDARD FILTERS

8-Ounce Capacity
Polycarbonate or Metal Bowl
Pipe Size: 1/4", 3/8", 1/2"

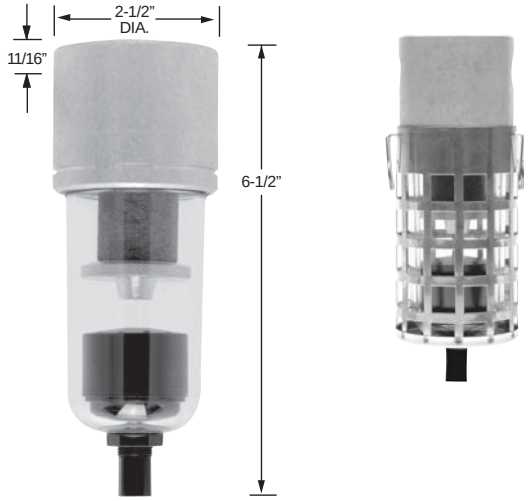


PIPE SIZE	MODEL NUMBER
POLYCARBONATE BOWL	
With Bowl Guard (21088)	
1/4"	204-1100-2
3/8"	204-1100-3
1/2"	204-1100-4
Without Bowl Guard	
1/4"	204-1000-2
3/8"	204-1000-3
1/2"	204-1000-4
METAL BOWL	
With Sight Level (21538)	
1/4"	204-1300-2
3/8"	204-1300-3
1/2"	204-1300-4
Without Sight Level	
1/4"	204-1200-2
3/8"	204-1200-3
1/2"	204-1200-4

STANDARD FILTERS

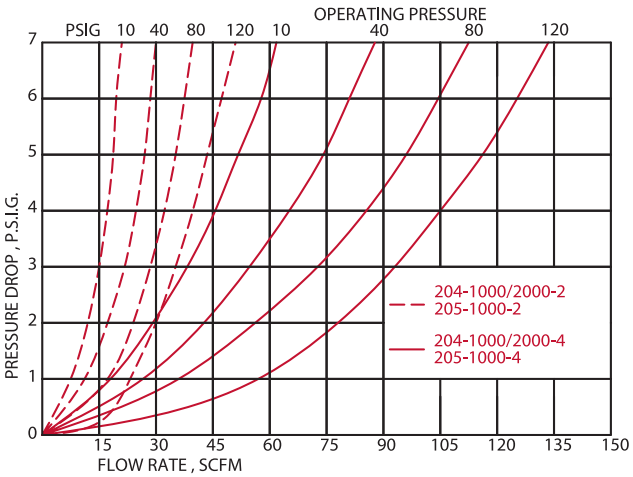
WITH THREADED BOWLS

8-Ounce Capacity
Polycarbonate or Metal Bowl
Pipe Size: 1/4", 3/8", 1/2"



PIPE SIZE	MODEL NUMBER
POLYCARBONATE BOWL	
With Bowl Guard (21088)	
1/4"	205-1100-2
3/8"	205-1100-3
1/2"	205-1100-4
Without Bowl Guard	
1/4"	205-1000-2
3/8"	205-1000-3
1/2"	205-1000-4
METAL BOWL	
With Sight Level(21538)	
1/4"	205-1300-2
3/8"	205-1300-3
1/2"	205-1300-4
Without Sight Level	
1/4"	205-1200-2
3/8"	205-1200-3
1/2"	205-1200-4

FLOW CHARACTERISTICS / 204-1000 & 205-1000

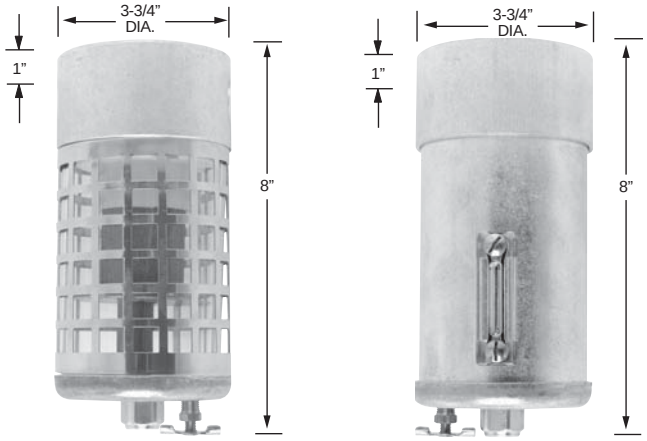


ELEMENTS FOR 204-1000 & 205-1000

3 Micron - #21037 (1002)
10 Micron - #21036 (1001)
20 Micron - #21205 (1000 - STD)

STANDARD FILTERS

21-Ounce Capacity
Polycarbonate or Metal Bowl
Pipe Size: 3/4" or 1"

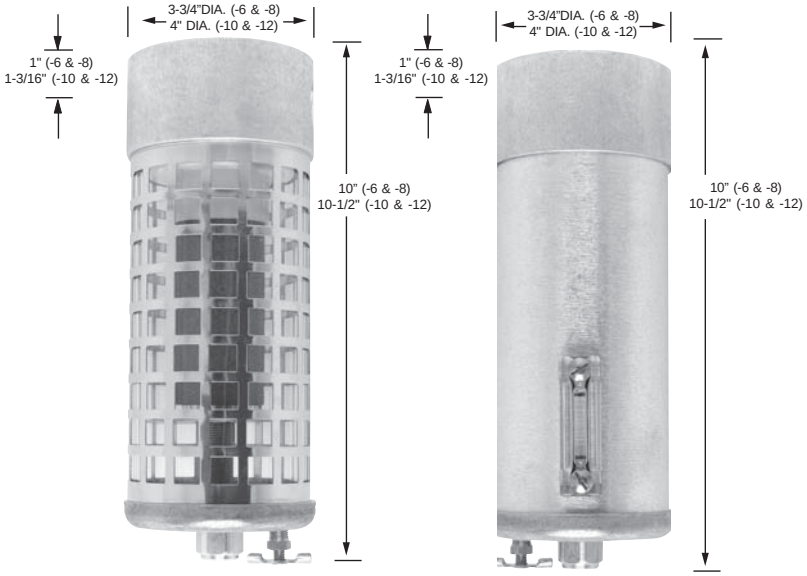


PIPE SIZE	MODEL NUMBER
POLYCARBONATE BOWL	
With Bowl Guard (25057)	
3/4"	201-5100-6
1"	201-5100-8
Without Bowl Guard	
3/4"	201-5000-6
1"	201-5000-8
METAL BOWL	
With Sight Level (21538)	
3/4"	201-5300-6
1"	201-5300-8
Without Sight Level	
3/4"	201-5200-6
1"	201-5200-8

ELEMENTS
3 Micron - #25028 (5002)
10 Micron - #25029 (5001)
20 Micron - #25039 (5000 STD)

HEAVY DUTY FILTERS

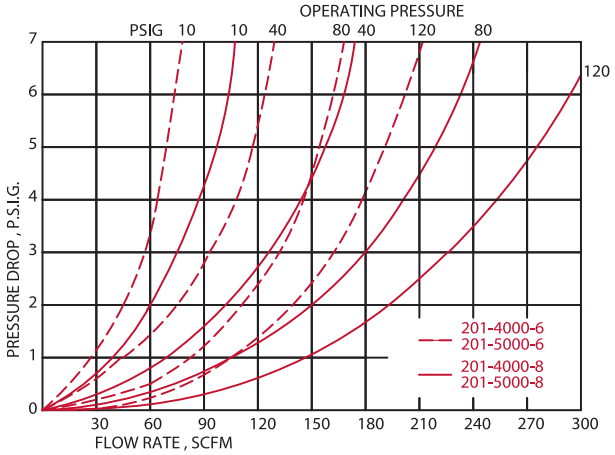
32-Ounce Capacity
Polycarbonate or Metal Bowl
Pipe Size: 3/4", 1", 1-1/4" or 1-1/2"



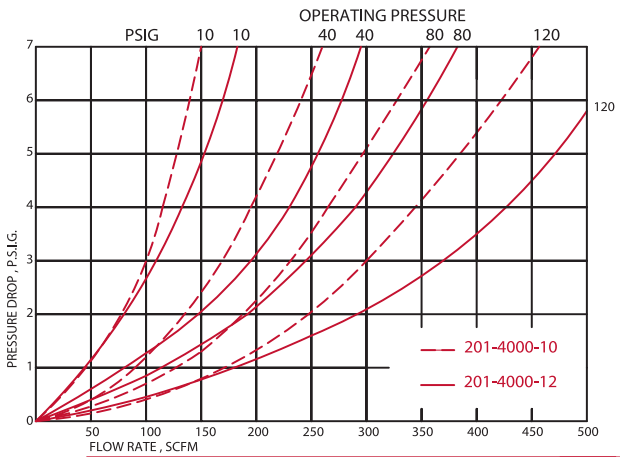
PIPE SIZE	MODEL NUMBER
POLYCARBONATE BOWL	
With Bowl Guard (24023)	
3/4"	201-4100-6
1"	201-4100-8
1-1/4"	201-4100-10
1-1/2"	201-4100-12
Without Bowl Guard	
3/4"	201-4000-6
1"	201-4000-8
1-1/4"	201-4000-10
1-1/2"	201-4000-12
METAL BOWL	
With Sight Level (21538)	
3/4"	201-4300-6
1"	201-4300-8
1-1/4"	201-4300-10
1-1/2"	201-4300-12
Without Sight Level	
3/4"	201-4200-6
1"	201-4200-8
1-1/4"	201-4200-10
1-1/2"	201-4200-12

ELEMENTS
3 Micron - #24013 (4002)
20 Micron - #24015 (4000 STD)
100 Micron - #24087 (4003)

FLOW CHARACTERISTICS / 201-4000/5000-6/8



FLOW CHARACTERISTICS / 201-4000-10/12



OIL-BARRIER AIR LINE FILTERS

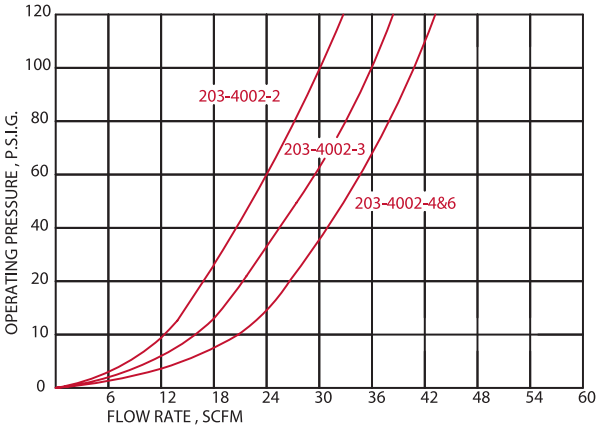
32-Ounce Capacity
Polycarbonate or Metal Bowl
Pipe Size: 1/4", 3/8", 1/2" or 3/4"

PIPE SIZE	MODEL NUMBER
POLYCARBONATE BOWL WITH BOWL GUARD (24023)	
1/4"	203-4102-2
3/8"	203-4102-3
1/2"	203-4102-4
3/4"	203-4102-6
POLYCARBONATE BOWL WITHOUT BOWL GUARD	
1/4"	203-4002-2
3/8"	203-4002-3
1/2"	203-4002-4
3/4"	203-4002-6
METAL BOWL WITH SIGHT LEVEL (21538)	
1/4"	203-4302-2
3/8"	203-4302-3
1/2"	203-4302-4
3/4"	203-4302-6
WITHOUT SIGHT LEVEL	
1/4"	203-4202-2
3/8"	203-4202-3
1/2"	203-4202-4
3/4"	203-4202-6

The Monnier Oil-Barrier Filter is a low-cost unit which offers thoroughly satisfactory performance in applications where oil droplets of sub-micron size are not harmful. The 3-micron filter element is (part #24,020) of the saturable (not oil-coalescing) type, with a filtering surface 200 times the normal pipe area.

This filter provides an economical method for delivering virtually oil-free air to instruments and air-gauging, paint-spraying, and dry pneumatic cylinder and valve applications.

FLOW CHARACTERISTICS / 203-4002



PNEUMATIC AIR/OIL RESERVOIR

12-, 20- & 45 Cubic Inch Capacity
Polycarbonate Metal Bowl

Designed for use in pneumatic circuits where air is used for power and oil for precision control of cylinder movement, the Monnier Pneumatic Air/Oil Reservoir is utilized to supply make-up oil in shock-absorber circuits. The unit has a 1/4" NPT air inlet at the top, and a 3/8" NPT oil outlet at the bottom. A filler hole, maximum oil level indicator, and a baffle to prevent aeration are provided.

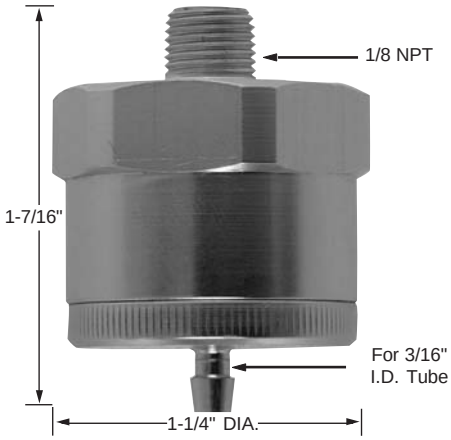
Two types of mounting brackets are available to support these units. They are described on page 19 and must be ordered separately. These reservoirs come drilled and tapped to accommodate the use of either bracket type.

Capacity Cu. In.	Capacity Ounces	POLYCARBONATE BOWL With Bowl Guard	POLYCARBONATE BOWL Without Bowl Guard	Mounting Brackets		Replacement Bowl Guard
12	6.65	2-1100	2-1000	11520	(Brkt. w/Stud)	21055
20	11.08	2-1120	2-1020	11038	(Angle Brkt.)	
45	24.93	2-1850	2-1750	11520	(Brkt. w/Stud)	24023
				15037	(Angle Brkt.)	
		METAL BOWL With Sight Level	**METAL BOWL Without Sight Level**			
12	6.65	2-1300	2-1200	11520	(Brkt. w/Stud)	
20	11.08	2-1320	2-1220	11038	(Angle Brkt.)	
45	24.93	2-1951	2-1950	11520	(Brkt. w/Stud)	
				15037	(Angle Brkt.)	

MONNIER

Air Line Filter Accessories

IMPULSE DRAIN



Model 20-101

Converts most present air line filters (regardless of make) to automatic drain. (Clear anodized finish standard)

The Monnier Impulse Drain has only one moving part—no floats, levers or pilot mechanisms. Repeated actuation of the unit prevents gum and corrosion build-up which often causes failure in automatic drains. It is so inexpensive that most users consider it a throw-away item. Replacement takes less than a minute.

The Monnier Impulse Drain is actuated by a decay in pressure of 10 percent, such as caused by intermittent cycling of valves, tools, or compressor starting and stopping. When system pressure decays to 0 psi, the spring activates the drain.

PRESSURE DROP INDICATORS

The Monnier Pressure Drop indicator is also available as a separate device to be installed across existing filters or similar equipment for visual indication of pressure drop.

The detached indicator is 1-3/4" diameter by 2-7/16" high overall. Ports are 1/8" NPT. Each indicator is furnished with two 1/8" straight and two 1/4" NPT right angle pipe-thread-to tube fittings plus one 12" length 1/8" i.d. plastic tubing. **Order part #21540.**

AUTOMATIC FLOAT DRAIN

MODELS 20-401 AND 20-404

(Clear anodized finish standard)

Attaches to bottom of drain legs (or any vertical air line) to remove accumulated moisture automatically. Can also be attached to filters having manual drain ports.

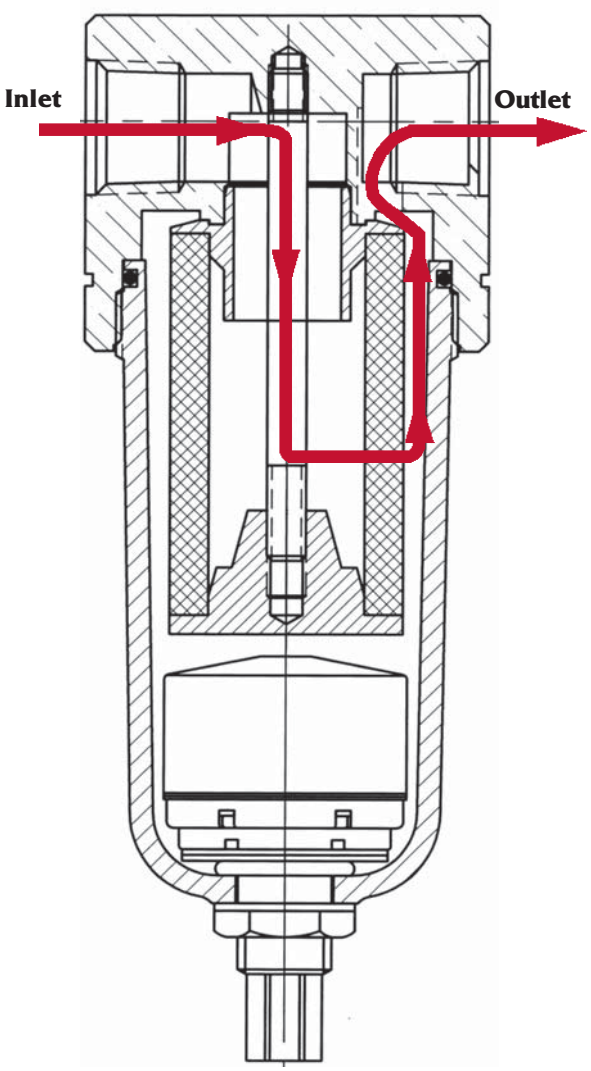
The Monnier Automatic Float-Actuated Drain is used to drain air line drain legs and air filters. It is a normally open, pilot operated valve, rated for 10 to 250 psi and 175°F. The valve is held closed by line pressure. The pilot valve is never submerged in water, and its discharge is operated by system air pressure, producing a strong on-off action. The float, which is extremely light, can't leak or hold fluid. All parts are corrosion proof.

The unit has a manual override to check proper functioning. Discharge is easily piped to remote locations. When the compressed air system is shut down, the valve returns to its normally open condition and water will drain by gravity.

Model No.	Size (NPTF) Inlet	Outlet	Inlet Nipple (NPT)
20-401	1/4	1/8	1/4 x 1/4 & 1/4 x 1/8
20-404	1/2	1/8	N/A

MONNIER

Air Line
Oil Coalescing Filters



DRY SERVICE

APPLICATION

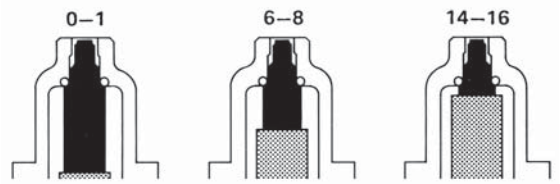
Monnier Oil-Coalescing Filters remove more than 99.95% of all oil and dirt from the air you use. Oil vapors and aerosols are removed by coalescent action, forming them into drops heavy enough to be separated by gravity. Unlike absorption filters, they do not become filled with oil, and will not clog on oil alone. If dirt particles are removed upstream, these filters will separate oil from air indefinitely.

FUNCTION

Oil-Coalescing filters work properly only when air velocity through them is within design limits. As a result, oil coalescing filter housings are larger than those of standard air filters for the same air flow. Use the flow chart below to select a model that will handle the maximum anticipated flow rate.

PRESSURE DROP INDICATORS

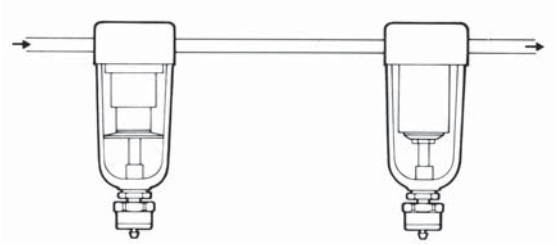
To order Coalescing Filters with a pressure drop indicator, change the sixth digit of the model number to an "8".



The pressure drop indicator is highly visable and designed so that the relative amount of pressure drop is easily determined from the height of the yellow column. See page 8 for ordering information.

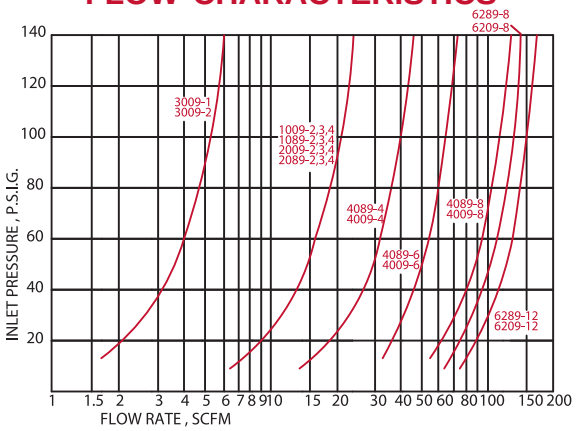
Standard
3-Micron Filter
(such as Model #
204-1002-2D)

Oil-Coalescing
0.3-Micron Filter
(such as Model #
204-1009-2D)



For the cleanest air possible and least maintenance cost, we recommend a standard 3-Micron Filter be installed directly upstream of an Oil-Coalescing Filter.

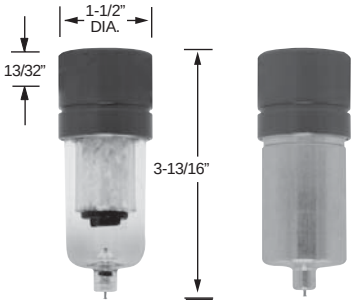
FLOW CHARACTERISTICS



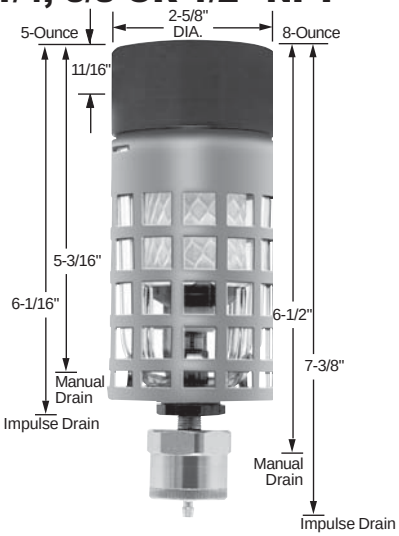
MAXIMUM RECOMMENDED FLOW RATES

Data represents flows through saturated elements at 2 psi pressure drop, the maximum permissible for proper oil-coalescing action.

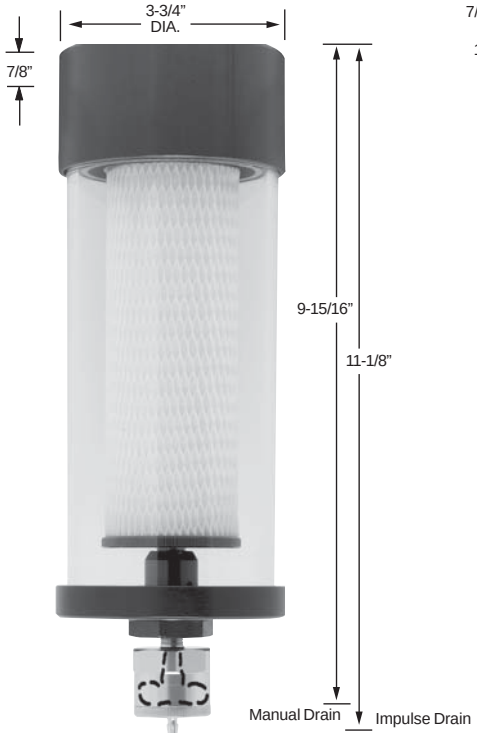
1-OUNCE CAPACITY
1/4” NPT



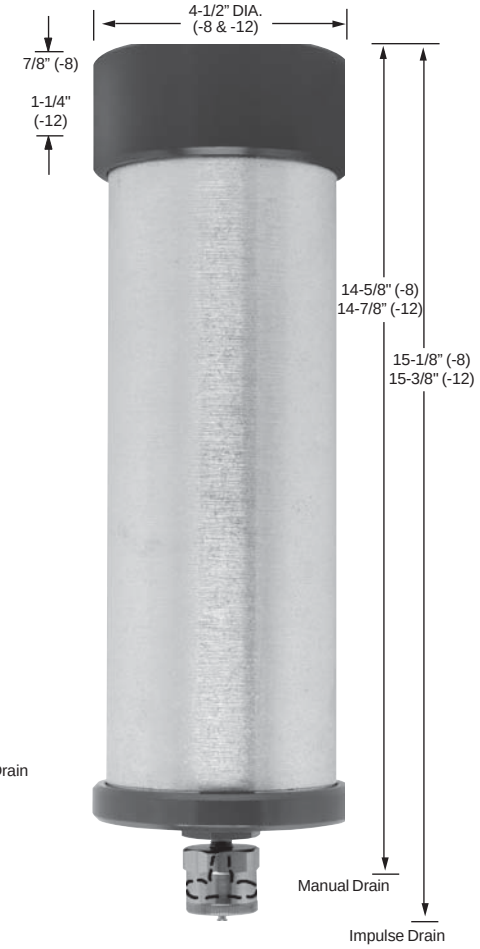
5 & 8 OUNCE CAPACITY
1/4, 3/8 OR 1/2” NPT



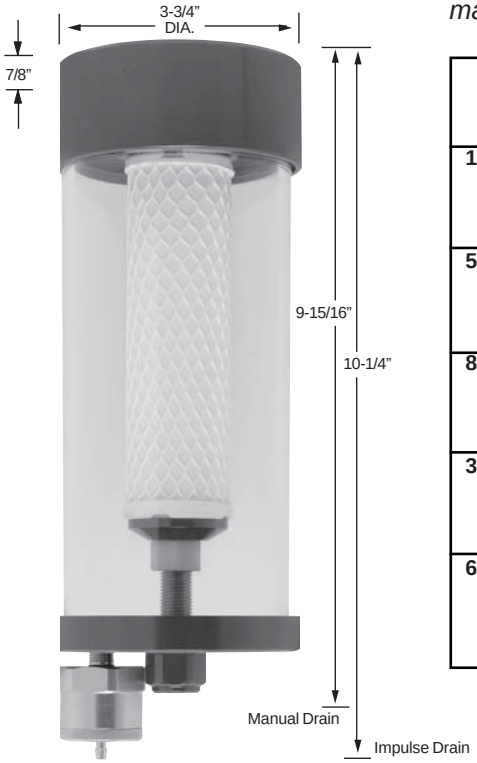
32-OUNCE CAPACITY
3/4 & 1” NPT



64-OUNCE CAPACITY
1 & 1-1/2” NPT



32-OUNCE CAPACITY
1/2” NPT

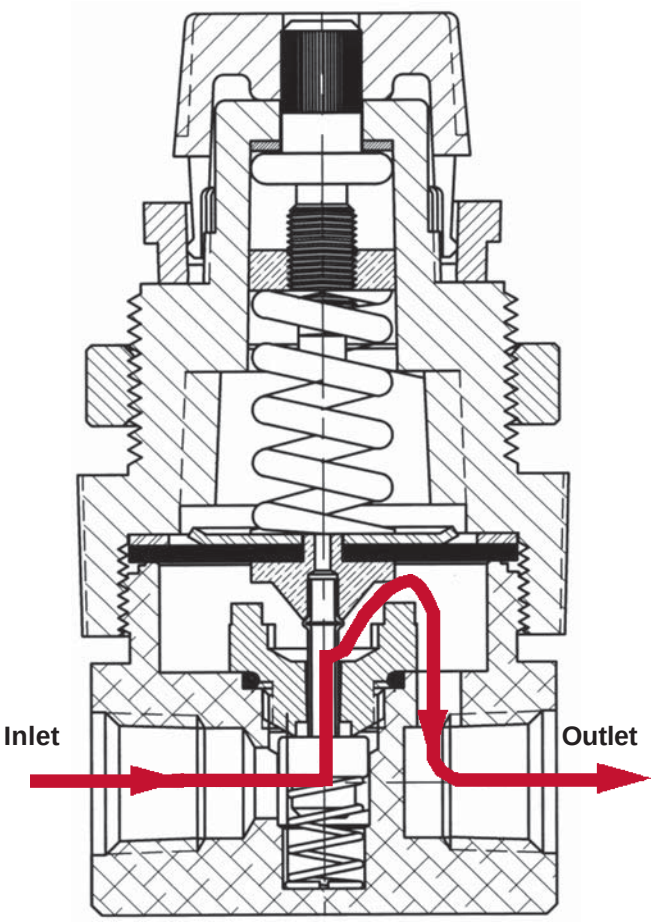


All aluminum parts are green anodized *as standard except metal bowls which may be ordered anodized at additional cost.*

FILTER SIZE	POLYCARBONATE BOWL WITH Bowl Guard	POLYCARBONATE BOWL WITHOUT Bowl Guard	METAL BOWL WITH Sight Level	METAL BOWL WITHOUT Sight Level	REPLACEMENT Bowl Guard	REPLACEMENT Element
1 oz						
1/8" NPT	204-3109-1	204-3009-1	N/A	204-3209-1	23581	23543
1/4" NPT	204-3109-2	204-3009-2		204-3209-2		
5 oz						
1/4" NPT	204-2109-2	204-2009-2	204-2309-2	204-2209-2	22089	21545
3/8" NPT	204-2109-3	204-2009-3	204-2309-3	204-2209-3		
1/2" NPT	204-2109-4	204-2009-4	204-2309-4	204-2209-4		
8 oz						
1/4" NPT	204-1109-2	204-1009-2	204-1309-2	204-1209-2	21088	21545
3/8" NPT	204-1109-3	204-1009-3	204-1309-3	204-1209-3		
1/2" NPT	204-1109-4	204-1009-4	204-1309-4	204-1209-4		
32 oz						
1/2" NPT	204-4109-4	204-4009-4	204-4309-4	204-4209-4	24023	24547
3/4" NPT	204-4109-6	204-4009-6	204-4309-6	204-4209-6	24023	24548
1" NPT	204-4109-8	204-4009-8	204-4309-8	204-4209-8	24023	24548
64 oz						
1" NPT	N/A	N/A	204-6309-8	204-6209-8	N/A	26550
1-1/2" NPT			204-6309-12	204-6209-12		

MONNIER

Integral Filters Regulators



With system pressure on, the regulator poppet valve assembly is in the closed position when the adjusting knob is turned fully counter clockwise (no spring load). By turning the adjusting knob clockwise, the diaphragm/piston moves downward allowing flow to come in through the orifice created between the poppet assembly and seat. The control diaphragm/piston offsetting the load spring senses pressure downstream. Increasing downstream pressure causes the poppet assembly to move upward until the load of the spring and diaphragm/piston are balanced. The outlet pressure has now been reduced. If a valve is opened downstream, the increased demand for pressure creates a reduced pressure under the control diaphragm/piston. The poppet assembly moves downward due to the load of the control spring opening the seat area and air is allowed to meet the downstream pressure demand. Thus, the area of the opening meters the downstream flow.

Monnier designs a wide variety of fluid-air regulators to provide a constant air line pressure. Standard line regulators are suitable for optimal pressure ranges from 0-10 psi to 20-250 psi and come in 1/8" to 1-1/2" pipe sizes. When space is at a premium, try our subminiature regulators specifically designed for low-volume air flow and dead-end service.

MAXIMUM PRIMARY PRESSURE: 250 PSI
OPERATING TEMPERATURE RANGE: 0-175^{0}F

- All standard regulators are relieving but may also be ordered as non-relieving. An even number in the seventh position is relieving; an odd number is non-relieving.
- To order with gauge, add suffix "G".
- To order regulators with an adjustable knob, add suffix "K".
- To order miniature (3000 series) regulators without gauge ports, change the "0" after the "3" to "1". (3100)
- All miniature regulators are available with 10-32 ports.
- All regulators will adjust to zero psi (shutoff) and to pressure above the range shown.
- Regulators can be preset at required secondary pressures and/or offered with a tamper proof option.
- Gauge port plugs are included with all regulators.
- Viton seals are available for situations where Buna-N is not acceptable.

ANODIZING

These units may be anodized in your choice of eight bright colors - blue, black, clear, green, red, yellow, gold and purple

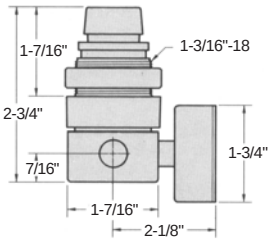
MINIATURE REGULATORS

POLYCARBONATE BONNET

PIPE SIZE: 1/8” OR 1/4”

WITH ADJUSTMENT LOCK RING
101-3000 SERIES

OPTIMUM PRESSURE RANGE	PIPE SIZE	RELIEVING	NON-RELIEVING	GAUGE RANGE
10-130 PSI	1/8"	101-3000-1	101-3001-1	0-160
	1/4"	101-3000-2	101-3001-2	
5-60 PSI	1/8"	101-3002-1	101-3003-1	0-100
	1/4"	101-3002-2	101-3003-2	
3-30 PSI	1/8"	101-3004-1	101-3005-1	0-60
	1/4"	101-3004-2	101-3005-2	
1-10 PSI	1/8"	101-3008-1	101-3009-1	0-30
	1/4"	101-3008-2	101-3009-2	



Will mount through panel thickness to 5/16"
Panel Hole Size: 1-7/32"

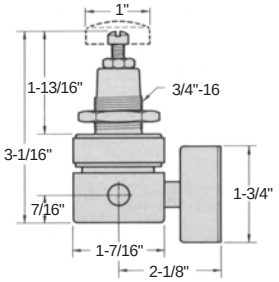
ALUMINUM BONNET

PIPE SIZE: 1/8” OR 1/4”

PANEL MOUNTING 102-3000 SERIES

PIPE MOUNTING 111-3000 SERIES

OPTIMUM PRESSURE RANGE	PIPE SIZE	RELIEVING PIPE MOUNTING	NON-RELIEVING PIPE MOUNTING	RELIEVING PANEL MOUNTING	GAUGE PRESSURE RANGE
10-130 PSI	1/8"	111-3000-1	111-3001-1	102-3000-1	0-160
	1/4"	111-3000-2	111-3001-2	102-3000-2	
5-60 PSI	1/8"	111-3002-1	111-3003-1	102-3002-1	0-100
	1/4"	111-3002-2	111-3003-2	102-3002-2	
3-30 PSI	1/8"	111-3004-1	111-3005-1	102-3004-1	0-60
	1/4"	111-3004-2	111-3005-2	102-3004-2	
20-225 PSI	1/8"	111-3006-1	111-3007-1	102-3006-1	0-200
	1/4"	111-3006-2	111-3007-2	102-3006-2	
1-10 PSI	1/8"	111-3008-1	111-3009-1	102-3008-1	0-30
	1/4"	111-3008-2	111-3009-2	102-3008-2	



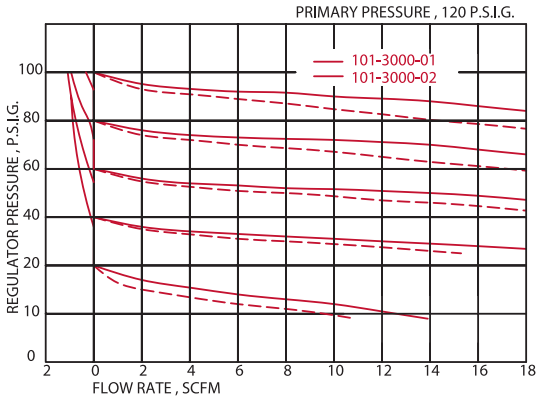
Will mount through panel thickness to 3/8"
Panel Hole Size: 13/16"

CONSTANT BLEED PLUG SPECIFICATIONS

Wide and rapid fluctuations in air demand lead to regulator drift and unstable operation. An optional constant bleed plug may be installed in the second gauge port of any regulator in place of the standard plug. It contains an extremely small orifice which produces a controlled air bleed thus improving stability and protecting the regulator from the effect of high pressure shocks. Order part No. **13520**

Air Bleed
0.350 SCFM @ 80 PSIG
0.450 SCFM @ 100 PSIG

FLOW CHARACTERISTICS / 101-3000



SPECIFICATIONS

All have aluminum housings. Pipe sizes through 1/2" have Buna N diaphragms. Pipe sizes 3/4" and up have pistons with Buna N seals. Maximum primary pressure: 250 psi. Operating temperature range: 0-175°F. Two 1/4" gauge ports standard. All standard regulators are relieving type.

SERIES 1000

PIPE SIZE: 1/4", 3/8", 1/2"

PIPE MOUNTING

Types 101 and 104

PANEL MOUNTING

Types 101 and 104 with Knob

PANEL MOUNTING

Types 102 and 105

BRACKET MOUNTING

Types 103 and 106

(Mounting brackets and panel nuts are supplied)

OPTIMUM PRESSURE RANGE	PIPE SIZE	PIPE MOUNTING	PANEL MOUNTING	BRACKET MOUNTING	GAUGE PRESSURE RANGE
10-130 PSI	1/2"	101-1000-4	102-1000-4	103-1000-4	0-160
	1/4"	104-1000-2	105-1000-2	106-1000-2	
	3/8"	104-1000-3	105-1000-3	106-1000-3	
	1/2"	104-1000-4	105-1000-4	106-1000-4	
5-60 PSI	1/2"	101-1002-4	102-1002-4	103-1002-4	0-100
	1/4"	104-1002-2	105-1002-2	106-1002-2	
	3/8"	104-1002-3	105-1002-3	106-1002-3	
	1/2"	104-1002-4	105-1002-4	106-1002-4	
3-30 PSI	1/2"	101-1004-4	102-1004-4	103-1004-4	0-60
	1/4"	104-1004-2	105-1004-2	106-1004-2	
	3/8"	104-1004-3	105-1004-3	106-1004-3	
	1/2"	104-1004-4	105-1004-4	106-1004-4	
20-250 PSI	1/4"	104-1006-2	105-1006-2	106-1006-2	0-200
	3/8"	104-1006-3	105-1006-3	106-1006-3	
	1/2"	104-1006-4	105-1006-4	106-1006-4	

SERIES 4000 & 5000

PIPE SIZE: 3/4", 1", 1-1/4", 1-1/2"

PIPE MOUNTING

Type 116 "PS"

BRACKET MOUNTING

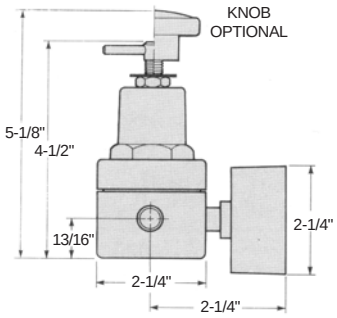
Type 117 "PS"

(Mounting brackets and panel nuts are supplied)

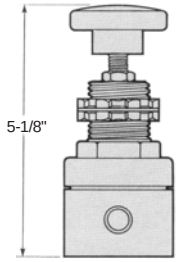
OPTIMUM PRESSURE RANGE	PIPE SIZE	PIPE MOUNTING T-HANDLE	BRACKET MOUNTING	GAUGE PRESSURE RANGE
10-130 PSI	3/4"	116-5000-6PS	117-5000-6PS	0-160
	1"	116-5000-8PS	117-5000-8PS	
	1-1/4"	116-4000-10PS	117-4000-10PS	
	1-1/2"	116-4000-12PS	117-4000-12PS	
5-60 PSI	3/4"	116-5002-6PS	117-5002-6PS	0-100
	1"	116-5002-8PS	117-5002-8PS	
	1-1/4"	116-4002-10PS	117-4002-10PS	
	1-1/2"	116-4002-12PS	117-4002-12PS	
20-250 PSI	3/4"	116-5006-6PS	117-5006-6PS	0-200
	1"	116-5006-8PS	117-5006-8PS	
	1-1/4"	116-4006-10PS	117-4006-10PS	
	1-1/2"	116-4006-12PS	117-4006-12PS	

PIPE SIZE: 1/4”, 3/8" & 1/2"

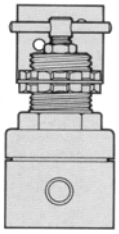
104-1000



105-1000

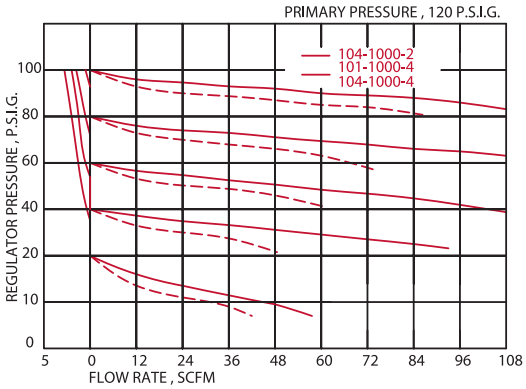


106-1000

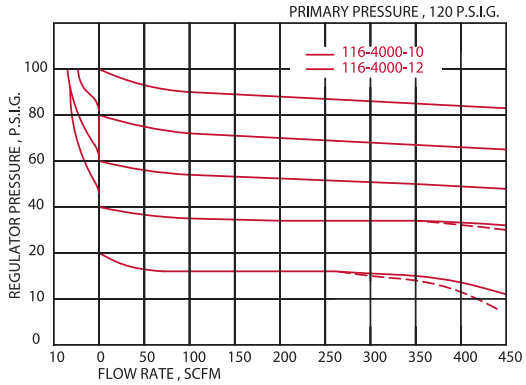


Mounting threads 1-5/16-12
Panel hole size 1-3/8”

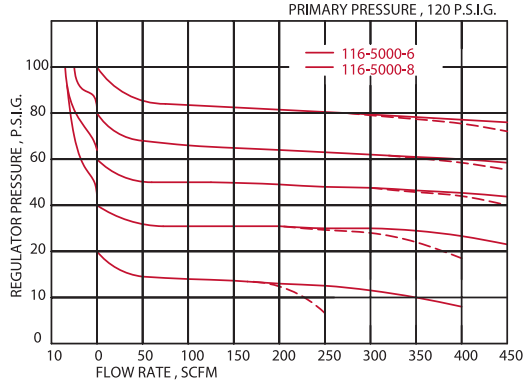
FLOW CHARACTERISTICS 104-1000-2/4



FLOW CHARACTERISTICS 116-4000-10/12



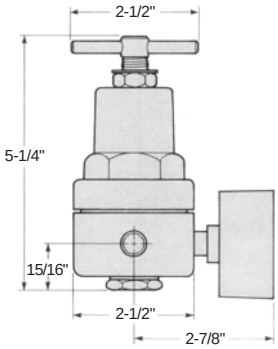
FLOW CHARACTERISTICS 116-5000-6/8



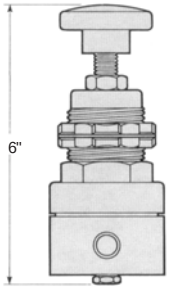
Inverse Pressure Effect:
For each 50 psi primary pressure change, the secondary pressure reacts inversly 1 psi.

PIPE SIZE: 1/2”

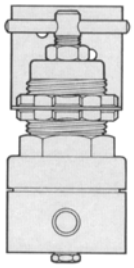
SERIES 101-1000



102-1000



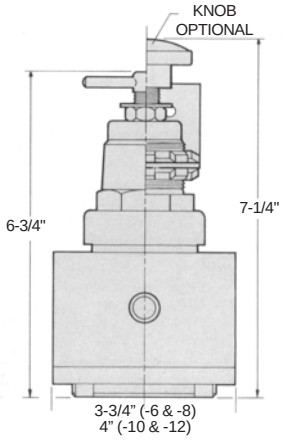
103-1000



Mounting threads 1-5/8-12
Panel hole size 1-3/4”

PIPE SIZE: 3/4”, 1”, 1-1/4” & 1-1/2”

SERIES 116-4000-PS/5000-PS **&** **SERIES 117-4000-PS/5000-PS**



Mounting threads 1-5/8-12 • Panel hole size 1-3/4”

VALVE SANDWICH BLOCK/MANIFOLD MOUNTED REGULATORS

Monnier Valve Sandwich Block and Manifold Mounted Regulators are designed to be mounted between a pneumatic valve sub-base and a valve body.

All units have aluminum bodies. Size 1 and 2 units are available with either polycarbonate or aluminum bonnets. Size 3 is available with an aluminum bonnet only.

An adjusting T-handle is standard on Size 3 units. Size 1 and 2 models with aluminum bonnets have adjusting screws. Seals are Buna-N.

Order manifolds by number of stations required and size of regulators. Ex: M4-3BA1 - Four station manifold with size three regulators (anodized blue) and mounting bracket. Order regulators separately.

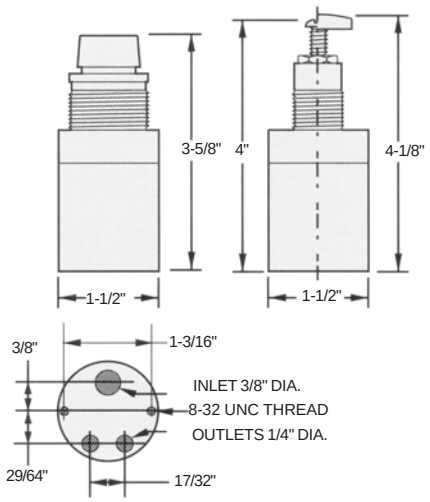
Optimum Pressure Range	Size 1 Relieving	Size 1 Non-Relieving	Size 2 Relieving	Size 2 Non-Relieving
Aluminum Bonnet				
10 to 110	R01-10A	R01-11A	R01-20A	R01-21A
4 to 45	R01-12A	R01-13A	R01-22A	R01-23A
2 to 20	R01-14A	R01-15A	R01-24A	R01-25A
20 to 220	R01-16A	R01-17A	R01-26A	R01-27A
Polycarbonate Bonnet				
10 to 110	R01-10P	R01-11P	R01-20P	R01-21P
4 to 45	R01-12P	R01-13P	R01-22P	R01-23P
2 to 20	R01-14P	R01-15P	R01-24P	R01-25P

Optimum Pressure Range	Size 3 Relieving	Size 3 Non-Relieving
Aluminum Bonnet		
10 to 130	R01-30A	R01-31A
5 to 60	R01-32A	R01-33A
3 to 30	R01-34A	R01-35A
20 to 250	R01-36A	R01-37A

SIZE 1

PLASTIC BONNET

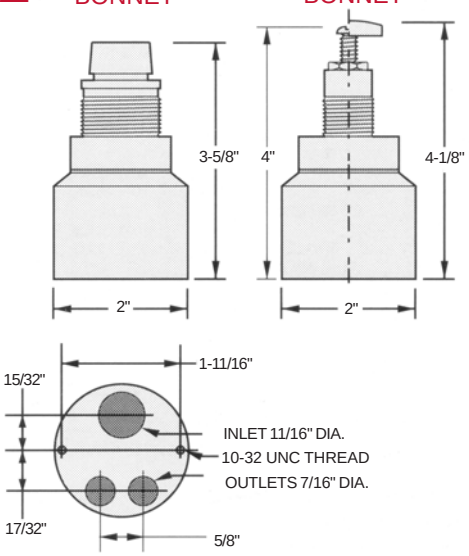
ALUMINUM BONNET



SIZE 2

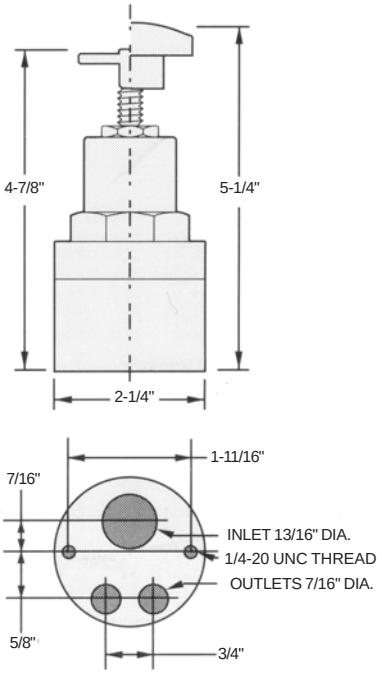
PLASTIC BONNET

ALUMINUM BONNET

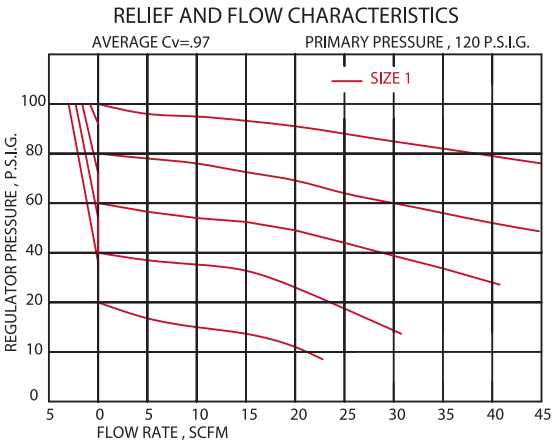


SIZE 3

ALUMINUM BONNET

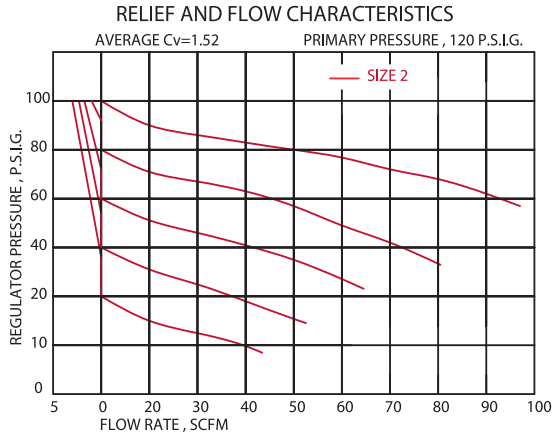


RELIEF AND FLOW CHARACTERISTICS



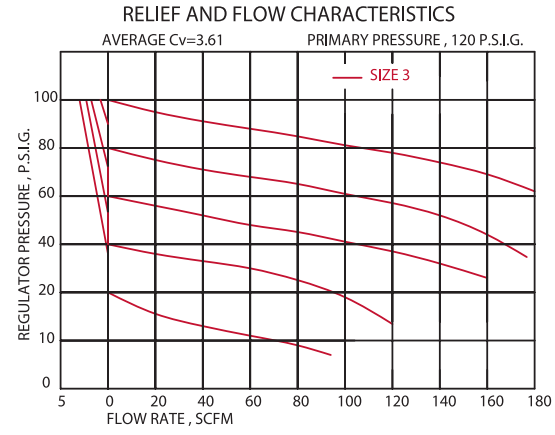
INVERSE PRESSURE EFFECT

For each 25 PSI primary pressure change, the secondary pressure reacts inversely 1 PSI.



INVERSE PRESSURE EFFECT

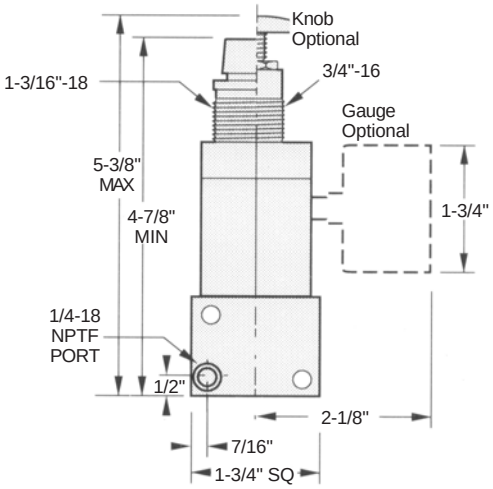
For each 50 PSI primary pressure change, the secondary pressure reacts inversely 1 PSI.

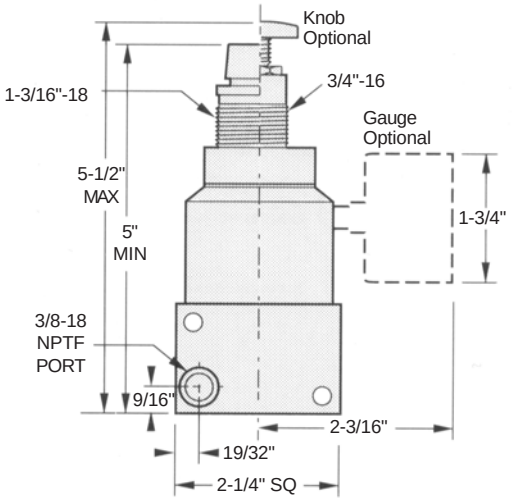


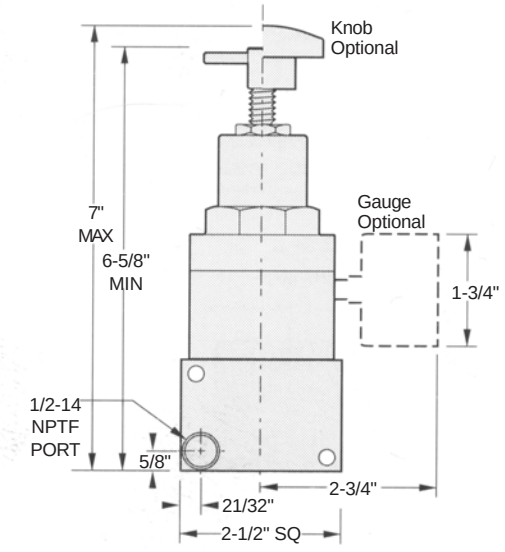
INVERSE PRESSURE EFFECT

For each 50 PSI primary pressure change, the secondary pressure reacts inversely 1 PSI.

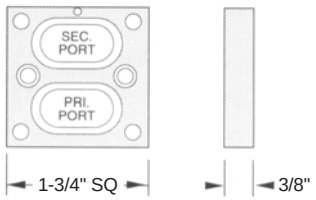
MANIFOLDS





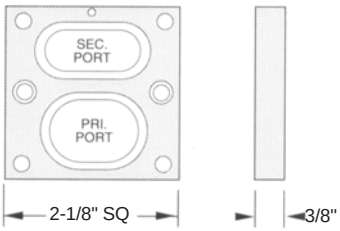


ADAPTER PLATES



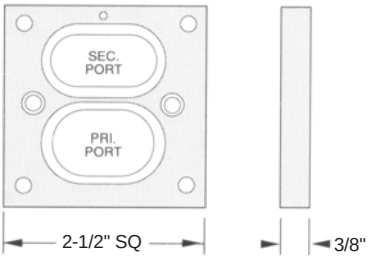
ADAPTER PLATE KIT SIZE ONE

Order Part Number 11708



ADAPTER PLATE KIT SIZE TWO

Order Part Number 11718



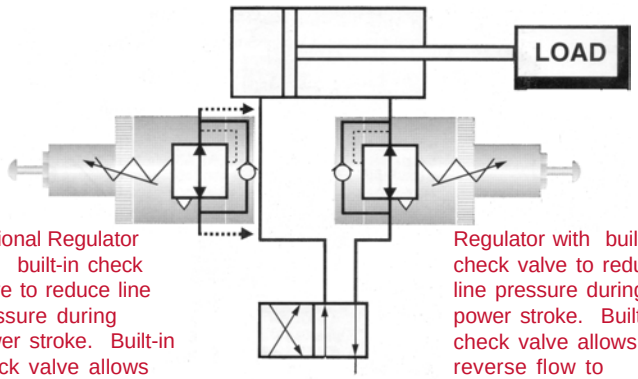
ADAPTER PLATE KIT SIZE THREE

Order Part Number 11733

Adapter plates used for mounting regulator to your manifold or sandwhich block. Please consult factory for interface dimensions and sizes.

REGULATORS WITH BUILT-IN CHECK VALVES

Pneumatic Cylinder



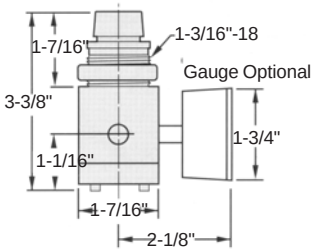
Optional Regulator with built-in check valve to reduce line pressure during power stroke. Built-in check valve allows full reverse flow to exhaust during return stroke.

Regulator with built-in check valve to reduce line pressure during power stroke. Built-in check valve allows full reverse flow to exhaust during power stroke.

Typical pneumatic cylinder circuit using regulators with built-in check valves.

Monnier Regulators with Built-In Check Valves are designed like our standard regulators with an optimum secondary pressure range of 1-250 psi.

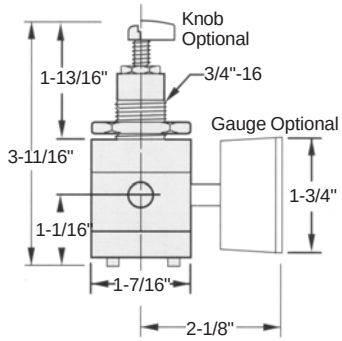
101C-3000 SERIES



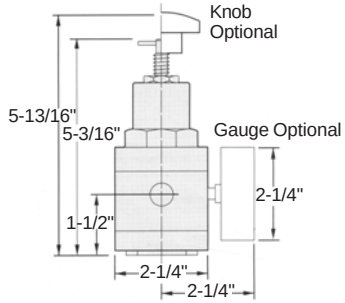
OPTIMUM PRESSURE RANGE	PIPE SIZE	POLY-CARBONATE BONNET	RELIEVING PIPE MOUNTING	RELIEVING PANEL MOUNTING	GAUGE PRESSURE RANGE
10-130 PSI	1/8"	101C-3000-1	111C-3000-1	102C-3000-1	0-160
	1/4"	101C-3000-2	111C-3000-2	102C-3000-2	
5-60 PSI	1/8"	101C-3002-1	111C-3002-1	102C-3002-1	0-100
	1/4"	101C-3002-2	111C-3002-2	102C-3002-2	
3-30 PSI	1/8"	101C-3004-1	111C-3004-1	102C-3004-1	0-60
	1/4"	101C-3004-2	111C-3004-2	102C-3004-2	
20-225 PSI	1/8"	N/A	111C-3006-1	102C-3006-1	0-200
	1/4"	N/A	111C-3006-2	102C-3006-2	
1-10 PSI	1/8"	101C-3008-1	111C-3008-1	102C-3008-1	0-30
	1/4"	101C-3008-2	111C-3008-2	102C-3008-2	

Inverse Pressure Effect: For each 25 PSI primary pressure change, the secondary pressure reacts inversly 1 PSI.

102C/111C-3000 SERIES



104C/105C/106C-1000 SERIES



OPTIMUM* PRESSURE RANGE	PIPE SIZE	PIPE MOUNTING	PANEL MOUNTING	BRACKET MOUNTING	GAUGE PRESSURE RANGE
10-130 PSI	1/4"	104C-1000-2	105C-1000-2	106C-1000-2	0-160
	3/8"	104C-1000-3	105C-1000-3	106C-1000-3	
	1/2"	104C-1000-4	105C-1000-4	106C-1000-4	
5-60 PSI	1/4"	104C-1002-2	105C-1002-2	106C-1002-2	0-100
	3/8"	104C-1002-3	105C-1002-3	106C-1002-3	
	1/2"	104C-1002-4	105C-1002-4	106C-1002-4	
3-30 PSI	1/4"	104C-1004-2	105C-1004-2	106C-1004-2	0-60
	3/8"	104C-1004-3	105C-1004-3	106C-1004-3	
	1/2"	104C-1004-4	105C-1004-4	106C-1004-4	
20-260 PSI	1/4"	104C-1006-2	105C-1006-2	106C-1006-2	20-250
	3/8"	104C-1006-3	105C-1006-3	106C-1006-3	
	1/2"	104C-1006-4	105C-1006-4	106C-1006-4	

Inverse Pressure Effect: For each 50 PSI primary pressure change, the secondary pressure reacts inversly 1 PSI.

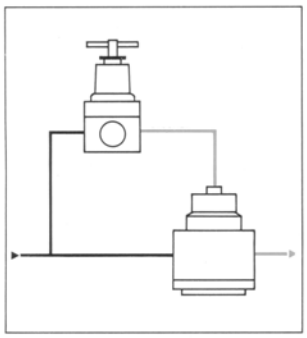
PILOT OPERATED PRESSURE REGULATORS

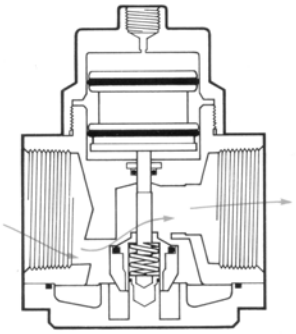
The setpoint pressures of Monnier Pilot Operated Pressure Regulators are adjusted by changing the pressure settings of smaller regulators that function as their pilots. This allows full remote control of all pressure settings between 10 and 225 psi (depending on the range of the pilot used).

Features:

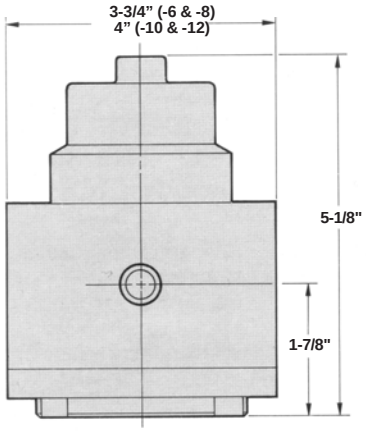
- Piston actuation for fast response and compact design.
- Large flows handled with negligible pressure droop.
- Two 1/4" NPT gauge ports.
- 1/4" pilot port.

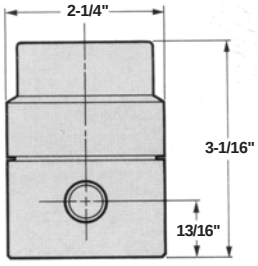
Pressure: 250 psi maximum inlet pressure.
Temperature: -10°F to 175°F.
Materials: Aluminum body and bonnet, plated steel screws. Brass internals and Buna N seals. Viton seals optional.





OPTIMUM* PRESSURE RANGE	PIPE SIZE (INCHES NPT)	MODEL NUMBER RELIEVING*
10-225 (depending on the range of the pilot used)	1/4	118-1000-2
	3/8	118-1000-3
	1/2	118-1000-4
	3/4	118-5000-6
	1	118-5000-8
	1-1/4	118-4000-10
	1-1/2	118-4000-12





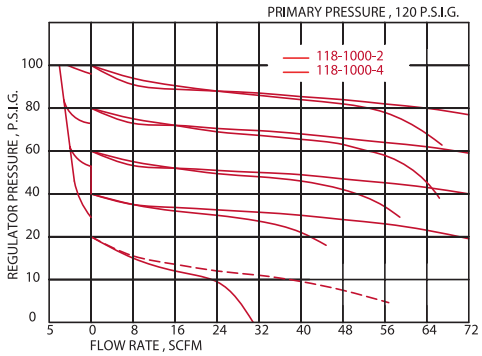
PIPE MOUNTING SERIES 1000

PIPE SIZE: 1/4", 3/8", 1/2"

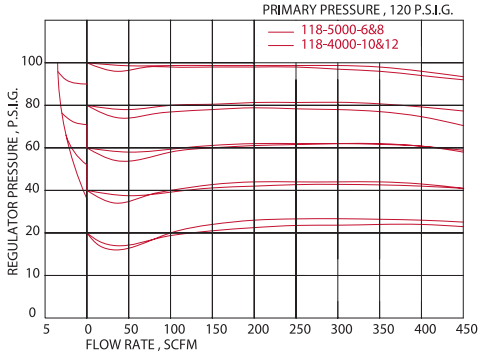
PIPE MOUNTING SERIES 4000 & 5000

PIPE SIZE: 3/4", 1", 1-1/4", 1-1/2"

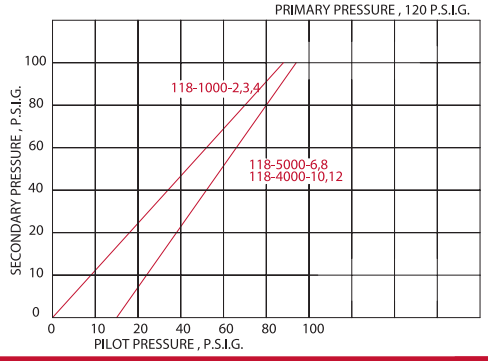
FLOW CHARACTERISTICS / 118-1000-2/4



FLOW CHARACTERISTICS / 118-5000-6-8/10-12



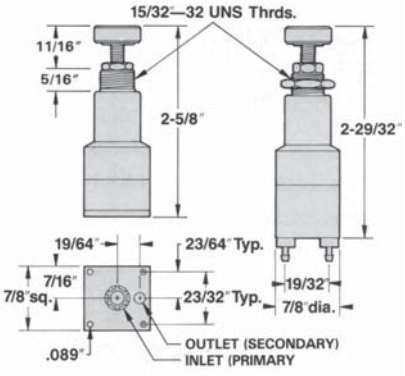
FLOW CHARACTERISTICS / 118-4000-10-12



SUBMINIATURE REGULATORS

Monnier Subminiature Regulators are specifically designed for use with low-volume air flows or for dead-end service.

They're offered in two mounting styles. The style for panel or line mounting has barbed fittings for connection to 1/16" or 1/8" ID tubing, and a panel mounting nut. The other style is for sub-base mounting, and can be installed directly on valve manufacturer's riser blocks. For gasket mounting kit, order part number 10514.



Features:

- True instrumentation quality
- Lightweight compact design
- Excellent repeatability
- Ideal where space is at a premium

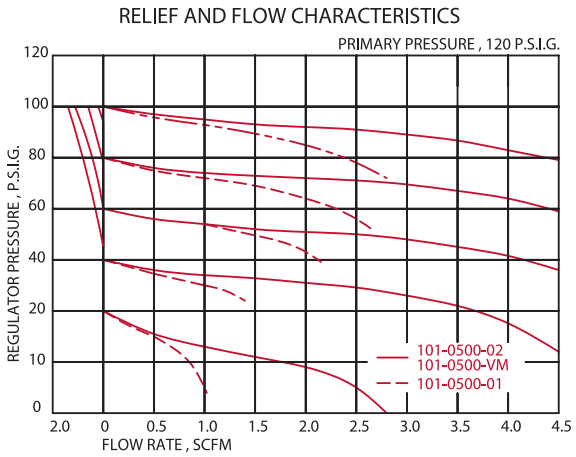
Drawing number 09127 showing interface to sub-base is available. Consult factory.

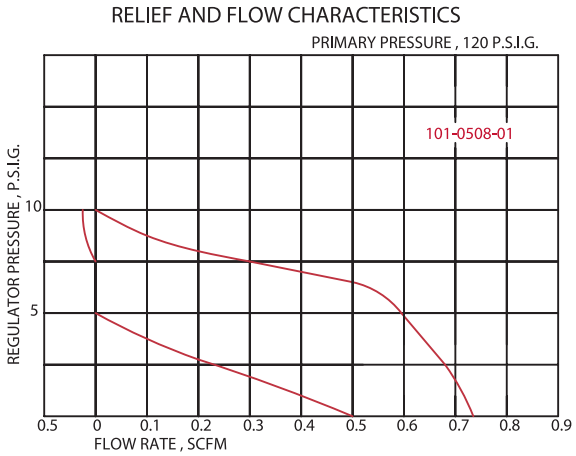
Panel Hole Size: 1/2"

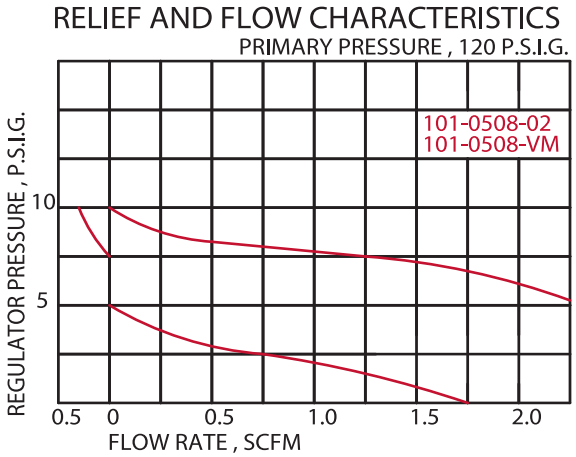
Materials: Aluminum body and bonnet, clear anodized.

Plated steel spring and adjustment screw, brass stem and tube fittings. Buna N seals and plastic knob. Check tubing manufacturers max. pressures using push-on tube connections.

For service on gases other than compressed air, consult factory.





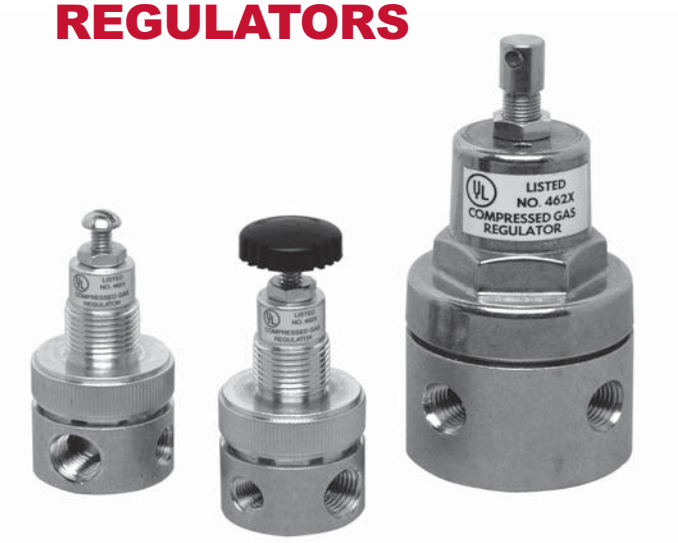


OPTIMUM* PRESSURE RANGE (PSI)	CONNECTION (INCHES)	RELIEVING TYPE
0-10	1/16 ID x 1/8 OD Tubing	101-0508-01
	1/8 ID x 1/4 OD Tubing	101-0508-02
0-25	1/16 ID x 1/8 OD Tubing	101-0504-01
	1/8 ID x 1/4 OD Tubing	101-0504-02
0-100	1/16 ID x 1/8 OD Tubing	101-0500-01
	1/8 ID x 1/4 OD Tubing	101-0500-02
0-10	Sub-base Mounted	101-0508-VM
0-25	Sub-base Mounted	101-0504-VM
1-100	Sub-base Mounted	101-0500-VM

INVERSE PRESSURE EFFECT

MODEL NUMBER	FOR PRIMARY PRESSURE PRESSURE CHANGE OF	SECONDARY PRESSURE CHANGES INVERSELY
101-0508-XX	20 PSI	1 PSI
101-0504-XX	10 PSI	1 PSI
101-0500-XX	4.7 PSI	1 PSI

UL LABEL REGULATORS



Monnier UL Label Regulators give the assurance of a UL-listed product. Available in both miniature and standard sizes. Excellent for use in dry fire sprinkler systems.

PIPE SIZE	10 - 130 PSI MINIATURE	10 - 130 PSI STANDARD	5 - 60 PSI MINIATURE	5 - 60 PSI STANDARD
1/8"	111-3000-1UL	-	111-3002-1UL	-
1/4"	111-3000-2UL	104-1000-2UL	111-3002-2UL	104-1002-2UL
3/8"	-	104-1000-3UL	-	104-1002-3UL
1/2"	-	104-1000-4UL	-	104-1002-4UL

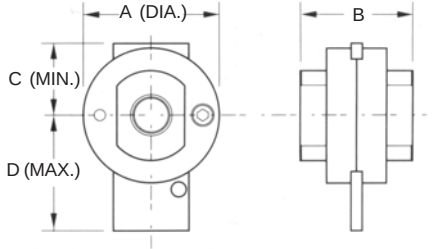
Note: To order the 111-3000 series with an adjustment knob, add suffix "**K**".

SAFETY LOCKOUT VALVES

To meet current **OSHA requirements and protect maintenance personnel**, a safety lockout valve should be installed when repairing pneumatically powered equipment.

Monnier now carries a complete line of aluminum **SAFETY LOCKOUT VALVES**— 1/8" thru 1/2" NPT. For color coding, anodizing is available.

FOR ADDED SAFETY:
When installing a Safety Lockout Valve in a circuit ahead of an FRL, use a **MONNIER CHECK VALVE REGULATOR** in the FRL to completely exhaust downstream pressure to atmosphere.



PIPE SIZE	MODEL NUMBER	A	B	C	D
1/8	20-501	1-3/4	1-3/8	15/16	1-9/16
1/4	20-502				
3/8	20-503	2-1/4	1-7/8	1-3/16	1-15/16
1/2	20-504				

MINIATURE PRESSURE RELIEF VALVES

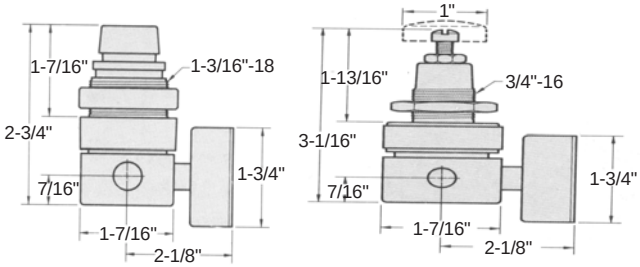
POLYCARBONATE OR ALUMINUM BONNET

PIPE SIZE: 1/8 OR 1/4"

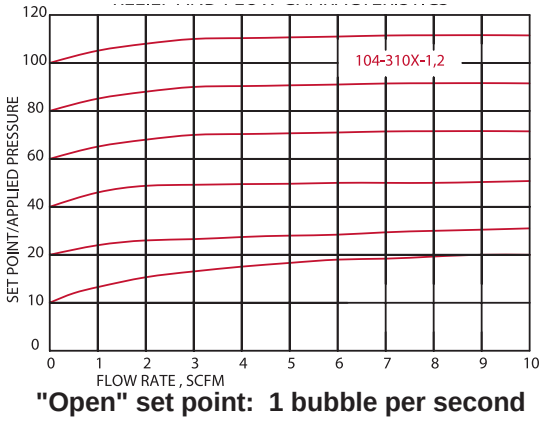
PLASTIC BONNET (104-3101-1) | PANEL MOUNTING (106-3101-1) | PIPE MOUNTING (114-3100-1)

OPTIMUM PRESSURE RANGE (PSI)	PIPE SIZE (in.)	PLASTIC BONNET	ALUMINUM BONNET PANEL MOUNTING	ALUMINUM BONNET PIPE MOUNTING	GAUGE PRESSURE RANGE
5-100	1/8	104-3101-1	106-3101-1	114-3101-1	0-160
	1/4	104-3101-2	106-3101-2	114-3101-2	
3-30	1/8	104-3105-1	106-3105-1	114-3105-1	0-60
	1/4	104-3105-2	106-3105-2	114-3105-2	
1-10	1/8	104-3109-1	106-3109-1	114-3109-1	0-30
	1/4	104-3109-2	106-3109-2	114-3109-2	
Panel Nut	(Order)	13,133	Included	13,025	

Note: These relief valves should not be used to limit pressures outside the recommended ranges.



RELIEF AND FLOW CHARACTERISTICS

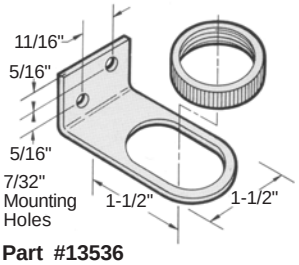


"Open" set point: 1 bubble per second

MOUNTING ACCESSORIES

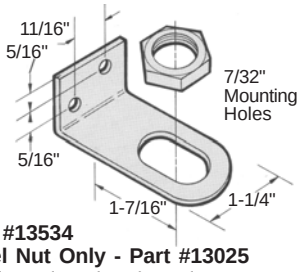
BONNET MOUNTING TYPE

FOR UNITS WITH: POLYCARBONATE BONNETS SERIES 101-3000, 104-3100 and B01-3000



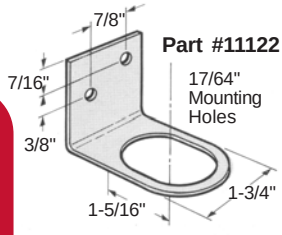
Part #13536
Panel Nut Only - Part #13133
This is a zinc-plated steel bracket and aluminum panel nut.

FOR UNITS WITH: ALUMINUM BONNETS SERIES 111-3000, 102-3000,C01-3000, 106-3100 and 114-3100



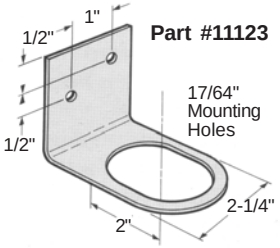
Part #13534
Panel Nut Only - Part #13025
This is a zinc-plated steel bracket and aluminum panel nut.

FOR USE WITH 105/106-1000 SERIES REGULATORS



Part #11122

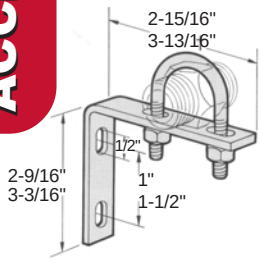
FOR USE WITH 102/103-1000 and 117-4000/5000 PS SERIES REGULATORS



Part #11123

PIPE MOUNTING TYPE

FOR USE WITH 1000/4000/5000 SERIES

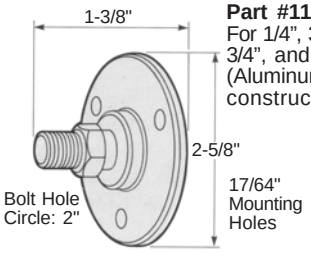


Part #11543
For pipe sizes 1/4", 3/8" and 1/2",
Part #11542
For pipe sizes 3/4" and 1"

This is a zinc-plated steel bracket with U-bolt and lock nuts as shown. The U-bolt fits around the inlet or outlet pipe, nipple, etc.

STUD MOUNTED TYPE

FOR USE WITH 1000/4000/5000 SERIES



Part #11520
For 1/4", 3/8", 1/2", 3/4", and 1" (Aluminum construction)

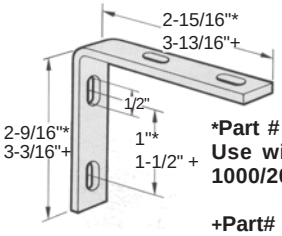
These mounting brackets are designed to fit all regulators with ¼" gauge ports. Remove the pipe plug in the back of the regulator and insert stud.

Notes:

1. For filters and lubricators, order with 1/4" NPT mounting holes on side surface. Add suffix "MS" to model number.

2. Cannot use "MH" or "MS" option with miniature lubricators. Could use pipe mounting type bracket #11543.

ANGLE MOUNTING TYPE



***Part # 11038**
Use with 1000/2000/3000 Series

+Part# 15037
Use with 4000/5000 Series

Note: Filters and lubricators must be ordered with two 1/4-20 mounting holes on top surfaces. Add suffix "MH" to model number.

PRESSURE GAUGES

FOR 3000 SERIES REGULATORS 1/8" NPT, CENTERBACK OR PANEL MOUNTED

PRESSURE (PSI)	RANGE (kPA)	CENTERBACK PART NUMBER	PANEL MTND. PART NUMBER
0-30	0-205	13528	-
0-60	0-415	13529	-
0-100	0-690	13523	-
0-160	0-1100	13524	*13576
0-200	0-1375	13558	

*1-5/8" diameter hole for panel mounting.
All gauges have dual scales, psi and kPa.
100 kPa = 1 bar = 14.5 psi

FOR 1000, 4000 and 5000 SERIES REGULATORS

1/4" NPT CENTERBACK MOUNTED

1/4" BOTTOM MOUNTED

Part Number	Pressure Range (PSI)	(kPa)	Part Number
11525	0-30	0-205	11552
11526	0-60	0-415	11553
11527	0-100	0-690	11554
11528	0-160	0-1100	11555
11550	0-200	0-1375	

Note: Custom logo gauges are available, please consult factory.

TAMPERPROOF LOCK AND KEY

These tamperproof lock and key kits may be used on the following regulators and integral filter/regulators. Contact the factory for additional information

FOR REGULATOR MODEL NUMBER	ORDER KIT NO.
101, 102 & 103-1000 Series	11564
104, 105 & 106-1000 Series	11560
116 & 117-4000/5000PS Series	11519
C01-1000/2000 Series	11564

ACCESSORIES

Notes

Air Line Lubricators

Monnier lubricators are used to maintain the proper ratio of oil and air and to maximize the performance and guarantee long life of pneumatic machinery.

Once the oil rate is set, a Monnier Lubricator provides reliable automatic lubrication. The Monnier design ensures efficient and dependable performance.

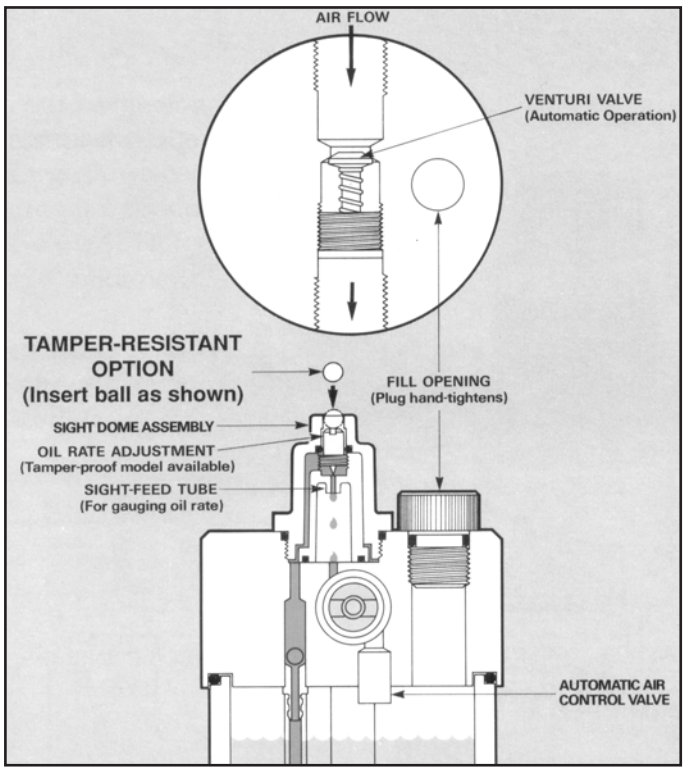
The Monnier Venturi Valve automatically maintains the ratio of oil to air that the user selects. It assures lubrication even at the lowest possible air flow (see flow curves on following pages). By automatically increasing the air pressure behind the oil in the main reservoir in proportion to the increased air flow, the Venturi valve provides the desired degree of lubrication regardless of air flow rate.

The Monnier Sight Dome is molded from transparent polycarbonate that can be viewed at a full 360°. It includes an adjustment screw for setting the oil rate, and a sight-feed tube where the oil can be visually measured, drop by drop.

The lubricator is supplied with a 3/16" diameter ball that may be pressed or tapped into the top of the sight dome adjustment area after the oil rate is set. This prevents any further adjustment by unauthorized personnel.

The automatic air control valve allows you to fill the oil reservoir while the unit is pressurized and without shutting down. This feature is not available on the miniature units.

Polycarbonate sight levels and sight domes are standard; however, trogamid is available for environments or fluids harmful to polycarbonate. In addition, Viton seals are available for situations where Buna-N is not acceptable.



MAXIMUM PRESSURE

Pressure in polycarbonate bowls:	150 psi
Pressure in metal bowls:	250 psi

MAXIMUM TEMPERATURE

Temperature in polycarbonate bowls:	120°F
Temperature in metal bowls:	200°F

CAUTION

Bowl guards are recommended on all polycarbonate bowl lubricators! All bowl guards are made of heavy-duty stainless steel.

WARNING

Polycarbonate bowls can be damaged and may fail if they are exposed to or come in contact with solvents, strong alkalies, fire resistant and/or synthetic compressor lubricants.

To add a knurled adjustment knob to any lubricator, change the seventh number from "0" to "2". Example: 304-1002-2.

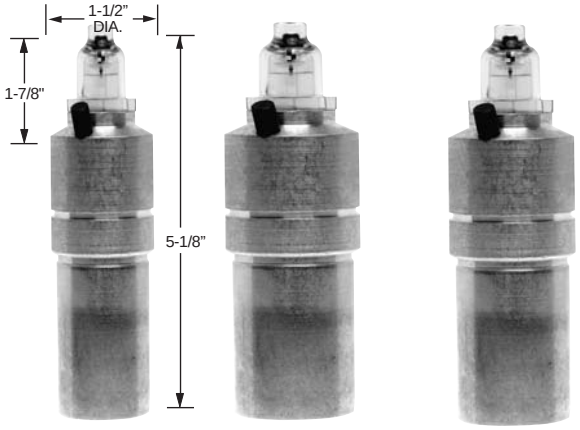
Q-Fill Button is available on all except miniature (3000 Series) lubricators. Order #31527 - Top fill button or #31501 bottom fill button.

ANODIZING

These units may be anodized in your choice of eight bright colors - blue, black, clear, green, red, yellow, gold and purple.

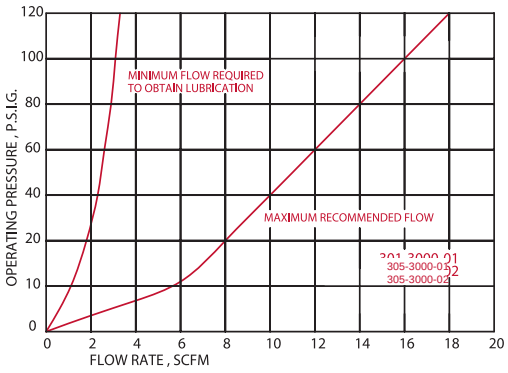
MINIATURE LUBRICATORS

1-Ounce Capacity
Polycarbonate or Metal Bowl
Pipe Size: 1/8" or 1/4"

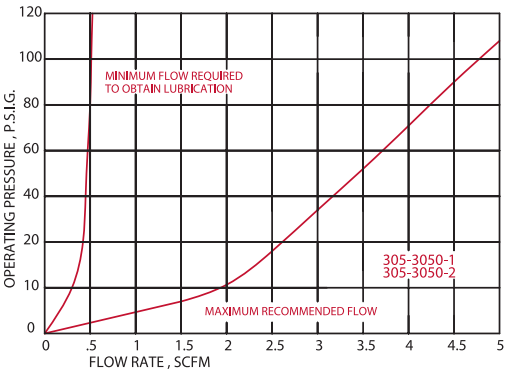


Pipe Size	Model Number
POLYCARBONATE BOWL	
(High Flow)	
With Bowl Guard (23581)	
1/8"	305-3100-1
1/4"	305-3100-2
Without Bowl Guard	
1/8"	305-3000-1
1/4"	305-3000-2
(Low Flow)	
With Bowl Guard (23581)	
1/8"	305-3150-1
1/4"	305-3150-2
Without Bowl Guard	
1/8"	305-3050-1
1/4"	305-3050-2
METAL BOWL	
(High Flow)	
1/8"	305-3200-1
1/4"	305-3200-2
(Low Flow)	
1/8"	305-3250-1
1/4"	305-3250-2

HI-FLO **FLOW CHARACTERISTICS / 305-3000**

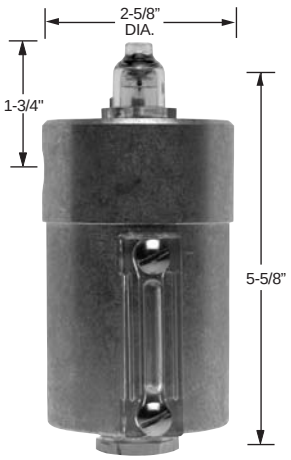


LO-FLO **FLOW CHARACTERISTICS / 305-3050**



COMPACT LUBRICATORS

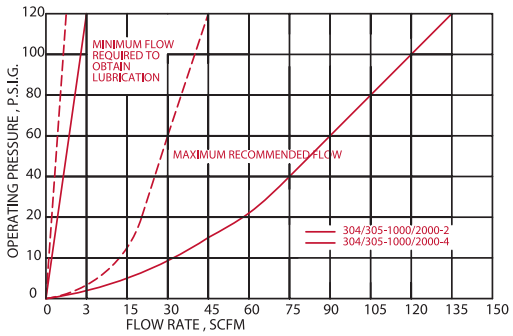
5-Ounce Capacity
Polycarbonate or Metal Bowl
Pipe Size 1/4", 3/8", 1/2"



Pipe Size	Model Number
POLYCARBONATE BOWL	
With Bowl Guard (22089)	
1/4"	304-2100-2
3/8"	304-2100-3
1/2"	304-2100-4
Without Bowl Guard	
1/4"	304-2000-2
3/8"	304-2000-3
1/2"	304-2000-4
METAL BOWL	
With Sight Level (21538)	
1/4"	304-2300-2
3/8"	304-2300-3
1/2"	304-2300-4
Without Sight Level	
1/4"	304-2200-2
3/8"	304-2200-3
1/2"	304-2200-4

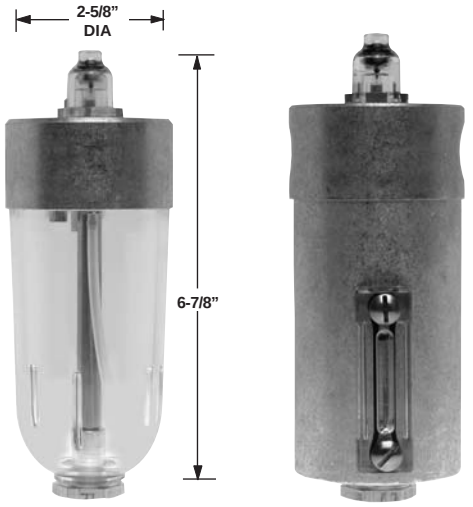
Note: To order with drain cock add suffix **"MD"**.

FLOW CHARACTERISTICS / 304/305-1000/2000



STANDARD LUBRICATORS

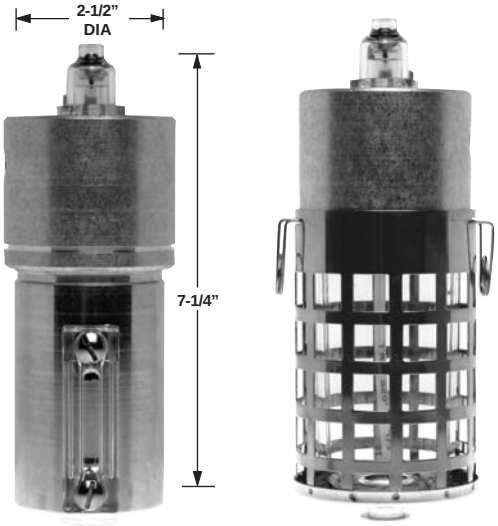
8-OUNCE CAPACITY
POLYCARBONATE or METAL BOWL
PIPE SIZE: 1/4, 3/8, 1/2"



Pipe Size	Model Number
POLYCARBONATE BOWL	
With Bowl Guard (21088)	
1/4"	304-1100-2
3/8"	304-1100-3
1/2"	304-1100-4
Without Bowl Guard	
1/4"	304-1000-2
3/8"	304-1000-3
1/2"	304-1000-4
METAL BOWL	
With Sight Level (21538)	
1/4"	304-1300-2
3/8"	304-1300-3
1/2"	304-1300-4
Without Sight Level	
1/4"	304-1200-2
3/8"	304-1200-3
1/2"	304-1200-4

STANDARD LUBRICATORS THREADED BOWLS

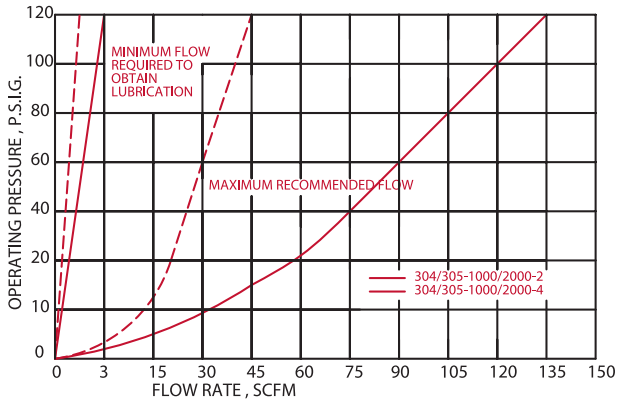
8-OUNCE CAPACITY
POLYCARBONATE or METAL BOWL



Pipe Size	Model Number
POLYCARBONATE BOWL	
With Bowl Guard (21088)	
1/4"	305-1100-2
3/8"	305-1100-3
1/2"	305-1100-4
Without Bowl Guard	
1/4"	305-1000-2
3/8"	305-1000-3
1/2"	305-1000-4
METAL BOWL	
With Sight Level (21538)	
1/4"	305-1300-2
3/8"	305-1300-3
1/2"	305-1300-4
Without Sight Level	
1/4"	305-1200-2
3/8"	305-1200-3
1/2"	305-1200-4

Note: To order with drain cock add suffix **"MD"**.

FLOW CHARACTERISTICS / 304/305-1000/2000



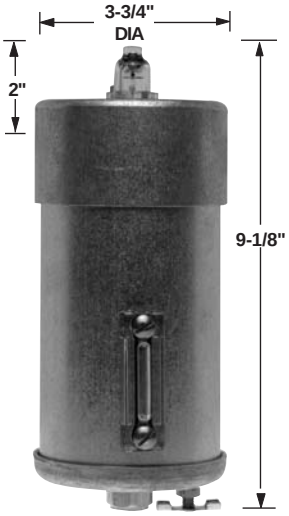
STANDARD LUBRICATORS

32-OUNCE CAPACITY
POLYCARBONATE OR
METAL BOWL
PIPE SIZE: 1/4, 3/8 OR 1/2”

Pipe Size	Model Number
POLYCARBONATE BOWL	
With Bowl Guard (24023)	
1/4"	304-4100-2
3/8"	304-4100-3
1/2"	304-4100-4
Without Bowl Guard	
1/4"	304-4000-2
3/8"	304-4000-3
1/2"	304-4000-4
METAL BOWL	
With Sight Level (21538)	
1/4"	304-4300-2
3/8"	304-4300-3
1/2"	304-4300-4
Without Sight Level	
1/4"	304-4200-2
3/8"	304-4200-3
1/2"	304-4200-4

STANDARD LUBRICATORS

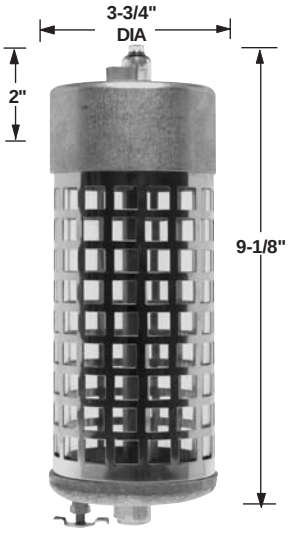
21-OUNCE CAPACITY
POLYCARBONATE OR METAL BOWL
PIPE SIZE: 3/4 OR 1”



Pipe Size	Model Number
POLYCARBONATE BOWL	
With Bowl Guard (25057)	
3/4"	303-5100-6
1/2"	303-5100-8
Without Bowl Guard	
3/4"	303-5000-6
1/2"	303-5000-8
METAL BOWL	
With Sight Level (21538)	
3/4"	303-5300-6
1/2"	303-5300-8
Without Sight Level	
3/4"	303-5200-6
1/2"	303-5200-8

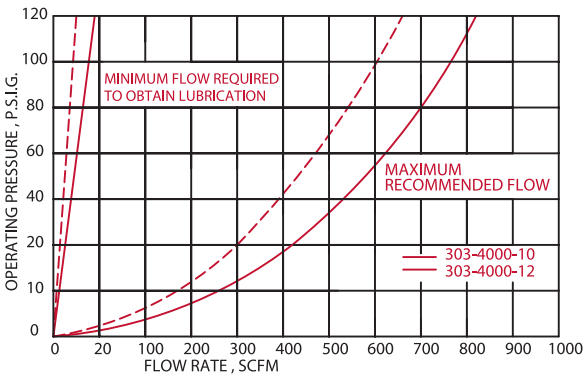
HEAVY-DUTY LUBRICATORS

32-OUNCE CAPACITY
POLYCARBONATE BOWL
PIPE SIZE: 3/4, 1, 1-1/4 OR 1-1/2”

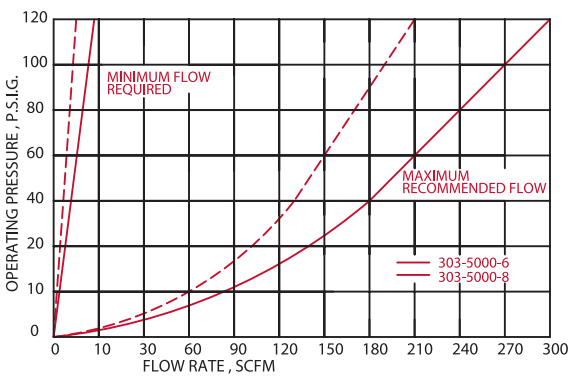


Pipe Size	Model Number
POLYCARBONATE BOWL	
With Bowl Guard (24023)	
3/4"	303-4100-6
1"	303-4100-8
1-1/4"	303-4100-10
1-1/2"	303-4100-12
Without Bowl Guard	
3/4"	303-4000-6
1"	303-4000-8
1-1/4"	303-4000-10
1-1/2"	303-4000-12
METAL BOWL	
With Sight Level (21538)	
3/4"	303-4300-6
1"	303-4300-8
1-1/4"	303-4300-10
1-1/2"	303-4300-12
Without Sight Level	
3/4"	303-4200-6
1"	303-4200-8
1-1/4"	303-4200-10
1-1/2"	303-4200-12

FLOW CHARACTERISTICS / 303-5000



FLOW CHARACTERISTICS / 303-4000



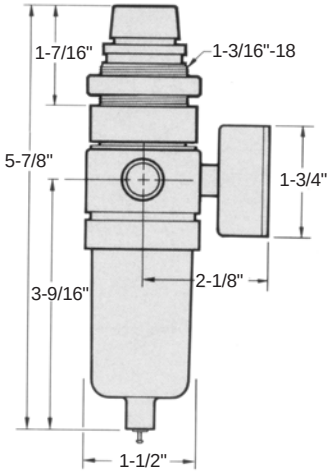
Integral Filters Regulators

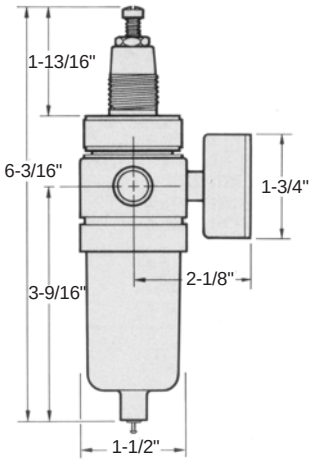
MINIATURE FILTER/ REGULATORS

1-OUNCE CAPACITY
POLYCARBONATE OR METAL BONNET
POLYCARBONATE OR METAL BOWL
PIPE SIZE" 1/8" OR 1/4"

Miniature air filter/ regulator with plastic bonnet and bowl with bowl guard

Miniature oil-coalescing filter/regulator with metal bonnet, plastic bowl and automatic drain





When an application requires mounting of air controls in a cabinet or reduced piping in a system, the Monnier Integral units are the ideal choice. Regulators are combined with either standard air filters or with oil-coalescing filters. There is no sacrifice in the performance of any part of these combinations when the piggybacks are utilized.

On metal bowl units, polycarbonate sight levels are standard; however, trogamid is available for environments or fluids harmful to polycarbonate. In addition, Viton seals are available for situations where Buna-N is not acceptable.

MAXIMUM PRESSURE

Pressure in polycarbonate bowls: 150 psi
Pressure in metal bowls: 250 psi

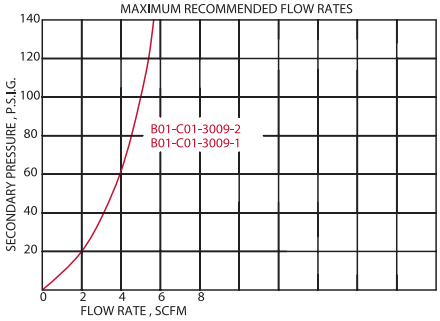
MAXIMUM TEMPERATURE

Temperature in polycarbonate bowls: 120°F
Temperature in metal bowls: 200°F

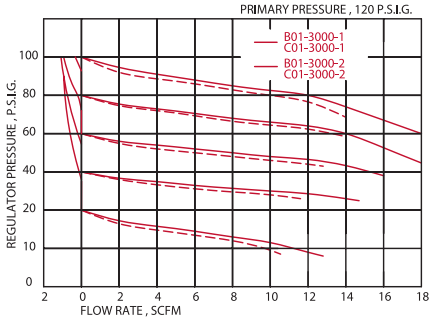
For additional information regarding filters and regulators, see pages one and nine as these guidelines also apply to Integral Filter/Regulators.

Pipe Size	POLYCARBONATE BOWL With Guard (23581)	Without Guard	METAL BOWL
Polycarbonate Bonnet with Particulate Filters			
1/8"	B01-3100-1	B01-3000-1	B01-3200-1
1/4"	B01-3100-2	B01-3000-2	B01-3200-2
ELEMENTS			
3 Micron - #23024 (3002)			
10 Micron - #23025 (3001)			
20 Micron - #23004 (3000 STD)			
Polycarbonate Bonnet with Oil-Coalescing Filters			
1/8"	B01-3109-1	B01-3009-1	B01-3209-1
1/4"	B01-3109-2	B01-3009-2	B01-3209-2
ELEMENT			
.3 Micron - #23543			
Metal Bonnet with Particulate Filters			
1/8"	C01-3100-1	C01-3000-1	C01-3200-1
1/4"	C01-3100-2	C01-3000-2	C01-3200-2
ELEMENTS			
3 Micron - #23024 (3002)			
10 Micron - #23025 (3001)			
20 Micron - #23004 (3002 STD)			
Metal Bonnet with Oil-Coalescing Filters			
1/8"	C01-3109-1	C01-3009-1	C01-3209-1
1/4"	C01-3109-2	C01-3009-2	C01-3209-2
ELEMENT			
.3 Micron - #23543			

COALESCING FILTER
MAXIMUM RECOMMENDED FLOW RATES

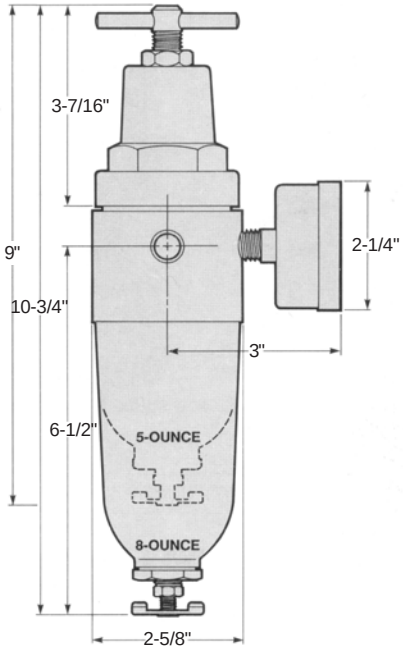


RELIEF AND FLOW CHARACTERISTICS
PRIMARY PRESSURE, 120 P.S.I.G.



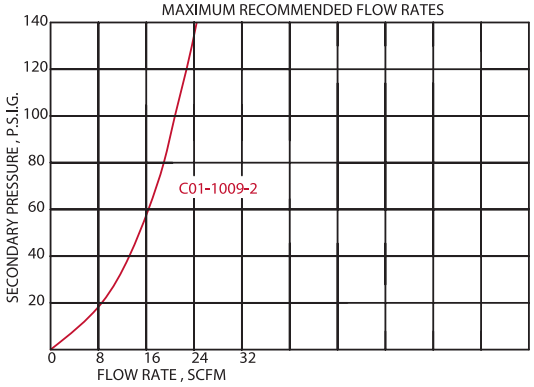
STANDARD AIR FILTER/REGULATOR
or
OIL COALESCING FILTER/REGULATOR

5 AND 8-OUNCE CAPACITY
POLYCARBONATE OR METAL BOWL
PIPE SIZE: 1/4, 3/8, OR 1/2"

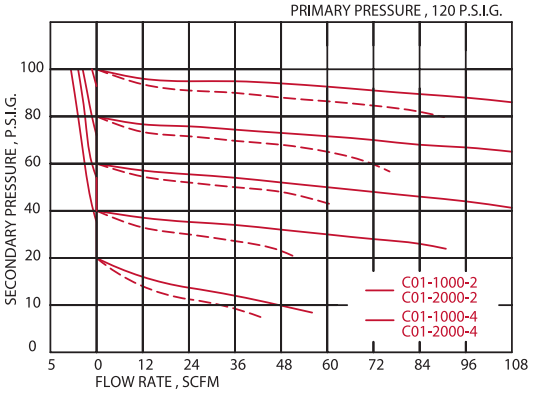


Pipe Size	POLYCARBONATE BOWL With Bowl Guard (21088)	POLYCARBONATE BOWL Without Bowl Guard	METAL BOWL With Sight Level (21538)	METAL BOWL Without Sight Level
8 oz	**WITH PARTICULATE FILTERS**			
1/4"	C01-1100-2	C01-1000-2	C01-1300-2	C01-1200-2
3/8"	C01-1100-3	C01-1000-3	C01-1300-3	C01-1200-3
1/2"	C01-1100-4	C01-1000-4	C01-1300-4	C01-1200-4
	ELEMENTS 3 Micron - #21037 (1002) 10 Micron - #21036 (1001) 20 Micron - #21205 (1000 STD)			
5 oz	**Bowl Guard (22089)**			
1/4"	C01-2100-2	C01-2000-2	C01-2300-2	C01-2200-2
3/8"	C01-2100-3	C01-2000-3	C01-2300-3	C01-2200-3
1/2"	C01-2100-4	C01-2000-4	C01-2300-4	C01-2200-4
	ELEMENTS 3 Micron - #22032 (2002) 10 Micron - #22033 (2001) 20 Micron - #22205 (2000 STD)			
8 oz	**WITH OIL-COALESCING FILTERS**			
	Bowl Guard (21088)			
1/4"	C01-1109-2	C01-1009-2	C01-1309-2	C01-1209-2
3/8"	C01-1109-3	C01-1009-3	C01-1309-3	C01-1209-3
1/2"	C01-1109-4	C01-1009-4	C01-1309-4	C01-1209-4
5 oz	**Bowl Guard (22089)**			
1/4"	C01-2109-2	C01-2009-2	C01-2309-2	C01-2209-2
3/8"	C01-2109-3	C01-2009-3	C01-2309-3	C01-2209-3
1/2"	C01-2109-4	C01-2009-4	C01-2309-4	C01-2209-4
	ELEMENTS .3 Micron - #21545			

COALESCING FILTER
MAXIMUM RECOMMENDED FLOW RATES



RELIEF AND FLOW CHARACTERISTICS

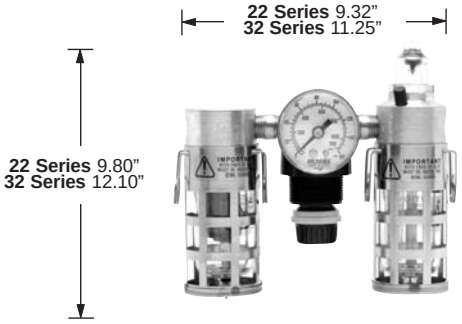


To order with mounting bracket, add suffix "**B**". To order with panel mounting, add suffix "**M**" - Mounting threads 1-5/8-12, panel hole size 1-3/4"

Filter/Regulator/Lubricator Combinations

MINIATURE

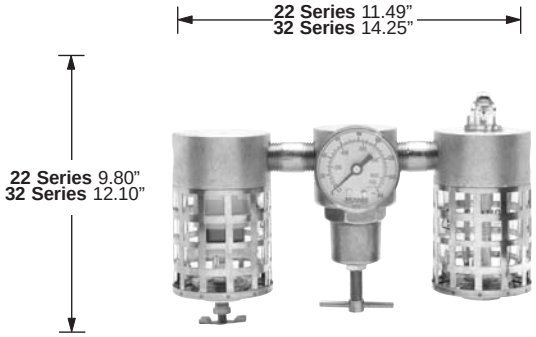
1-OUNCE CAPACITY



Pipe Size	POLYCARBONATE BOWL With Bowl Guard	Without Bowl Guard	METAL BOWL
	High-Flow		
1/8"	213-3100-1	213-3000-1	213-3200-1
1/4"	213-3100-2	213-3000-2	213-3200-2
	Low-Flow		
1/8"	213-3150-1	213-3050-1	213-3250-1
1/4"	213-3150-2	213-3050-2	213-3250-2

COMPACT

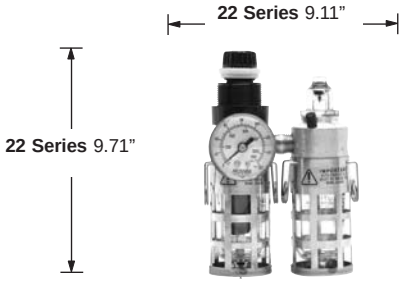
5-OUNCE CAPACITY



Pipe Size	POLYCARBONATE BOWL With Bowl Guard	Without Bowl Guard	METAL BOWL With Sight Level	Without Sight Level
1/4"	213-2100-2	213-2000-2	213-2300-2	213-2200-2
3/8"	213-2100-3	213-2000-3	213-2300-3	213-2200-3
1/2"	213-2100-4	213-2000-4	213-2300-4	213-2200-4

MINIATURE

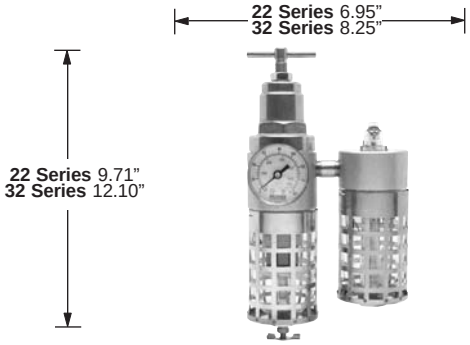
1-OUNCE CAPACITY



Pipe Size	POLYCARBONATE BOWL With Bowl Guard	Without Bowl Guard	METAL BOWL
	Polycarbonate Bonnet High-Flow		
1/8"	B3-3100-1	B3-3000-1	B3-3200-1
1/4"	B3-3100-2	B3-3000-2	B3-3200-2
	Metal Bonnet High-Flow		
1/8"	C3-3100-1	C3-3000-1	C3-3200-1
1/4"	C3-3100-2	C3-3000-2	C3-3200-2
	Polycarbonate Bonnet Low-Flow		
1/8"	B3-3150-1	B3-3050-1	B3-3250-1
1/4"	B3-3150-2	B3-3050-2	B3-3250-2
	Metal Bonnet Low-Flow		
1/8"	C3-3150-1	C3-3050-1	C3-3250-1
1/4"	C3-3150-2	C3-3050-2	C3-3250-2

COMPACT

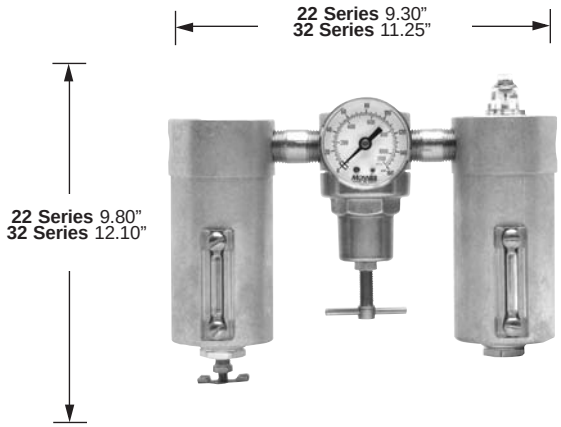
5-OUNCE AND
8-OUNCE CAPACITY



Pipe Size	POLYCARBONATE BOWL With Bowl Guard	Without Bowl Guard	METAL BOWL With Sight Level	Without Sight Level
		1/2-Pint		
1/4"	C3-1100-2	C3-1000-2	C3-1300-2	C3-1200-2
3/8"	C3-1100-3	C3-1000-3	C3-1300-3	C3-1200-3
1/2"	C3-1100-4	C3-1000-4	C3-1300-4	C3-1200-4
		1/3-Pint		
1/4"	C3-2100-2	C3-2000-2	C3-2300-2	C3-2200-2
3/8"	C3-2100-3	C3-2000-3	C3-2300-3	C3-2200-3
1/2"	C3-2100-4	C3-2000-4	C3-2300-4	C3-2200-4

STANDARD

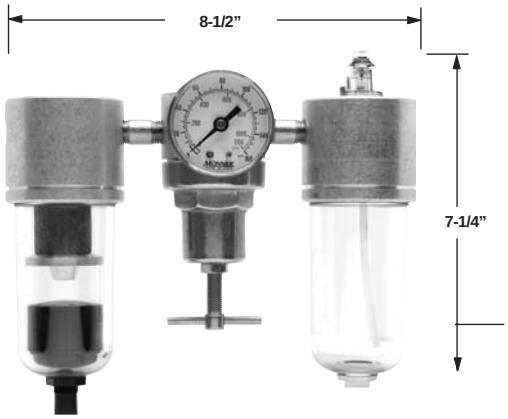
8-OUNCE CAPACITY



Pipe Size	POLYCARBONATE BOWL With Bowl Guard	POLYCARBONATE BOWL Without Bowl Guard	METAL BOWL With Sight Level	METAL BOWL Without Sight Level
1/4"	213-1100-2	213-1000-2	213-1300-2	213-1200-2
3/8"	213-1100-3	213-1000-3	213-1300-3	213-1200-3
1/2"	213-1100-4	213-1000-4	213-1300-4	213-1200-4

STANDARD THREADED BOWL

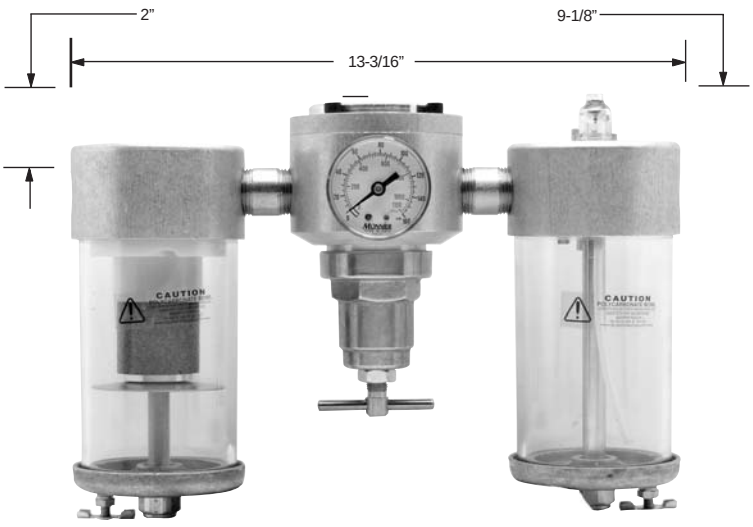
8-OUNCE CAPACITY



Pipe Size	POLYCARBONATE BOWL With Bowl Guard	POLYCARBONATE BOWL Without Bowl Guard	METAL BOWL With Sight Level	METAL BOWL Without Sight Level
1/4"	FRL-1100-2	FRL-1000-2	FRL-1300-2	FRL-1200-2
3/8"	FRL-1100-3	FRL-1000-3	FRL-1300-3	FRL-1200-3
1/2"	FRL-1100-4	FRL-1000-4	FRL-1300-4	FRL-1200-4

STANDARD

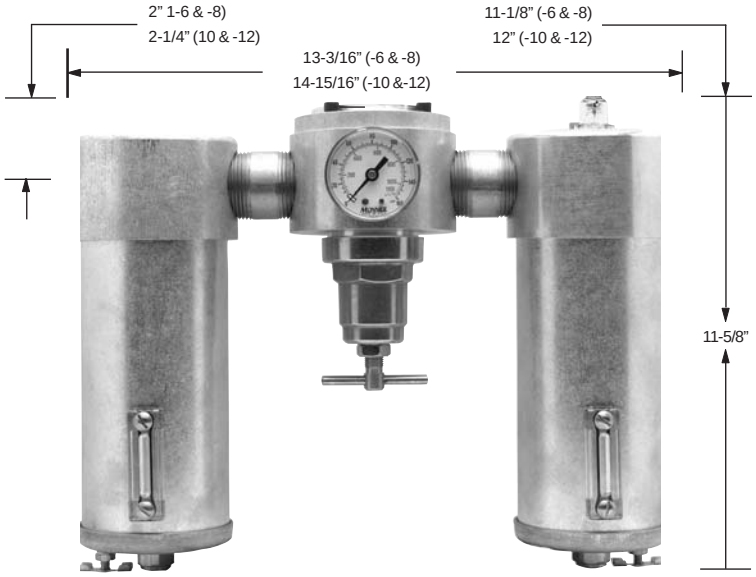
21-OUNCE CAPACITY



Pipe Size	POLYCARBONATE BOWL With Bowl Guard	POLYCARBONATE BOWL Without Bowl Guard	METAL BOWL With Sight Level	METAL BOWL Without Sight Level
3/4"	213-5100-6	213-5000-6	213-5300-6	213-5200-6
1"	213-5100-8	213-5000-8	213-5300-8	213-5200-8

HEAVY DUTY

32-OUNCE CAPACITY



Pipe Size	POLYCARBONATE BOWL With Bowl Guard	POLYCARBONATE BOWL Without Bowl Guard	METAL BOWL With Sight Level	METAL BOWL Without Sight Level
3/4"	213-4100-6	213-4000-6	213-4300-6	213-4200-6
1"	213-4100-8	213-4000-8	213-4300-8	213-4200-8
1-1/4"	213-4100-10	213-4000-10	213-4300-10	213-4200-10
1-1/2"	213-4100-12	213-4000-12	213-4300-12	213-4200-12

MONNIER

Air Line Modulars

Monnaire Modulars™ were created to meet the demands of today's air preparation market by **maximizing flow, reducing weight and minimizing price**. This new series of modular filters, regulators and lubricators compliments the over 3,000 standard products in the Monnier catalog and the thousands of custom units designed annually.

Each component is engineered to connect easily without the use of inserts and special tools. Standard button-head screws are used to join components, combined with the new modular design ensures that *Monnaire Modulars*™ offer optimum stability and strength.

Components are available as preassembled **modular FRL assemblies** or in an unlimited combination of filters, regulators, lubricators and accessories. Each component is available with 3 **bowl options** -- polycarbonate with guard (standard), metal bowl or with the CircleView bowl, allowing fluid to be viewed 360 degrees around the bowl. Each bowl is available with automatic, flexible or manual drain options.

A **manual shut off** with a deep slide design is available conforming to OSHA requirements. The off position relieves downstream pressure to all components allowing for service or repair.

Shipment can be made from stock so call your local Monnier distributor to place your order today .

Note: All Monnaire Modulars™ are available with **"G Tap"** (Europe).

Features

- O-ring on bowl
- Integral mounting holes
- Bayonet bowl guards
- Face plates for units
- One filter housing for particulate/coalescer
- Units individually threaded
- Diverter block
- Simple manifold connections

Benefits

- O-ring held captive
- Mounts without brackets
- Quick on/off bowls
- Unique identity – customer logo
- Less inventory – field change
- Each unit can stand alone
- Regulator mounts any direction
- Build any configuration

Advantages

- Works right every time
- Vendor does not make bracket
- Faster turns in maintenance
- Parts business for OEM's
- Faster response possible
- Adapts to any application
- Flexible assembly
- Eliminates frustration

MAXIMUM PRESSURE

Pressure in polycarbonate bowls:	150 psi
Pressure in metal bowls:	200 psi
Pressure in circle view bowls:	250 psi

MAXIMUM TEMPERATURE

Temperature in polycarbonate bowls:	120°F
Temperature in metal bowls:	120°F
Temperature in circle view bowls:	150°F

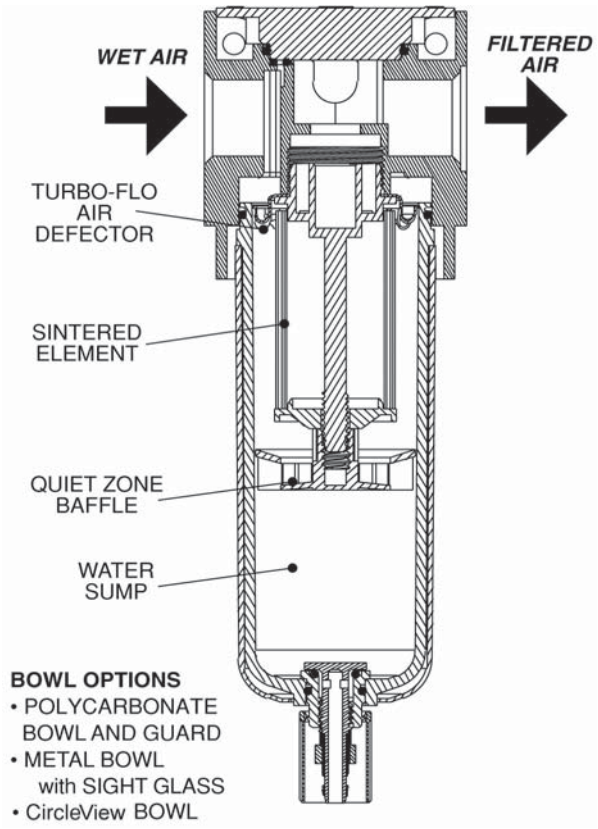
WARNING

Polycarbonate bowls can be damaged and may fail if they are exposed to or come in contact with solvents, strong alkalies, fire resistant and/or synthetic compressor lubricants.

DRAINS

Add Suffix "D" for impulse drain or Suffix "F" for float drain.

Monnaire Modular™ Filters



Application

Primary air filters are designed to separate liquid water and rust, scale and debris from the air lines. They should be installed upstream of the regulator or lubricator to prevent contamination from reaching other components.

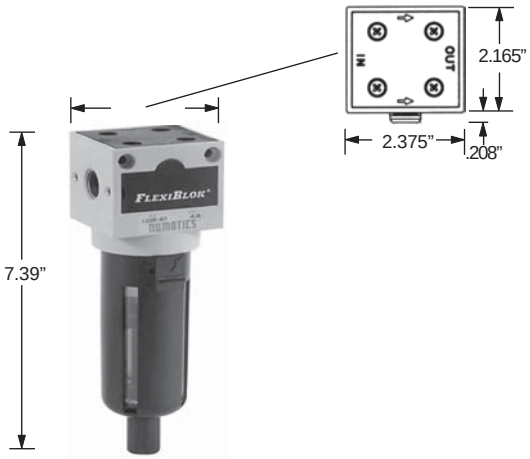
Water is removed mechanically by the deflector which causes the air to move in a swirling motion. The condensed water droplets are then centrifugally impounded upon the I.D. of the bowl and migrate down past the quiet zone baffle to the water sump. Dry air passes through the sintered element utilizing depth filtration and removes debris down to the specified micron size.

Features

- Two convenient sizes
- 5 micron sintered elements standard
- Can be installed as modular or individual unit
- Includes screws and o-rings for modular connection
- Manual or automatic drains
- Polycarbonate bowl standard
- Optional CircleView sight bowl
- Bowl seal held captive

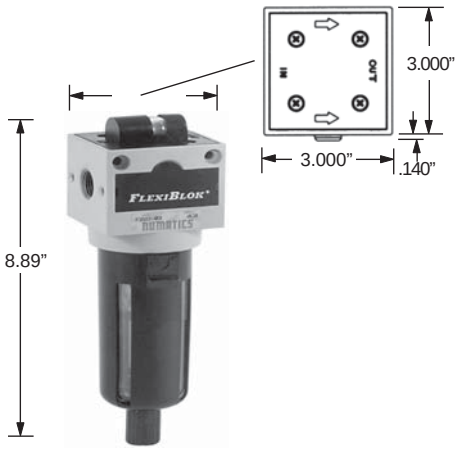
22 SERIES FILTERS

3.8-OUNCE CAPACITY
PIPE SIZE: 1/4, 3/8, 1/2"



32 SERIES FILTERS

8.5-OUNCE CAPACITY
PIPE SIZE: 1/2, 3/4"

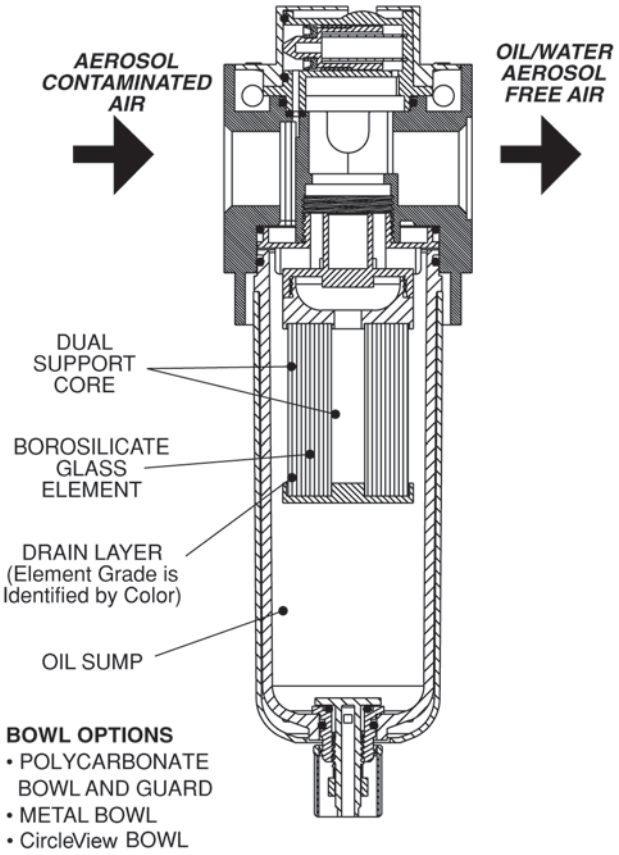


PIPE SIZE	BOWL TYPE AND MODEL NO.			FLOW CAPACITY SCFM	
	POLYCARBONATE W/ BOWL GUARD	METAL	CIRCLEVIEW		
1/4"	222-2100-2	222-2300-2	222-2000-2	C_V = 1.9	45
3/8"	222-2100-3	222-2300-3	222-2000-3	C_V = 2.6	60
1/2"	222-2100-4	222-2300-4	222-2000-4	C_V = 3.0	70

PIPE SIZE	BOWL TYPE AND MODEL NO.			FLOW CAPACITY SCFM	
	POLYCARBONATE W/ BOWL GUARD	METAL	CIRCLEVIEW		
1/2"	232-1100-4	232-1300-4	232-1000-4	C_V = 4.5	105
3/4"	232-1100-6	232-1300-6	232-1000-6	C_V = 4.7	110

Note: Flow ratings based on 100 PSIG Inlet and 5 PSID.

Monnaire Modular™ Coalescing Filters



Features

- Two convenient sizes
- Cartridge element design
- Inner/outer support cores prevent element from crushing in either flow direction
- Available with manual or automatic drain
- Optional CircleView sight bowl
- Differential pressure indicator standard

Application

The coalescing filter is utilized when either clean air is required or longer component life is desired. This type of filter removes water and oil aerosols. Working differently than the particulate filter; oily air enters the element from its center and passes though a field of glass fibers which cause the aerosols to form into heavier-than-air droplets. The droplets grow larger as they pass through the element and gravity drains the oil drops to the sump of the bowl. With the harmful oil varnishes and contaminants that attack seals and gaskets now removed, the valve and cylinder is much less likely to stick. To maximize the life of a coalescing filter it should always be used after a 5 micron filter or with the optional prefilter.

Recommended Uses

0.7 Micron Element, identified by its BLUE drain layer, is a coarse filter for large amounts of water, rust, pipe scale and hydrocarbons. Excellent filter for environments that have severe contamination. Can be used for lubricated or "dry" systems. Mainline filtration of plant air.

0.3 Micron Element, identified by its GREEN drain layer, is a fine filter for cylinders or valves especially when the circuit is being run without lubrication ("dry"). Excellent filters for desiccant or regenerative style filters.

0.1 Micron Element, identified by its RED drain layer, is an ultrafine filter for oil free instrumentation air, blow molding, food and drug packaging, electronics applications, and other applications requiring maximum contamination removal.

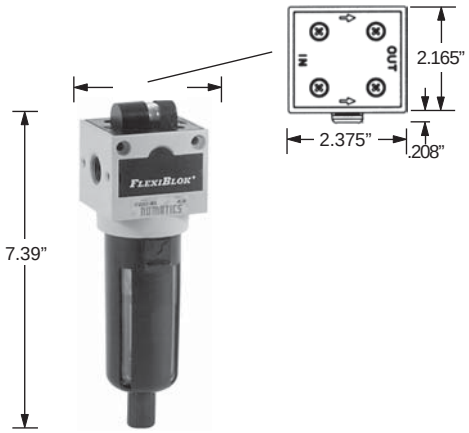
Adsorber Element, identified by its WHITE drain layer, is an adsorbing filter that utilizes activated carbon to deodorize compressed air. Typically, it is used to protect worker environments, food and drug applications and instrumentation for analytical instruments. Life expectancy is approximately 3 months at rated flow.

Prefilter Option - Suffix "E"

All models can be equipped with an optional internal prefilter. The prefilter provides additional protection for the fine borosilicate fibers. For most applications, a separate 3 micron particulate filter is not required.

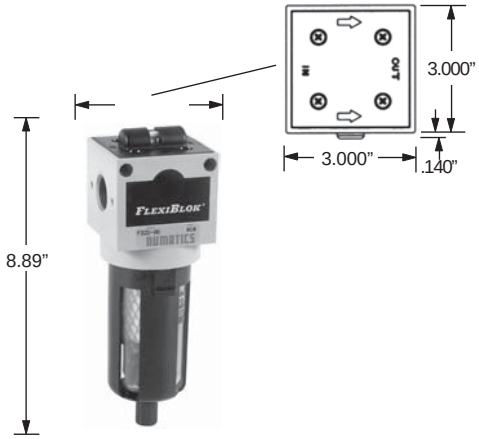
22 SERIES COALESCER

3.8-OUNCE CAPACITY
PIPE SIZE: 1/4, 3/8, 1/2”



32 SERIES COALESCER

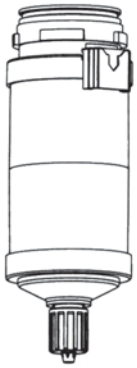
8.5-OUNCE CAPACITY
PIPE SIZE: 1/2, 3/4”



PIPE SIZE	ELEMENT RATING: BOWL TYPE AND MODEL NO.			FLOW CAPACITY	SCFM
	POLYCARBONATE W/ BOWL GUARD	METAL	CIRCLEVIEW		
	0.7 MICRON				
1/4"	222-2107-2	222-2307-2	222-2007-2	C_V = 2.0	25
3/8"	222-2107-3	222-2307-3	222-2007-3		
1/2"	222-2107-4	222-2307-4	222-2007-4		
	0.3 MICRON				
1/4"	222-2103-2	222-2303-2	222-2003-2	C_V = 1.2	15
3/8"	222-2103-3	222-2303-3	222-2003-3		
1/2"	222-2103-4	222-2303-4	222-2003-4		
	0.1 MICRON				
1/4"	222-2101-2	222-2301-2	222-2001-2	C_V = 0.7	9
3/8"	222-2101-3	222-2301-3	222-2001-3		
1/2"	222-2101-4	222-2301-4	222-2001-4		
	VAPOR ADSORBER				
1/4"	222-210A-2	222-230A-2	222-200A-2	C_V = —	—
3/8"	222-210A-3	222-230A-3	222-200A-3		
1/2"	222-210A-4	222-230A-4	222-200A-4		

PIPE SIZE	ELEMENT RATING: BOWL TYPE AND MODEL NO.			FLOW CAPACITY	SCFM
	POLYCARBONATE W/ BOWL GUARD	METAL	CIRCLEVIEW		
	0.7 MICRON				
1/2"	232-1107-4	232-1307-4	232-1007-4	C_V =5.3	70
3/4"	232-1107-6	232-1307-6	232-1007-6		
	0.3 MICRON				
1/2"	232-1103-4	232-1303-4	232-1003-4	C_V = 3.7	48
3/4"	232-1103-6	232-1303-6	232-1003-6		
	0.1 MICRON				
1/2"	232-1101-4	232-1301-4	232-1001-4	C_V =2.0	25
3/4"	232-1101-6	232-1301-6	232-1001-6		
	VAPOR ADSORBER				
1/2"	232-110A-4	232-130A-4	232-100A-4	C_V = —	45
3/4"	232-110A-6	232-130A-6	232-100A-6		

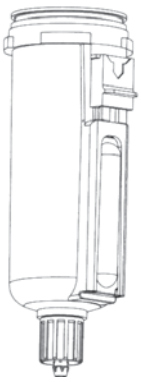
- Flow Ratings based upon 100 PSIG inlet and 1.5 PSID.
- .3 Micron element standard



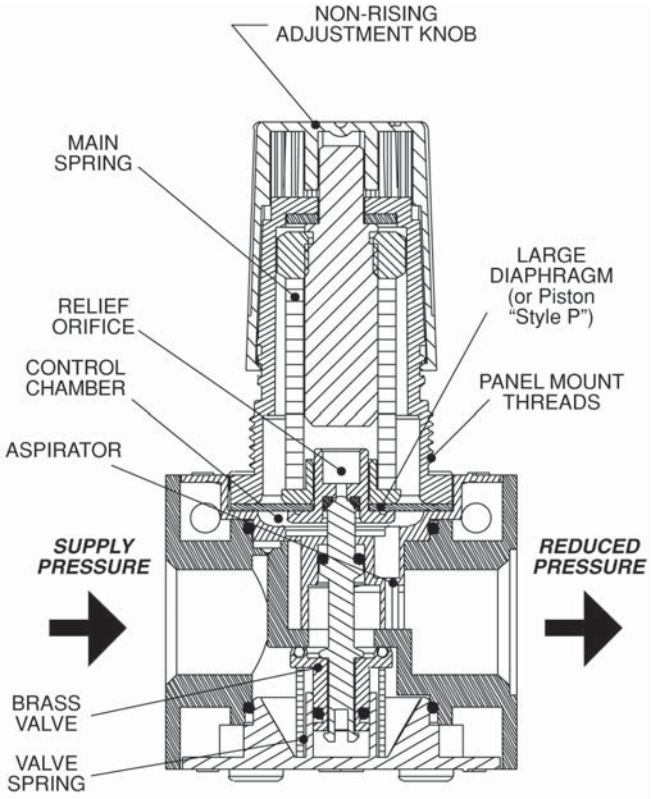
CircleView Sight Bowl

The Monnaire Modular™ CircleView Sight Bowl utilizes a dual bowl configuration to eliminate the bowl guard or sight glass. This allows the strength and security of an interior metal bowl to be used with the exterior convenience of polycarbonate. Water condensation and contaminants in filter bowls and the oil level in the lubricator bowls can be seen for 360 degrees around the unit. This lowers maintenance cost by allowing easy detection of units that require service.

Metal Bowl with Sight Glass



Monnaire Modular™ Regulators



Features

- Two convenient sizes
- High flow in compact size
- Locking adjustment knob
- Four different pressure ratings available
- Can be installed as modular or individual unit
- Standard output pressure 0-125 PSIG

Internal Check Valve

The 22 and 32 Series are offered with an optional internal check valve. This allows the regulator to function between a valve and cylinder and not be damaged by the constant change in direction of flow. Excellent for applications where multiple pressures are required from one supply valve.

Piston Operator

The 22 and 32 series are offered with an optional Piston Operator. A Piston regulator will achieve extremely high cycle rates with limited wear. It is standard on the Internal Check Regulator.

Application

Regulators are used to reduce pressure to a required working pressure. Utilizing optimum pressure can save companies both component life and many dollars in compressed air costs.

Regulators consist of a diaphragm, which floats between a main spring (top) and a valve (bottom). By turning the adjustment handle clockwise, the main spring is forced onto the rubber diaphragm which, in turn, is pressed onto the valve stem. When the spring pressure becomes greater that the air pressure in the control chamber below the diaphragm, the valve is forced down and flow begins. As flow continues, the pressure begins to build up and air, via the aspirator tube, fills the control chamber and forces the diaphragm upward. As forces balance, the small spring under the valve piston causes the valve to close. The cycle continues in a balanced process of reducing or increasing flow based upon the down stream pressure.

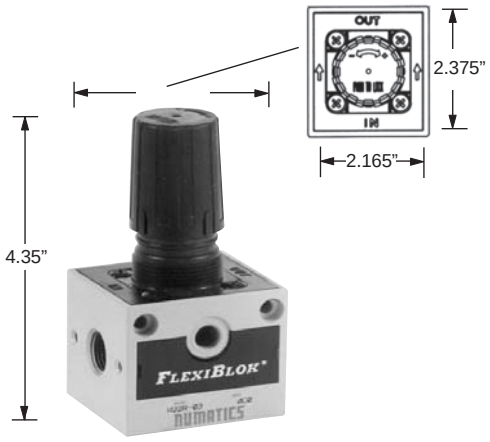
MAXIMUM PRIMARY PRESSURE: 200 psi

MAXIMUM OPERATING TEMPERATURE: 120°F

- To order with a gauge, add Suffix "G"
- To order with panel nut, add Suffix "P"
- To order with check valve, add "C" after the 3rd digit
- To order with piston, add "P" after the 3rd digit
- To order with tamperproof option, add suffix "T"

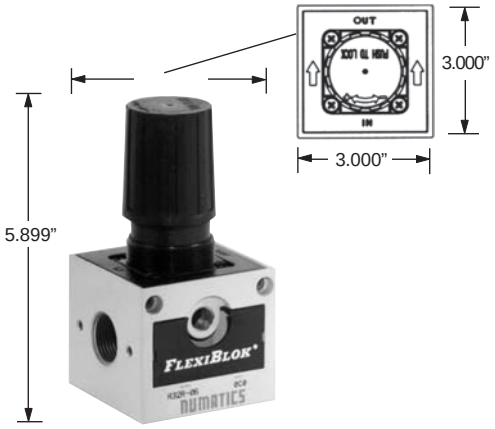
22 SERIES REGULATOR

PIPE SIZE: 1/4, 3/8, 1/2”



32 SERIES REGULATOR

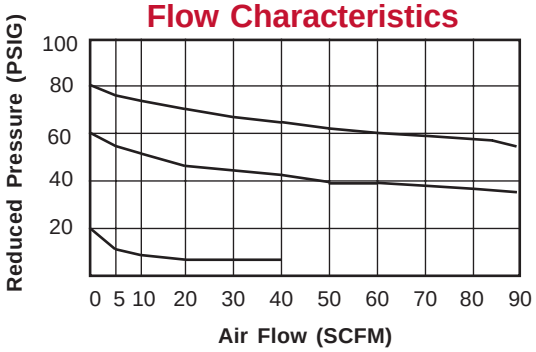
PIPE SIZE: 1/2, 3/4”



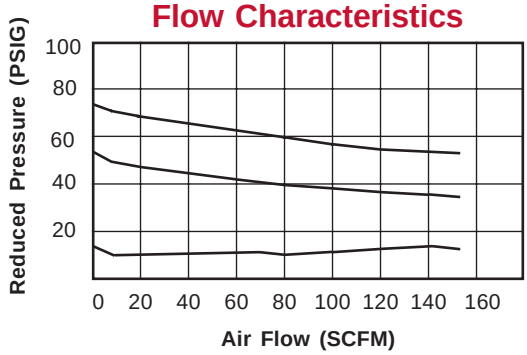
PIPE SIZE	MODEL NO.		GAUGE PRESSURE RANGE (PSIG)
	RELIEVING	NON-RELIEVING	
1/4"	122-2000-2	122-2001-2	0-125
3/8"	122-2000-3	122-2001-3	
1/2"	122-2000-4	122-2001-4	
1/4"	122-2002-2	122-2003-2	0-60
3/8"	122-2002-3	122-2003-3	
1/2"	122-2002-4	122-2003-4	
1/4"	122-2004-2	122-2005-2	0-25
3/8"	122-2004-3	122-2005-3	
1/2"	122-2004-4	122-2005-4	

PIPE SIZE	MODEL NO.		GAUGE PRESSURE RANGE (PSIG)
	RELIEVING	NON-RELIEVING	
1/2"	132-1000-4	132-1001-4	0-125
3/4"	132-1000-6	132-1001-6	
1/2"	132-1002-4	132-1003-4	0-60
3/4"	132-1002-6	132-1003-6	
1/2"	132-1004-4	132-1005-4	0-25
3/4"	132-1004-6	132-1005-6	
1/2"	132-1006-4	132-1007-4	0-200
3/4"	132-1006-6	132-1007-6	

Flow Characteristics



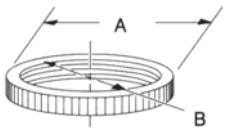
Flow Characteristics



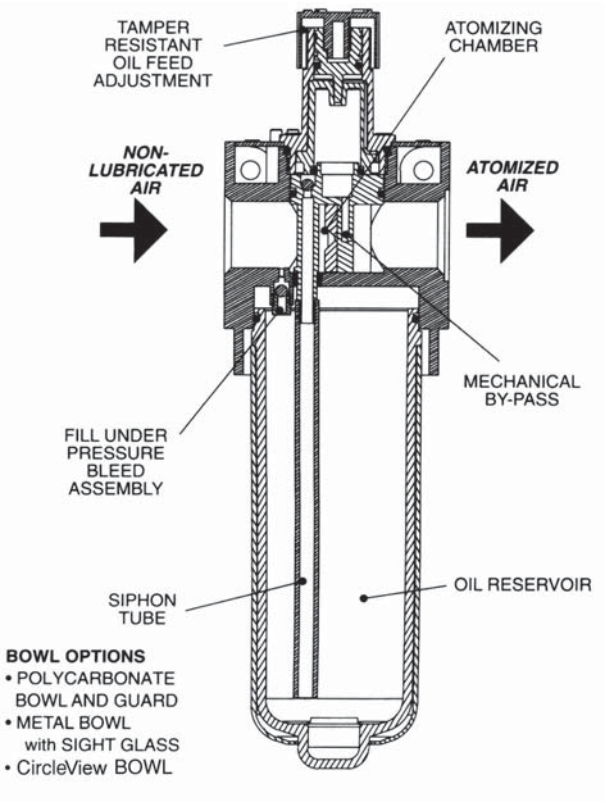
■ Flows are at 100 PSIG and a 25% PSID.

PANEL MOUNT NUT

Series	Model Dia.	Hole	A	B
22	PN-22	1.31”	1.50”	1-1/4-16
32	PN-32	1.77”	2.05”	1-3/4-16



Monnaire Modular™ Lubricators



Application

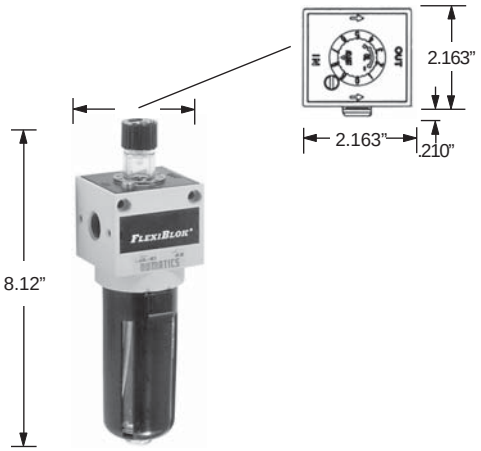
Usually mounted third in the F-R-L series, the lubricator is designed to inject oil aerosols into the air stream of a pneumatic circuit. As air flows from the regulator, some air is divided from the main orifice and is allowed to flow through the fill under pressure bleed assembly and pressurizes the bowl. This forces oil up in the siphon tube past a flow check and into the integral valve/sight dome. The oil film then drops through the valve and into the atomization chamber at a rate that is automatically proportional to the airflow. This virtually eliminates the need for readjustment. The Monnaire Modulars™ lubricator can begin delivering lubrication at flows less than 2 SCFM.

Features

- Two convenient sizes
- Lubrication to begin at less than 2 SCFM
- Fillable under pressure
- Tamper-resistant knob standard
- Available with CircleView sight bowl
- Can be mounted as a modular or individual unit
- Button Head Fill option on both sizes
- Atomizing chamber develops longer life aerosols

22 SERIES LUBRICATOR

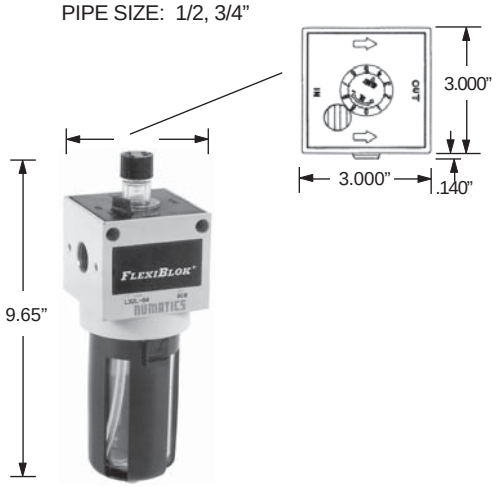
3.8-OUNCE CAPACITY
PIPE SIZE: 1/4, 3/8, 1/2"



PIPE SIZE	BOWL TYPE AND MODEL NO.			FLOW CAPACITY SCFM	
	POLYCARBONATE W/ BOWL GUARD	METAL	CIRCLEVIEW		
1/4"	322-2100-2	322-2300-2	322-2000-2	C_V = 1.9	40
3/8"	322-2100-3	322-2300-3	322-2000-3	C_V = 3.0	70
1/2"	322-2100-4	322-2300-4	322-2000-4	C_V = 4.4	100

32 SERIES LUBRICATOR

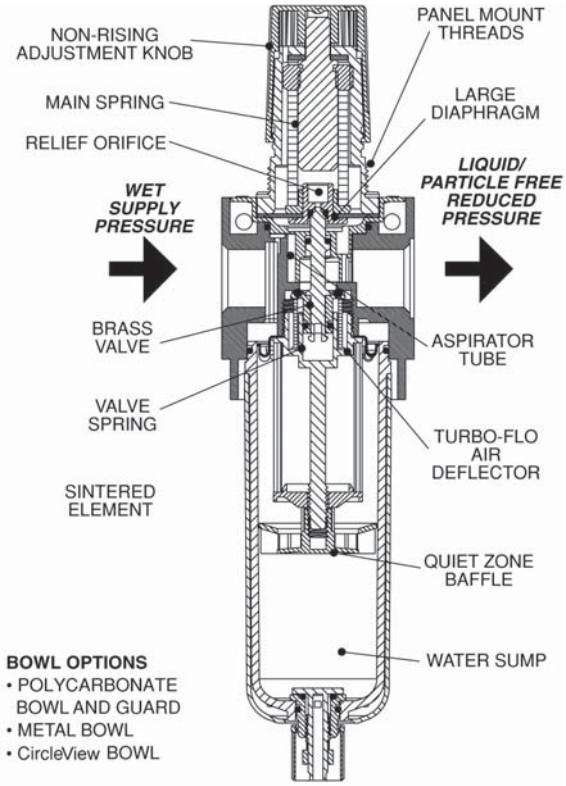
8.5-OUNCE CAPACITY
PIPE SIZE: 1/2, 3/4"



PIPE SIZE	BOWL TYPE AND MODEL NO.			FLOW CAPACITY SCFM	
	POLYCARBONATE W/ BOWL GUARD	METAL	CIRCLEVIEW		
1/2"	332-1100-4	332-1300-4	332-1000-4	C_V = 4.7	110
3/4"	332-1100-6	332-1300-6	332-1000-6	C_V = 7.3	150

- To order with a manual drain, add suffix **"K"**.
- To order with a Quick Fill Button Head, add suffix **"Q"**.

Monnaire Modular™ Integral Filter/Regulators



Application

The integral filter/regulator (piggyback) is a two-station component designed to filter and regulate compressed air when cost and space are a primary concern. As dirty, wet air enters, it immediately flows through the air deflector causing the air to move in a swirling motion. After condensed water is centrifugally removed, air passes through the filter and into the regulator. The high-pressure air is systematically reduced via the adjustment spring and valve and exits the housing as clean and dry air that is ready to work at the specified pressure.

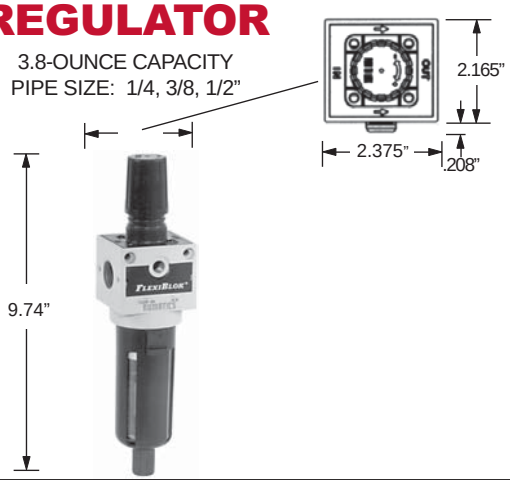
Note: See separate Monnaire Modular™ Filter and Regulator sections for additional information .

Features

- Two convenient sizes
- 5 micron sintered elements standard
- Can be installed as modular or individual unit
- Non-rising knob
- Standard output pressure 0-125 PSIG
- Bowl seals held captive

22 SERIES FILTER/ REGULATOR

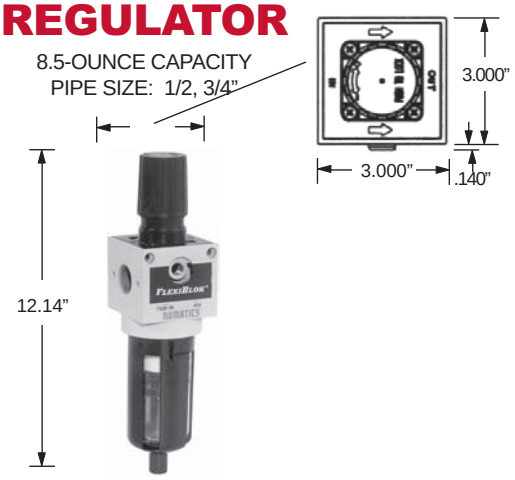
3.8-OUNCE CAPACITY
PIPE SIZE: 1/4, 3/8, 1/2"



PIPE SIZE	BOWL TYPE AND MODEL NO.			SCFM AT REDUCED PRESSURE OF		
	POLYCARBONATE W/ BOWL GUARD	METAL	CIRCLEVIEW	25 PSIG	60 PSIG	80 PSIG
1/4"	FR22-2100-2	FR22-2300-2	FR22-2000-2	40	50	65
3/8"	FR22-2100-3	FR22-2300-3	FR22-2000-3	60	70	75
1/2"	FR22-2100-4	FR22-2300-4	FR22-2000-4	60	70	75

32 SERIES FILTER/ REGULATOR

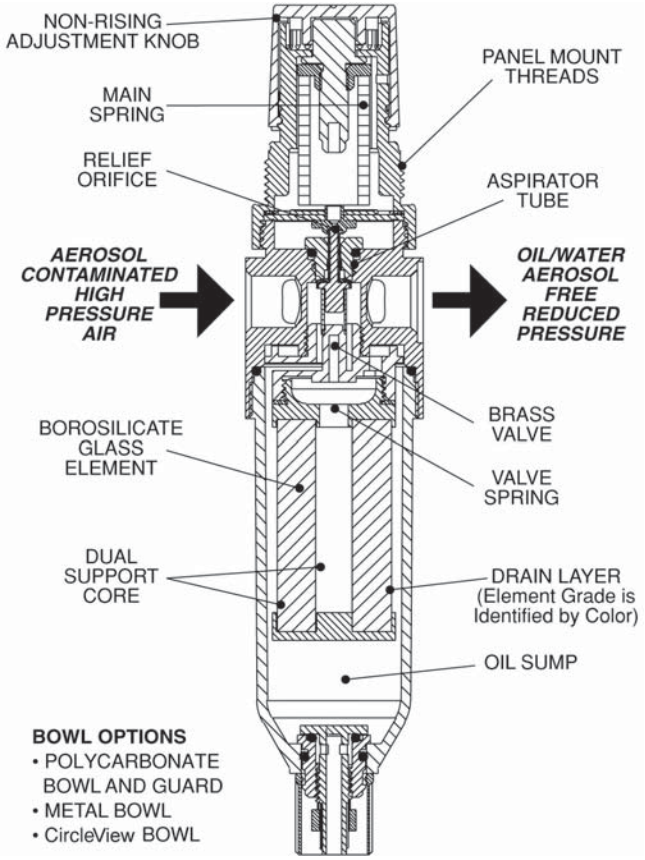
8.5-OUNCE CAPACITY
PIPE SIZE: 1/2, 3/4"



PIPE SIZE	BOWL TYPE AND MODEL NO.			SCFM AT REDUCED PRESSURE OF		
	POLYCARBONATE W/ BOWL GUARD	METAL	CIRCLEVIEW	25 PSIG	60 PSIG	80 PSIG
1/2"	FR32-1100-4	FR32-1300-4	FR32-1000-4	100	115	130
3/4"	FR32-1100-6	FR32-1300-6	FR32-1000-6	100	115	130

- See Monnaire Modular™ Regulators for **"Flow Characteristics"**.
- Flows are at 100 PSIG and a 25% PSID.

Monnaire Modular™ Coalescer/Regulators



Element Performance Data

Performance of any coalescing filter is in relationship to the velocity of the air passing through (inside to outside) the element.

Since velocity and ΔP are directly proportional (the higher the ΔP the higher the velocity). We must size filters according to the flow at the optimum ΔP rather than at maximum velocity to atmosphere. Tests indicate the most effective ΔP for removing aerosols and contaminants from an airline is 1.5 PSI or less. This indicates that the filters are capable of flowing much more air than is recommended for maximum contamination removal.

In the individual Monnaire Modular™ filter sections of the catalog, we have included the C_V ratings on all our coalescing filters. This allows an exact determination of flow based upon known parameters.

Application

Monnier's Monnaire Modular™ Coalescer/Regulator is a two-station point of use air preparation system designed to provide superior filtration and regulation in one compact housing.

Available with four different element choices, the Coalescer/Regulator can be specified to attack and remove the exact type of contamination that is critical to the specific application.

Features

- Cartridge element design
- Inner and outer support cores prevent element from crushing in either flow direction
- Connects to modular design
- Four element grades available

Recommended Uses

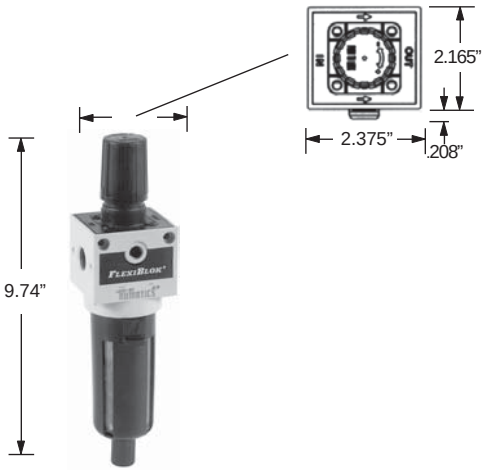
0.7 Micron Element, identified by its BLUE drain layer, is a coarse filter for large amounts of water, rust, pipe scale and hydrocarbons. Excellent filter for environments that have severe contamination. Can be used for lubricated or "dry" systems. Mainline filtration of plant air.
0.3 Micron Element, identified by its GREEN drain layer, is a fine filter for cylinders or valves especially when the circuit is being run without lubrication ("dry"). Excellent filters for desiccant or regenerative style filters.
0.1 Micron Element, identified by its RED drain layer, is an ultrafine filter for oil free instrumentation air, blow molding, food and drug packaging, electronics applications, and other applications requiring maximum contamination removal.
Adsorber Element, identified by its WHITE drain layer, is an adsorbing filter that utilizes activated carbon to deodorize compressed air. Typically, it is used to protect worker environments, food and drug applications and instrumentation for analytical instru-ments. Life expectancy is approximately 3 months at rated flow.

Prefilter Option - Suffix "E"

All models can be equipped with an optional internal prefilter. The prefilter provides additional protection for the fine borosilicate fibers. For most applications, a separate 3 micron particulate filter is not required.

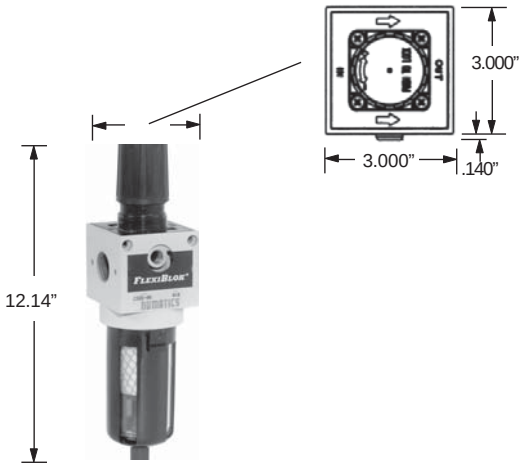
22 SERIES COALESCER/ REGULATOR

3.8-OUNCE CAPACITY
PIPE SIZE: 1/4, 3/8, 1/2”



32 SERIES COALESCER/ REGULATOR

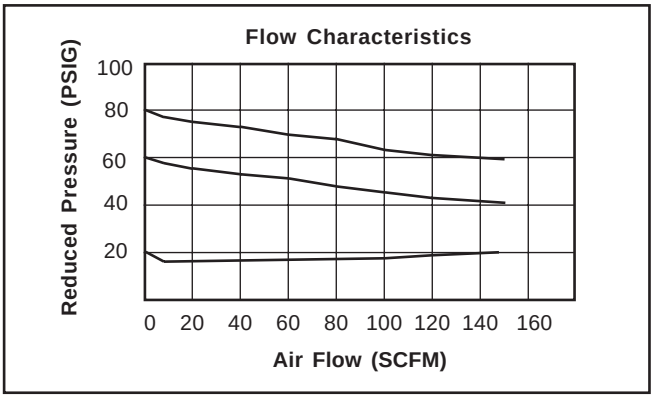
8.5-OUNCE CAPACITY
PIPE SIZE: 1/2, 3/4”

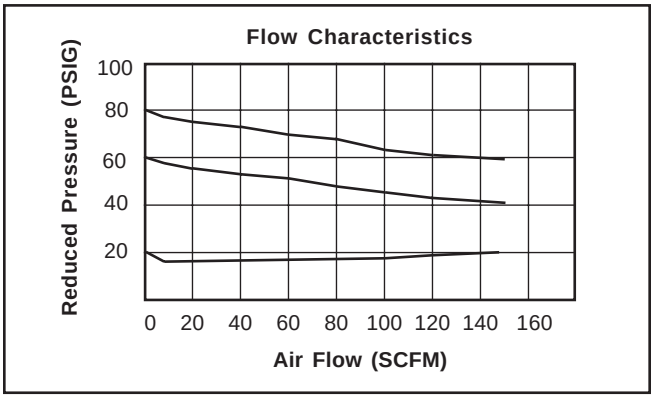


PIPE SIZE	ELEMENT RATING: BOWL TYPE AND MODEL NO.			SCFM AT 100 PSIG INLET & 1.5 PSID ACROSS THE ELEMENT		
	0.7 MICRON POLYCARBONATE W/ BOWL GUARD	METAL	CIRCLEVIEW	25	60	100
1/4"	FR22-2107-2	FR22-2307-2	FR22-2007-2	20	26	34
3/8"	FR22-2107-3	FR22-2307-3	FR22-2007-3			
1/2"	FR22-2107-4	FR22-2307-4	FR22-2007-4			
	0.3 MICRON POLYCARBONATE W/ BOWL GUARD	METAL	CIRCLEVIEW			
1/4"	FR22-2103-2	FR22-2303-2	FR22-2003-2	8	11	15
3/8"	FR22-2103-3	FR22-2303-3	FR22-2003-3			
1/2"	FR22-2103-4	FR22-2303-4	FR22-2003-4			
	0.1 MICRON POLYCARBONATE W/ BOWL GUARD	METAL	CIRCLEVIEW			
1/4"	FR22-2101-2	FR22-2301-2	FR22-2001-2	3	5	6
3/8"	FR22-2101-3	FR22-2301-3	FR22-2001-3			
1/2"	FR22-2101-4	FR22-2301-4	FR22-2001-4			
	VAPOR ADSORBER POLYCARBONATE W/ BOWL GUARD	METAL	CIRCLEVIEW			
1/4"	FR22-210A-2	FR22-230A-2	FR22-200A-2	8	11	15
3/8"	FR22-210A-3	FR22-230A-3	FR22-200A-3			
1/2"	FR22-210A-4	FR22-230A-4	FR22-200A-4			

PIPE SIZE	ELEMENT RATING: BOWL TYPE AND MODEL NO.			SCFM AT 100 PSIG INLET & 1.5 PSID ACROSS THE ELEMENT		
	0.7 MICRON POLYCARBONATE W/ BOWL GUARD	METAL	CIRCLEVIEW	25	60	100
1/2"	FR32-1107-4	FR32-1307-4	FR32-1007-4	45	70	90
3/4"	FR32-1107-6	FR32-1307-6	FR32-1007-6			
	0.3 MICRON POLYCARBONATE W/ BOWL GUARD	METAL	CIRCLEVIEW			
1/2"	FR32-1103-4	FR32-1303-4	FR32-1003-4	28	40	55
3/4"	FR32-1103-6	FR32-1303-6	FR32-1003-6			
	0.1 MICRON POLYCARBONATE W/ BOWL GUARD	METAL	CIRCLEVIEW			
1/2"	FR32-1101-4	FR32-1301-4	FR32-1001-4	15	24	28
3/4"	FR32-1101-6	FR32-1301-6	FR32-1001-6			
	VAPOR ADSORBER POLYCARBONATE W/ BOWL GUARD	METAL	CIRCLEVIEW			
1/2"	FR32-110A-4	FR32-130A-4	FR32-100A-4	28	40	55
3/4"	FR32-110A-6	FR32-130A-6	FR32-100A-6			

Note: To order with prefilter, add suffix **“E”**.





ASSEMBLY OPTIONS

Model Code Example

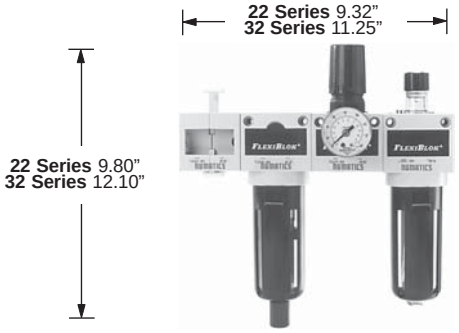
A22-VFRL-2

C	=	Coalescer/Regulator Piggyback
D	=	Diverter Block
E	=	Diverter Plate
F	=	Filter
FF	=	Particulate & Coalescing Filters
L	=	Lubricators
P	=	Filter/Regulator Piggyback
R	=	Regulator
V	=	Shutoff Valve

Suffixes

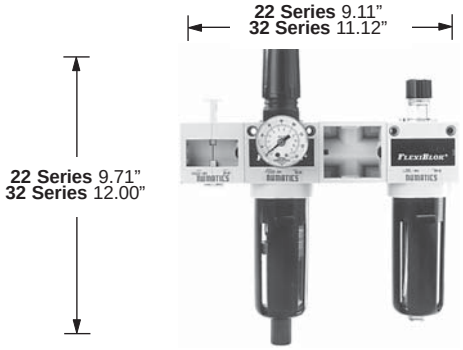
Description		Suffix
Impulse Drain	=	**D**
Automatic Float Drain	=	**F**
Metal Bowl	=	**M**
CircleView Bowl	=	**C**

SHUT OFF-FILTER-REGULATOR-LUBRICATOR WITH GAUGE



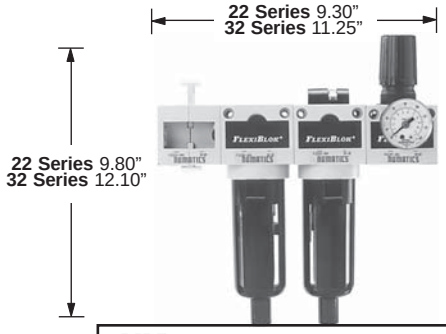
PIPE SIZE	MODEL NO.	
	22 SERIES	
	W/ SHUTOFF	**W/O SHUTOFF**
1/4"	A22-VFRL-2	A22-FRL-2
3/8"	A22-VFRL-3	A22-FRL-3
1/2"	A22-VFRL-4	A22-FRL-4
	32 SERIES	
1/2"	A32-VFRL-4	A32-FRL-4
3/4"	A32-VFRL-6	A32-FRL-6

SHUT OFF-FILTER/REGULATOR-DIVERTER BLOCK-LUBRICATOR WITH GAUGE



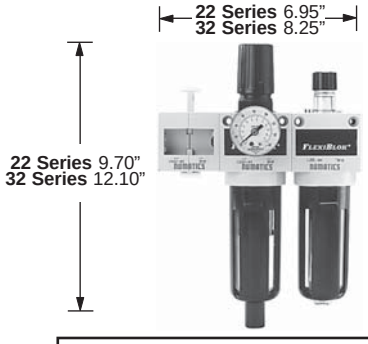
PIPE SIZE	MODEL NO.	
	22 SERIES	
	W/ SHUTOFF	**W/O SHUTOFF**
1/4"	A22-VPDL-2	A22-PDL-2
3/8"	A22-VPDL-3	A22-PDL-3
1/2"	A22-VPDL-4	A22-PDL-4
	32 SERIES	
1/2"	A32-VPDL-4	A32-PDL-4
3/4"	A32-VPDL-6	A32-PDL-6

SHUT OFF-FILTER-COALESCING FILTER-REGULATOR WITH GAUGE



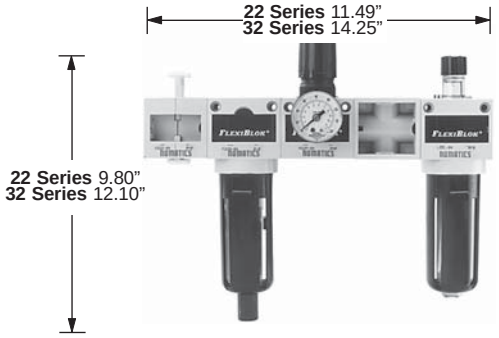
PIPE SIZE	MODEL NO.	
	22 SERIES	
	W/ SHUTOFF	**W/O SHUTOFF**
1/4"	A22-VFFR-2	A22-FFR-2
3/8"	A22-VFFR-3	A22-FFR-3
1/2"	A22-VFFR-4	A22-FFR-4
	32 SERIES	
1/2"	A32-VFFR-4	A32-FFR-4
3/4"	A32-VFFR-6	A32-FFR-6

SHUT OFF-COALESCER/REGULATOR-LUBRICATOR WITH GAUGE



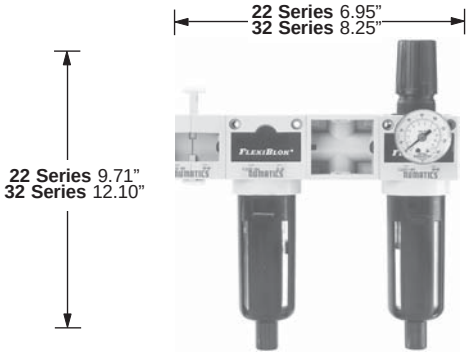
PIPE SIZE	MODEL NO.	
	22 SERIES	
	W/ SHUTOFF	**W/O SHUTOFF**
1/4"	A22-VCL-2	A22-CL-2
3/8"	A22-VCL-3	A22-CL-3
1/2"	A22-VCL-4	A22-CL-4
	32 SERIES	
1/2"	A32-VCL-4	A32-CL-4
3/4"	A32-VCL-6	A32-CL-6

SHUT OFF-FILTER-REGULATOR-DIVERTER BLOCK-LUBRICATOR WITH GAUGE



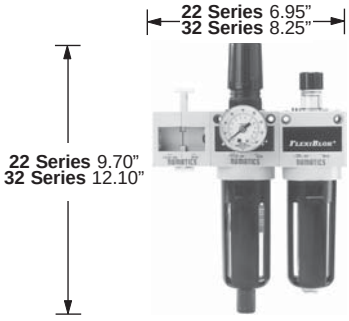
PIPE SIZE	MODEL NO.	
	22 SERIES	
	W/ SHUTOFF	W/O SHUTOFF
1/4"	A22-VFRDL-2	A22-FRDL-2
3/8"	A22-VFRDL-3	A22-FRDL-3
1/2"	A22-VFRDL-4	A22-FRDL-4
	32 SERIES	
1/2"	A32-VFRDL-4	A32-FRDL-4
3/4"	A32-VFRDL-6	A32-FRDL-6

SHUT OFF-FILTER-DIVERTER BLOCK-COALESCER/REGULATOR WITH GAUGE



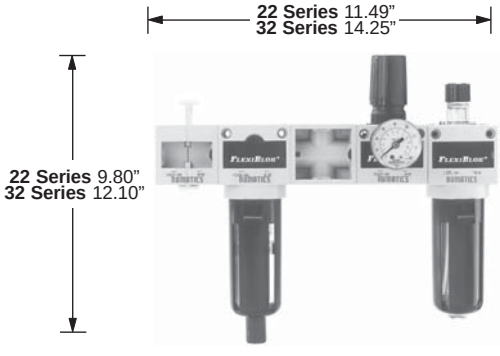
PIPE SIZE	MODEL NO.	
	22 SERIES	
	W/ SHUTOFF	W/O SHUTOFF
1/4"	A22-VFDC-2	A22-FDC-2
3/8"	A22-VFDC-3	A22-FDC-3
1/2"	A22-VFDC-4	A22-FDC-4
	32 SERIES	
1/2"	A32-VFDC-4	A32-FDC-4
3/4"	A32-VFDC-6	A32-FDC-6

SHUT OFF-FILTER/ REGULATOR-LUBRICATOR WITH GAUGE



PIPE SIZE	MODEL NO.	
	22 SERIES	
	W/ SHUTOFF	W/O SHUTOFF
1/4"	A22-VPL-2	A22-PL-2
3/8"	A22-VPL-3	A22-PL-3
1/2"	A22-VPL-4	A22-PL-4
	32 SERIES	
1/2"	A32-VPL-4	A32-PL-4
3/4"	A32-VPL-6	A32-PL-6

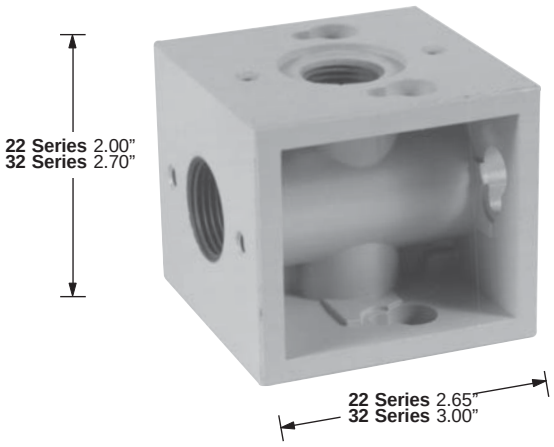
SHUT OFF-FILTER-DIVERTER BLOCK-REGULATOR-LUBRICATOR WITH GAUGE



PIPE SIZE	MODEL NO.	
	22 SERIES	
	W/ SHUTOFF	W/O SHUTOFF
1/4"	A22-VFDRL-2	A22-FDRL-2
3/8"	A22-VFDRL-3	A22-FDRL-3
1/2"	A22-VFDRL-4	A22-FDRL-4
	32 SERIES	
1/2"	A32-VFDRL-4	A32-FDRL-4
3/4"	A32-VFDRL-6	A32-FDRL-6

DIVERTER BLOCKS

Designed to give Monnaire Modulars™ components total versatility, the diverter block mounts directly inline with the FRL combination. Additional components can then be manifold mounted in a compact manner that doesn't cause excessive pressure drop. There are two available ports per unit; both are tapered for standard service.

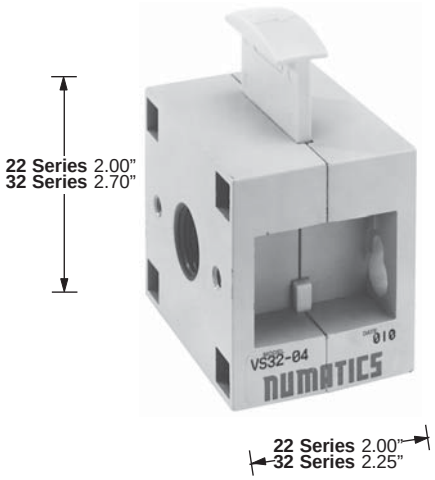


SERIES	MODEL NUMBER NPTF	G TAP	PORTS
22	DB-22	DBG-22	Tapped 1/2" NPTF in and out with two 3/8" NPTF branches.
32	DB-32	DBG-32	Tapped 3/4" NPTF in and out with two 1/2" NPTF branches.

SHUT-OFF VALVE

Features

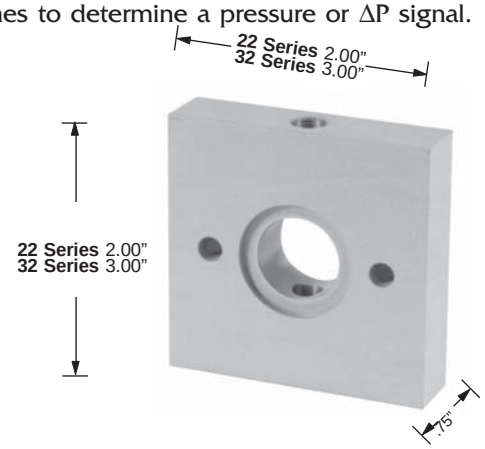
- Relieves downstream pressure when closed
- Security hole provided for lock-off
- Easy Modular Connection
- Can be used as individual component



SERIES	MODEL NUMBER NPTF	G TAP	PORTS
22	V22-2	VG22-2	1/4"
	V22-3	VG22-3	3/8"
	V22-4	VG22-4	1/2"
32	V32-4	VG32-4	1/2"
	V32-6	VG32-6	3/4"

DIVERTER PLATES

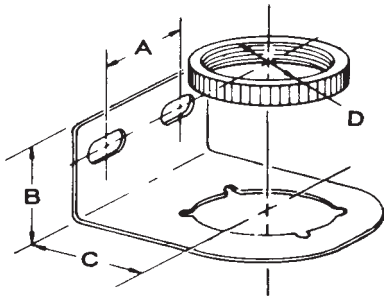
Monnaire Modular™ Diverter Plates are designed to provide air signals in compact space. Used individually or in combination they can be used with gauges or switches to determine a pressure or ΔP signal.



SERIES	NPTF	MODEL NUMBER G TAP	OUTLET PORTS
22	DP-22	DPG-22	1/8"
32	DP-32	DPG-32	1/8"

Application: Mounts between two units

MOUNTING BRACKETS

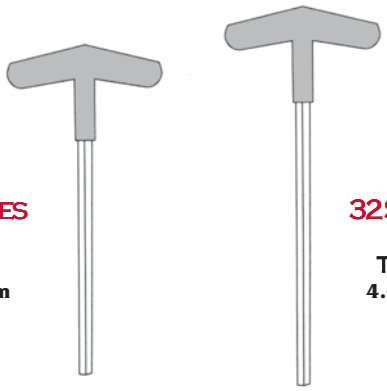


SERIES	MODEL NO.	DIMENSIONS A	B	C	D
22	MB-22	.69"	1.06"	1.25"	1-1/4-16
32	MB-32	1.63"	1.20"	1.50"	1-3/4"-16

Monnaire Modular™ T-Handle Drivers

For easy assembly or disassembly of Monnaire Modular™ combinations, we recommend T-Handle drivers. For your convenience, we offer both sizes required.

SERIES	MODEL NUMBER	SIZE RANGE
22	TH-22	3.0 mm
32	TH-32	4.0 mm



22 SERIES
TH-22
3.0 mm

32 SERIES
TH-32
4.0 mm

Application

Monnier's new line of pressure switches is designed for accurate indication that proper system pressure is being achieved. Available in 1/8" or 1/4" threads, it is easily incorporated into an air system using a diverter plate or other manifold.

With its rugged housing made from zinc coated steel, Monnier's pressure switches are designed for industrial multi-million cycle applications. The four-pin connector plug is included and contains a key way preventing accidental misconnection. Pressure adjustment is tamper resistant hindering unauthorized changes. It can be wired in either normally open or normally closed configurations and includes a case ground pin.

SPECIFICATIONS

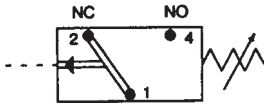
- Contact Rating: 4 A @ 250 VAC
- Protection: IP 65, terminals IP00
- Maximum Operation: 200/min
- Temperature Range: 0° F to 190° F/-15° C to 85° C
- Maximum Pressure: 300 PSI/20 BAR
- Maximum Voltage: 250 VAC/200 DC
- Hystersis Adjustment: 15%
- Connector Material: Polyamid
- Diaphragm Material: Buna N
- Housing Material: Zinc Plated Steel

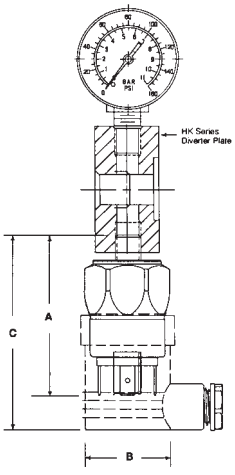
THREAD NPT	MODEL NUMBER PSG180	PSIG	DIMENSIONS A	B	C
1/8"	PS180B-1	4-20	2.5	1.0	3.1
1/8"	PS180C-1	14-150	2.5	1.0	3.1
1/4"	PS180B-2	4-20	2.5	1.0	3.1
1/4"	PS180C-2	14-150	2.5	1.0	3.1
METRIC G-TAP	**MODEL NUMBER PSG180**	**PSIG**	**DIMENSIONS A**	**B**	**C**
1/4"	PSG180B-2	4-20	2.3	1.0	2.9
1/4"	PSG180C-2	14-150	2.3	1.0	2.9

REPLACEMENT CAP PS-180

Monnaire Modular™ Pressure Switches

NORMALLY OPEN OR NORMALLY CLOSED





FILTERS

Model Code Example

204-1000-2D MH A1

DESIGNATES FILTER

ENGINEERING CODE

BOWL CAPACITY

8 oz	= **1**
5 oz	= **2**
1 oz	= **3**
32 oz	= **4**
21 oz	= **5**
64 oz	= **6**

BOWL TYPE

Polycarbonate	= **0**
Poly plus Guard	= **1**
Metal	= **2**
Metal plus Sight	= **3**

ELEMENTS

20 micron	= **00**
10 micron	= **01**
3 micron	= **02**
100 micron	= **03**
0.3 micron	= **09**
0.3 micron w/integral pressure drop indicator	= **89**

ANODIZED

A1 =	Blue	**A5** =	Red
A2 =	Black	**A6** =	Yellow
A3 =	Clear	**A7** =	Gold
A4 =	Green	**A8** =	Purple

MOUNTING HOLES

MH = Two 1/4-20 mounting holes on top surface
MS = 1/4 NPT mounting hole on side

DRAIN

D = Impulse
F = Float

PIPE SIZE

1	= 1/8	**6**	= 3/4
2	= 1/4	**8**	= 1
3	= 3/8	**10**	= 1-1/4
4	= 1/2	**12**	= 1-1/2

REGULATORS

Model Code Example

104C-1000-2 G T A1

DESIGNATES REGULATOR

ENGINEERING CODE

CHECK VALVE

BODY SIZE

1/4, 3/8, 1/2	= **1**
Miniature	= **3**
1-1/4, 1-1/2	= **4**
3/4, 1	= **5**

GAUGE PORTS

Yes	= **0**
No	= **1**

PRESSURE

RANGE	TYPE	
10-130	Relieving	= **00**
10-130	Non-relieving	= **01**
5-60	Relieving	= **02**
5-60	Non-relieving	= **03**
3-30	Relieving	= **04**
3-30	Non-relieving	= **05**
20-250	Relieving	= **06**
20-250	Non-relieving	= **07**
1-10	Relieving	= **08**
1-10	Non-relieving	= **09**

ANODIZED

A1 =	Blue	**A5** =	Red
A2 =	Black	**A6** =	Yellow
A3 =	Clear	**A7** =	Gold
A4 =	Green	**A8** =	Purple

TAMPERPROOF

T	= Tamperproof
TS	= Tamperproof
P	= Preset
PT	= Preset and Tamperproof
PTS	= Preset and Tamperproof

OPTIONS

B	= Bracket
G	= Gauge
K	= Knob

PIPE SIZE

0	= 10-32		
01	= 1/16 ID x 1/8 OD Tube		
02	= 1/8 ID x 1/4 OD Tube		
1	= 1/8	**6**	= 3/4
2	= 1/4	**8**	= 1
3	= 3/8	**10**	= 1-1/4
4	= 1/2	**12**	= 1-1/2

TAMPERPROOF AND PRESET REGULATORS

TAMPERPROOF

T = Lock and Key (1000/4000/5000 Series)
T = Plastic Tie (Non-adjustable) 13050 (101-3000 Series)
TS = Set Screw (Non-adjustable) (All with Aluminum Bonnet)

PRESET

P = Standard Unit (1000/3000/4000/5000 Series) Supply Inlet and Secondary Pressure Setting (to ± 3 psi or ± 5 psi)

PRESET AND TAMPERPROOF

PT = Lock and Key (1000/4000/5000 SERIES)
PT = Plastic Tie (Non-adjustable) 13050 (101-3000 Series)
PTS = Set Screw (Non-adjustable) (All with Aluminum Bonnet) Supply Inlet and Secondary Pressure Setting (to ± 3 psi or ± 5 psi)

LUBRICATORS

Model Code Example

304-1000-2 MH A1

DESIGNATES LUBRICATOR

ENGINEERING CODE

BOWL CAPACITY

8 oz	= **1**
5 oz	= **2**
1 oz	= **3**
32 oz	= **4**
21 oz	= **5**

BOWL TYPE

Polycarbonate	= **0**
Poly plus Guard	= **1**
Metal	= **2**
Metal plus Sight	= **3**

FLOW

Standard	= **00**
Lo-Flo	= **50**

ANODIZED

A1 =	Blue	**A5** =	Red
A2 =	Black	**A6** =	Yellow
A3 =	Clear	**A7** =	Gold
A4 =	Green	**A8** =	Purple

MOUNTING HOLES

MH = Two 1/4-20 mounting holes on top surface
MS = 1/4 NPT mounting hole on side

PIPE SIZE

1	= 1/8	**6**	= 3/4
2	= 1/4	**8**	= 1
3	= 3/8	**10**	= 1-1/4
4	= 1/2	**12**	= 1-1/2

INTEGRAL FILTER/ REGULATOR

Model Code Example

B 01-3000-2 G T A1

DESIGNATES INTEGRAL FILTER/REGULATOR
Poly Bonnet = **B**
Metal Bonnet = **C**

ENGINEERING CODE

BOWL CAPACITY
8 oz = **1**
5 oz = **2**
1 oz = **3**

BOWL TYPE
Polycarbonate = **0**
Poly plus Guard = **1**
Metal = **2**
Metal plus Sight = **3**

PRESSURE

RANGE	TYPE	
10-130	Relieving	= **0**
10-130	Non-relieving	= **1**
5-60	Relieving	= **2**
5-60	Non-relieving	= **3**
3-30	Relieving	= **4**
3-30	Non-relieving	= **5**
20-225	Relieving	= **6**
20-225	Non-relieving	= **7**
1-10	Relieving	= **8**
1-10	Non-relieving	= **9**

ANODIZED
A1 = Blue **A5** = Red
A2 = Black **A6** = Yellow
A3 = Clear **A7** = Gold
A4 = Green **A8** = Purple

TAMPERPROOF
T = Tamperproof
TS = Tamperproof
P = Preset
PT = Preset and Tamperproof
PTS = Preset and Tamperproof

OPTIONS
G = Gauge
B = Bracket Mounted
K = Knob

PIPE SIZE
1 = 1/8
2 = 1/4
3 = 3/8
4 = 1/2

ELEMENTS
0 = 20 Micron
1 = 10 Micron
2 = 3 Micron
9 = 0.3 Micron

VALVE MOUNT/MANIFOLD MOUNT REGULATOR

Model Code Example

R 01 -1 0 A K T A1

DESIGNATES REGULATOR

GAUGE PORTS
Yes = **01**
No = **11**

SIZE
Size 1 = **1**
Size 2 = **2**
Size 3 = **3**

PRESSURE

RANGE Sizes 1 & 2	RANGE Size 3		
10-110	10-130	Relieving	= **0**
10-110	10-130	Non-relieving	= **1**
4-45	5-60	Relieving	= **2**
4-45	5-60	Non-relieving	= **3**
2-20	3-30	Relieving	= **4**
2-20	3-30	Non-relieving	= **5**
20-220	20-250	Relieving	= **6**
20-220	20-250	Non-relieving	= **7**

BONNET
Aluminum Bonnet = **A**

Plastic Bonnet (Size 1 and 2 only) = **P**

ANODIZED
A1 = Blue **A5** = Red
A2 = Black **A6** = Yellow
A3 = Clear **A7** = Gold
A4 = Green **A8** = Purple

TAMPERPROOF
T = Tamperproof
TS = Tamperproof
P = Preset
PT = Preset and Tamperproof
PTS = Preset and Tamperproof

ADJUSTMENT
K = Knob

NOTE: Units with Aluminum Bonnets: Sizes 1 & 2 include an Adjusting Screw. Size 3 includes a T-handle.
For anodized aluminum body, choose color from table and attach the corresponding number as a suffix to the regulator model number, for example, R01-10AKTA1.
Gauge ports are standard.

MANIFOLD

Model Code Example

M 2 - 2 B A1

DESIGNATES MANIFOLD = M

NUMBER OF STATIONS
One Station = **1**
Two Stations = **2**
Three Stations = **3**
Four Stations = **4**

SPECIFY REGULATOR SIZE
Size One = **1**
Size Two = **2**
Size Three = **3**

MOUNTING BRACKET
Mounting Bracket = **B**

ANODIZED*
A1 = Blue **A5** = Red
A2 = Black **A6** = Yellow
A3 = Clear **A7** = Gold
A4 = Green **A8** = Purple

Example: Four-station manifold for Size 2 regulators, no mounting brackets and not anodized: M4-2. Regulators are not included and must be ordered separately.

Note: If anodized, multiple-station manifolds must be all one color.
Note: Manifold port sizes are: Size 1 = 1/4", Size 2 = 3/8", Size 3 = 1/2"

DICTIONARY
OF THE FLUID POWER INDUSTRY

air a gas mixture consisting of nitrogen, oxygen, argon, carbon dioxide, hydrogen, small quantities of neon, helium and other gases.

air con·di·tion·er an assembly comprising a filter, pressure-reducing valve with a gauge and a lubricator, intended to deliver compressed air in suitable condition.

am·bi·ent tem·per·a·ture the temperature of the environment in which an apparatus is working.

at·mos·pher·ic pres·sure pressure exerted by the atmosphere at any specific location (sea level pressure is approximately 14.7 pounds per square inch absolute. 1 bar = 14.5 psi).

back pres·sure the pressure encountered on the return side of a system.

break·loose (break·out) pres·sure the minimum pres sure which initiates movement.

burst pres·sure the pressure at which failure of and consequential loss of fluid through the product envelope.

com·pressed air (pres·sure) air at any pressure greater than atmospheric pressure.

con·tam·i·nant any material or substance which is unwanted or adversely affects the fluid system or components, or both.

con·trol range pres·sure the permissible limits between which system pressure may be set.

crack·ing pres·sure the pressure at which a pressure operated valve begins to pass fluid.

cu·bic feet per min·ute (CFM or ACFM) flow rate of air per minute at the actual temperature and pressure, real world operating conditions

C_v coefficent of flow, used to express the pressure drop across an object, commonly used for sizing.

dew point the temperature at which vapors in a gas condense. For practical purposes, it must be referred to a stated pressure.

dif·fer·en·tial pres·sure (pres·sure drop) the difference in pressure between any two points of a system component.

dried air air with moisture content lower than the maximum allowable for a given application.

fil·ter a device whose primary function is the removal by porous media of insoluble contaminants form a liquid or gas.

flow char·ac·ter·is·tic curve the change in regulated (secondary) pressure occurring as a result of a change in the rate of the air flow over the operating range of the regulator.

flow rate the volume, mass or weight of a fluid passing through any conductor per unit of time.

fluid a liquid, gas or combination thereof.

free air air at ambient temperature, pressure, relative humidity and density.

gauge pres·sure pressure differential above or below ambient atmospheric pressure.

hy·drau·lics engineering science pertaining to liquid pressure and flow.

in·let pres·sure the pressure at the apparatus inlet port.

lubri·cator a device which adds controlled or metered amounts of lubricant into a fluid power system.

max·i·mum in·let pres·sure the maximum rated gauge pressure applied to the inlet port of the regulator.

mod·u·lar F·R·L a preassembled FRL (filter-regulator-lubricator combination) which has easily interchangeable parts.

nom·in·al pres·sure a pressure valve assigned to a component or system for the purpose of convenient designation.

out·let pres·sure pressure at the apparatus outlet port.

pneu·ma·tics engineering science pertaining to gaseous pressure and flow.

pres·sure force per unit area, usually expressed in pounds per square inch (bar).

pres·sure rate the qualified operating pressure which is recommended for a component or system by the manufacturer.

reg·u·la·tor (air·line pres·sure) a regulator which transforms a fluctuating pressure supply to provide a constant lower pressure output.

sat·u·rat·ed air air at 100% relative humidity, with a dew point equal to temperature.

stan·dard cu·bic feet per min·ute (SCFM) flow rate of air per minute at a temperature of 68.8° F, a pressure of 14.7 pounds per square inch absolute and a relative humidity of 36% (0.0750 pounds per cubic foot). In gas industries the temperature of "standard air" is usually given at 60.8° F.

Today's Date:

_____

Reply by Date:

_____

To:
Custom Products Division

EMAIL:
custserv@monnier.com

FAX:
810-794-9451

PHONE:
810-794-4935

PRODUCT APPLICATION FORM

Attention Customers: *Let Monnier engineer your custom air preparation solution. Fill out the following information and fax it to your local distributor or directly to Monnier.*

Name: _____

Company: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Phone: _____ Fax: _____ Mail Stop: _____

Please specify the following:

1. Quantity: _____ 2. Pipe Size: _____

3. Model Number or Competitors Model Number: _____
   - ✓ If known, see pages 43-44 for more information on Monnier model numbers

4. Media: _____
   - ✓ Air, Tap Water. Need specs on all other liquids or gases

5. SCFM: _____
   - ✓ For air or gas, CFM, GPM or cubic inches for liquid

6. Primary Pressure: _____
   - ✓ Inlet or Upstream

7. Pressure Range: _____

8. Secondary Pressure: _____
   - ✓ Downstream or Reduced

9. Ambient Range: _____

10. Circuit Parameters:
    - ✓ Transmission line diameter and length, cylinder and valve sizes, sequence and cycle times (Include schematic if possible)

_____

_____

11. Additional Application Information: _____

_____

_____

12. How did you hear about Monnier?
    - ☐ Distributor
    - ☐ Referral
    - ☐ Past Customer
    - ☐ Internet
    - ☐ Magazine Ad _____
      Month/Year Publication

MONNIER'S COMMITMENT TO QUALITY

Located in Algonac, Michigan, Monnier has been designing, manufacturing, and marketing quality pneumatic components for over seventy years.

Monnier provides the fluid power industry with a full line of quality pneumatic components and integrated systems including filters, regulators, lubricators, accessories and replacement parts. These air preparation products range from sub-miniature regulators to heavy duty units with both standard and custom engineered performance specifications.

The strength of the company has been – and continues to be – its ability to respond quickly to meet our customer's needs for both standard and custom designed products. That capability is possible through the expertise and responsiveness of our associates and through control over our flexible internal manufacturing processes.

Whether you need pneumatic components or a contract manufacturing partner, please contact Monnier, Inc. We take great pride in being known as the company

"where custom air preparation solutions become standard."

WARRANTY

Monnier, Inc. warrants each product against defects in material and workmanship for a period of one year from the date of manufacture providing its use was in accordance with Monnier, Inc. recommendations. If the product fails to perform as warranted, Monnier, Inc. will, at its option, repair or replace the product free of charge. The company will not be liable for incidental or consequential damages. We make no other warranty, expressed or implied, including warranties of merchantability or fitness for a particular purpose.

Innovative Modular Units For Robust Requirements

All Monnier products are machined from aluminum bar stock making them porosity free and extremely durable. In addition, the square modular design allows them to be mounted in the same manner as their die-cast counterparts.

The series will consist of an integral filter/regulator, lubricator, filter, regulator and diverter block.

These units can be anodized in any of our eight bright colors giving the units a measure of corrosion resistance. It also makes system or sub-system identification easier through color coding.

A new option- LASER ETCHING - means the customer can have their name and/or their logo etched on the unit.

As you can see, these are extremely attractive units and not only will they perform well for many years, they will be a constant source of advertising for your company.

MONNIER
INCORPORATED

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