ROSS®

BULLETIN 420

FILTERS
PRESSURE REGULATORS
LUBRICATORS
SILENCERS

ROSS ASIA • ROSS CONTROLS • ROSS EUROPA • ROSS UK

• Manufacturers of Premium Pneumatic Controls since 1921 •

For reliable line conditioning, choose **ROSS**

Filters, Regulators, and Lubricators

Almost any pneumatic system will function better, and for a longer time, with properly "conditioned" air. In fact, many system components, such as air cylinders and motors, may be vulnerable to significant damage from dirty or unlubricated air. Other devices require a carefully maintained, consistent line pressure. Yet others will malfunction or fail due to excess water vapor in the line. These are a few of the cases where filters, regulators, lubricators, and other devices are called on to prepare, or "condition," compressed air. All such devices are available in single-function units, but they are more often installed in combinations to perform several conditioning functions at once.

FRL Combinations

Available with O-ring-sealed modular connectors up to 3/4 ports, and for piped connections to 1-1/2.

Easy assembly and installation.

Rugged and reliable construction makes ROSS FRLs economical and trouble-free system components.

Choose a combination of the standard filter, regulator, and lubricator, or mix and match specialized units to meet special requirements.

Standard ROSS filter elements are rated at 5 microns. Most other brands allow particles up to 40 microns to pass right through. A 40-micron particle is 500 times as big as a 5-micron particle!

ROSS lubricators are available in two configurations: **wick-feed** and **sight-feed.** Both types are available in port sizes from 1/4 to 1-1/2.

ROSS standard regulators monitor and control air pressure with a very high degree of accuracy. For applications requiring even greater precision, there are models that can hold the pressure to within 3 psig (0.2 bar) throughout the entire flow range.

Mounting brackets and nuts for panel mounting available.

Automatic filter drains open to discharge accumulated liquids whenever there is air flow. ROSS strongly recommends their use.

Coalescing filters available to remove 99.98% of oil and particles larger than 0.01 micron. Equipped with differential pressure gauge to indicate life of filter element. Use with 5-micron pre-filter.

For convenience in matching filters, regulators, and lubricators, ROSS units are grouped in five series of increasing flow capacity: ***Miniature, Bantam, Mid-Size, Full-Size,*** and ***High-Capacity.***

MINIATURE Series. For air flows to 20 scfm (9.4 l/s); port sizes 1/8 and 1/4. Units joined by pipe nipples.

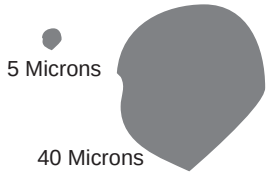
BANTAM Series. For air flows to 30 scfm (14 l/s); port sizes 1/8 and 1/4; tube fittings 1/4 to 10 mm. Modular components are joined without pipe nipples; ports are O-ring sealed. See page 26 for details of modular assembly.

MID-SIZE Series. For air flows to 75 scfm (35 l/s); port sizes 1/4, 3/8, 1/2. Connection of units by either special modular connectors (see page 26) or by pipe nipples.

FULL-SIZE Series. For air flows to 155 scfm (73 l/s); port sizes 1/4 through 3/4. Connection of units by either special modular connectors (see page 26) or by pipe nipples.

HIGH-CAPACITY Series. For air flow to 950 scfm (448 l/s); pipe sizes 3/4 through 2. Connection of units only by pipe nipples.

FILTER RATINGS. ROSS conventional filters have 5-micron ratings compared to the usual industry standard 40-micron rating. 40-Micron particles have 500 times the volume of 5-micron particles, so it's easy to see why ROSS filters clean best.



COMPARATIVE SIZE

ROSS coalescing filters remove 99.98% of oil from the air as well as solids as small as 0.01 micron. A filter as fine as this should be preceded by a conventional 5-micron filter to prolong its service life. Full-Size and High-Capacity units have built-in differential pressure gauges to show when the coalescing element must be changed.

FILTER DRAINS. Most ROSS filters are available with either manual or automatic drains. An automatic drain discharges liquids accumulated in the filter bowl whenever there is a pressure drop. This ensures better filter performance and simplifies maintenance, especially of filters in inaccessible locations. ROSS strongly recommends the use of automatic drains.

PRESSURE REGULATORS. Both piston-types and diaphragm-types are available. All are self-relieving and give accurate and consistent pressure regulation. In the *Miniature, Full-Size, and High-Capacity* series precision regulators are offered. They provide the most precise regulation throughout their flow ranges. *Mid-Size, Full-Size,* and *High-Capacity* series also offer reverse-flow regulators for special applications.

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LUBRICATORS. Two systems of introducing oil into the air stream are used in ROSS lubricators.

Wick Feed. A porous bronze rod carries oil from the lubricator bowl up to the air passage by capillary action, and the air stream picks up the oil. This is a self-adjusting system because the amount of oil added to the air is in proportion to the air flow. This design permits air flow in either direction.

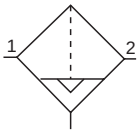
Sight Feed. A riser tube brings the oil up to an adjustable metering valve within a transparent dome, where it then drips into the air stream. A vane in the path of incoming air creates the small pressure drop that draws oil up the riser tube. This occurs even at very low air flows so that no air passes without being lubricated.

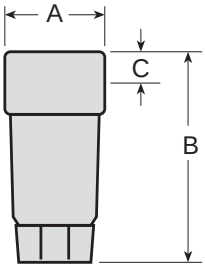
CONSOLIDATED FILTER & REGULATOR. A filter and a regulator consolidated into a single space-saving assembly is available in all sizes except the *High-Capacity* series.

Pre-assembled combinations of filter, regulator, and lubricator units are available in all series.

MINIATURE Filters

Ports: 1/8 & 1/4
Flow to 20 scfm





General Purpose Filters have a 5-micron-rated filter element for particulate and liquid removal. Both automatic and manual drain models are available.

Coalescing Filters are designed for low-air-flow equipment, e.g., air instruments and air logic circuits that use no more than 5 scfm (2.4 l/s). Filter elements remove 99.98 per cent of oil, and particulates larger than 0.01 microns.

FILTERS — General Purpose

Port Size	Air Flow scfm (l/s)	Automatic Drain Models Plastic Bowl	Automatic Drain Models Metal Bowl	Manual Drain Models Plastic Bowl	Manual Drain Models Metal Bowl	Dimensions inches (mm)* A	B	C
1/8	10 (4.7)	5021B1010	5022B1010	5011B1010	5012B1010	1.7 (42)	4.0 (102)	0.4 (10)
1/4	20 (9.4)	5021B2010	5022B2010	5011B2010	5012B2010	1.7 (42)	4.0 (102)	0.4 (10)

FILTERS — Coalescing

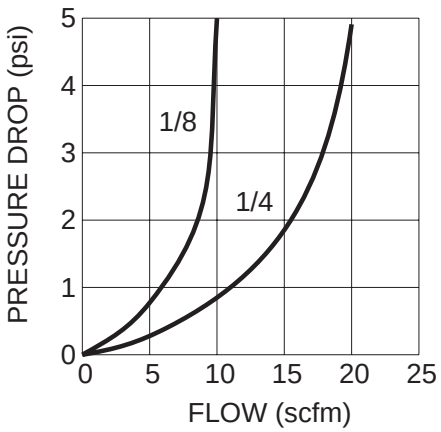
1/8	4 (1.9)	—	—	5031B1028	5032B1018	1.7 (42)	4.0 (102)	0.4 (10)
1/4	4 (1.9)	—	—	5031B2028	5032B2028	1.7 (42)	4.0 (102)	0.4 (10)

* Dimensions do not include pressure gauges.

STANDARD SPECIFICATIONS

Ambient/Media Temperature:
Plastic Bowl: 40° to 125°F (4° to 52°C).
Metal Bowl: 40° to 150°F (4° to 66°C).

Maximum Inlet Pressure: With automatic drain, inlet pressure must be at least 15 psig (1 bar).
Plastic Bowl: 150 psig (10 bar).
Metal Bowl: 200 psig (14 bar).

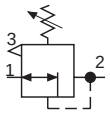


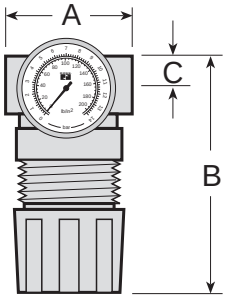
(Inlet Pressure: 100 psig)

See* Compatible Lubricants *and CAUTIONS about polycarbonate plastic bowls on page 25.

MINIATURE Regulators & Relief Valves

Ports: 1/8 & 1/4
Flow to 20 scfm





General Purpose Regulators are available in two self-relieving types: piston types for high air flow, and diaphragm types for maximum sensitivity and fast response. Adjusting knobs are removable so that the regulators are tamper-resistant

Precision Regulators have a small valve seat and a large diaphragm area, a combination that allows greater precision, sensitivity, adjustment resolution, and less variation in regulated pressure.

Relief Valves have maximum relief flows of 10 to 20 scfm (4.7 to 9.4 l/s). For models with increased sensitivity at lower pressures, consult ROSS.

REGULATORS and RELIEF VALVES

Port Size	Service	Flow Rating** scfm (l/s)	Regulated Pressure psig (bar)	Piston Type Models	Diaphragm Type Models	Dimensions inches (mm)*** A	B	C
1/8	General	10 (4.7)	0 – 50 (3.4)	5212B1004	5212B1005	1.7 (42)	3.0 (75)	0.4 (10)
	General	10 (4.7)	0 – 100 (7)	5211B1004	5211B1005	1.7 (42)	3.0 (75)	0.4 (10)
	General	10 (4.7)	0 – 125 (8.5)	5213B1004	5213B1005	1.7 (42)	3.0 (75)	0.4 (10)
	Precision*	10 (4.7)	0 – 50 (3.4)*	—	5212B1006	1.8 (45)	3.8 (96)	0.4 (10)
	Relief	10 (4.7)	1 – 140 (9.7)	—	5210B1001	1.7 (42)	3.0 (75)	0.4 (10)
	Relief	10 (4.7)	1 – 15 (1.0)	—	5210B1002	1.7 (42)	3.0 (75)	0.4 (10)
	Relief	10 (4.7)	1 – 30 (2.0)	—	5210B1003	1.7 (42)	3.0 (75)	0.4 (10)
	Relief	10 (4.7)	1 – 50 (3.4)	—	5210B1004	1.7 (42)	3.0 (75)	0.4 (10)
1/4	General	20 (9.4)	0 – 50 (3.4)	5212B2004	5212B2005	1.7 (42)	3.0 (75)	0.4 (10)
	General	20 (9.4)	0 – 100 (7)	5211B2004	5211B2005	1.7 (42)	3.0 (75)	0.4 (10)
	General	20 (9.4)	0 – 125 (8.5)	5213B2004	5213B2005	1.7 (42)	3.0 (75)	0.4 (10)
	Precision*	20 (9.4)	0 – 50 (3.4)*	—	5212B2006	1.8 (45)	3.8 (96)	0.4 (10)
	Relief	20 (9.4)	1 – 140 (9.7)	—	5210B2001	1.7 (42)	3.0 (75)	0.4 (10)
	Relief	20 (9.4)	1 – 15 (1.0)	—	5210B2002	1.7 (42)	3.0 (75)	0.4 (10)
	Relief	20 (9.4)	1 – 30 (2.0)	—	5210B2003	1.7 (42)	3.0 (75)	0.4 (10)
	Relief	20 (9.4)	1 – 50 (3.4)	—	5210B2004	1.7 (42)	3.0 (75)	0.4 (10)

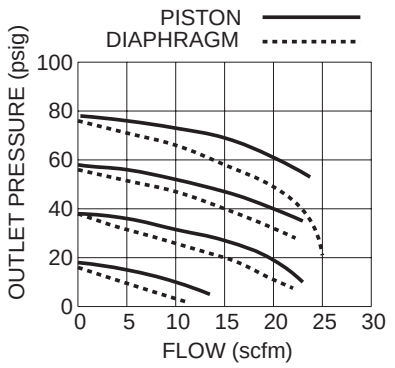
* For 0-5, 0-10, 0-20, & 0-60 psig ranges, please consult ROSS. ** For comparison with filters and lubricators. *** Dimensions do not include pressure gauges.

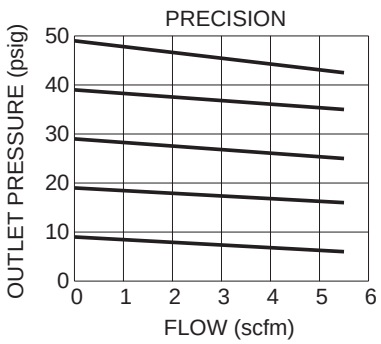
STANDARD SPECIFICATIONS

Ambient/Media Temperature: 40° to 175°F (4° to 80°C).
Gauge Ports: Front and back; 1/8 NPT.
Maximum Inlet Pressure: 300 psig (17 bar).

ADDITIONAL INFORMATION

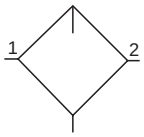
Pressure Gauges: Page 27.

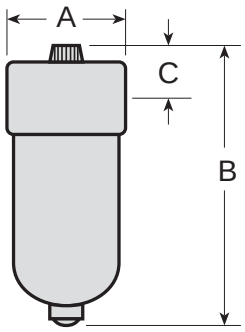




MINIATURE Lubricators

Ports: 1/8 & 1/4
Flow to 25 scfm





Reliable wick-feed design has an internal adjustment to regulate oil flow. A porous bronze wick picks up oil by capillary action; oil is then stripped off the wick by the flow of air to provide a constant oil-to-air ratio. Available in two air flow ranges.

Quick-fill caps with built-in check valves are available for all models.

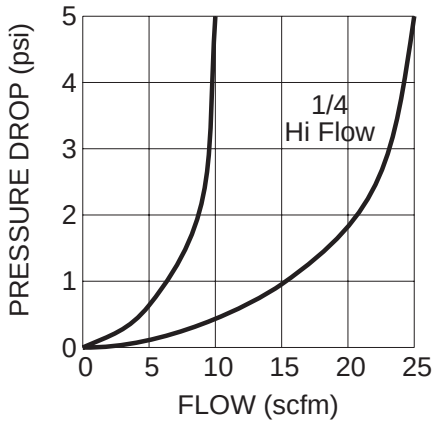
Port Size	Type	Air Flow scfm (l/s)	Model Numbers* Plastic Bowl	Model Numbers* Metal Bowl	Reservoir ounces (ml)	Dimensions inches (mm) A	B	C
1/8	High flow	2–10 (1–4.7)	5111B1010	5112B1010	2.0 (59)	1.7 (42)	4.3 (108)	0.7 (18)
	Low flow	1–10 (0.5–4.7)	5111B1012	5112B1012	2.0 (59)	1.7 (42)	4.3 (108)	0.7 (18)
1/4	High flow	6–25 (3–12)	5111B2010	5112B2010	2.0 (59)	1.7 (42)	4.3 (108)	0.7 (18)
	Low flow	1–10 (0.5–4.7)	5111B2012	5112B2012	2.0 (59)	1.7 (42)	4.3 (108)	0.7 (18)

*To order a lubricator with quick-fill cap, change the third digit from the end of the model number from "0" to "1," e.g., model 5111B1010 with quick-fill cap becomes model 5111B1110.

STANDARD SPECIFICATIONS

Ambient/Media Temperature:
Plastic Bowl: 40° to 125°F (4° to 52°C).
Metal Bowl: 40° to 150°F (4° to 66°C).

Maximum Inlet Pressure:
Plastic Bowl: 150 psig (10 bar).
Metal Bowl: 200 psig (14 bar).

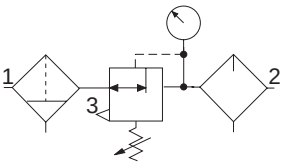


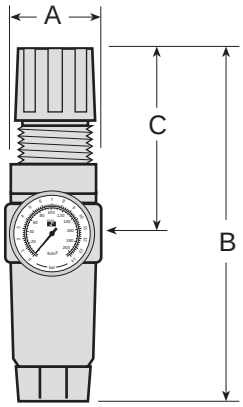
(Inlet Pressure: 100 psig)

See* Compatible Lubricants *and CAUTIONS about polycarbonate plastic bowls on page 25.

MINIATURE Combined Units

Ports: 1/8 & 1/4
Flow to 20 scfm





Consolidated Filter and Regulator

STANDARD SPECIFICATIONS

Ambient/Media Temperature:
Plastic Bowl: 40° to 125°F (4° to 52°C).
Metal Bowl: 40° to 150°F (4° to 66°C).
Regulator: 40° to 175°F (4° to 80°C).

Maximum Inlet Pressure: With automatic drain, inlet pressure must be at least 15 psig (1 bar).
Plastic Bowl: 150 psig (10 bar).
Metal Bowl: 200 psig (14 bar).
Regulator: 250 psig (17 bar).

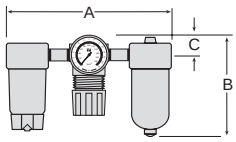
CONSOLIDATED FILTER & REGULATOR* (piston type)

Port Size	Air Flow scfm (l/s)	Automatic Drain Models Plastic Bowl	Automatic Drain Models Metal Bowl	Manual Drain Models Plastic Bowl	Manual Drain Models Metal Bowl	Dimensions inches (mm) A	B	C
1/8	10 (4.7)	5321B1032	5322B1031	5321B1002	5322B1001	1.7 (42)	6.2 (158)	2.6 (66)
1/4	20 (9.4)	5321B2032	5322B2031	5321B2002	5322B2001	1.7 (42)	6.2 (158)	2.6 (66)

CONSOLIDATED FILTER & REGULATOR* (diaphragm type)

1/8	10 (4.7)	5321B1042	5322B1041	5321B1022	5322B1021	1.7 (42)	6.2 (158)	2.6 (66)
1/4	20 (9.4)	5321B2042	5322B2041	5321B2022	5322B2021	1.7 (42)	6.2 (158)	2.6 (66)

*Regulated pressure 0 – 100 psig (7 bar); gauge included; regulator adjusting knob removable for tamper-resistance.



COMBINATION FILTER & REGULATOR* (piston type)

Port Size	Automatic Drain Models Plastic Bowl	Automatic Drain Models Metal Bowl	Manual Drain Models Plastic Bowl	Manual Drain Models Metal Bowl	Dimensions inches (mm)*** A	B	C
1/8	5321B1027	5322B1024	5321B1026	5322B1025	3.6 (91)	4.0 (102)	0.4 (10)
1/4	5321B2027	5322B2024	5321B2026	5322B2025	3.6 (91)	4.0 (102)	0.4 (10)

COMBINATION FILTER & REGULATOR* (diaphragm type)

1/8	5321B1037	5322B1034	5321B1036	5322B1035	3.6 (91)	4.0 (102)	0.4 (10)
1/4	5321B2037	5322B2034	5321B2036	5322B2035	3.6 (91)	4.0 (102)	0.4 (10)

*Regulated pressure 0 – 100 psig (7 bar); gauge included.

COMBINATION FILTER & LUBRICATOR ** (High flow)

1/8	5311B1012	5312B1012	5311B1011	5312B1011	3.6 (91)	4.4 (110)	0.7 (18)
1/4	5311B2012	5312B2012	5311B2011	5312B2011	3.6 (91)	4.4 (110)	0.7 (18)

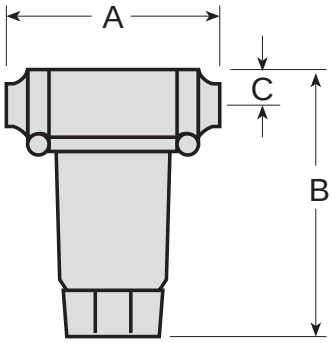
COMBINATION FILTER, REGULATOR* (diaphragm type) & LUBRICATOR** (High flow)

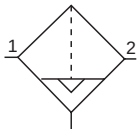
1/8	5331B1006	5332B1006	5331B1005	5332B1005	5.5 (140)	4.4 (110)	0.7 (18)
1/4	5331B2006	5332B2006	5331B2005	5332B2005	5.5 (140)	4.4 (110)	0.7 (18)

*Regulated pressure 0 – 100 psig (7 bar); gauge included. **To order the lubricator with a quick-fill cap, change the third digit from the end of the model number from "0" to "1," e.g., model 5311B1012 with quick-fill cap becomes model 5311B1112.
*** Dimensions do not include pressure gauges.

BANTAM Filters

Ports: 1/8 to 3/8
Flow to 30 scfm





General Purpose Filters in the Bantam series are of modular design, and are ideal where space is limited. They are available with either threaded ports or fittings for plastic tubing. Filter elements are rated at 5 microns.

Coalescing Filters are designed for low-air-flow equipment, e.g., air instruments and air logic circuits. Filter elements remove 99.98 per cent of oil, and particulates larger than 0.01 microns. Units are available with either threaded ports or fittings for plastic tubing.

Note: Always use a general purpose pre-filter with a coalescing filter.

FILTERS — General Purpose

Port Size	Air Flow scfm (l/s)	Automatic Drain Models Plastic Bowl	Automatic Drain Models Metal Bowl	Manual Drain Models Plastic Bowl	Manual Drain Models Metal Bowl	Dimensions inches (mm) A	B	C
1/8	30 (14)	5B01B0100	5B01B0200	5B01B0300	5B01B0400	3.0 (77)	4.2 (105)	0.5 (13)
1/4	30 (14)	5B02B0100	5B02B0200	5B02B0300	5B02B0400	3.0 (77)	4.2 (105)	0.5 (13)
WITH TUBE FITTINGS:								
1/4	30 (14)	5B03B0100	5B03B0200	5B03B0300	5B03B0400	3.0 (77)	4.2 (105)	0.5 (13)
3/8	30 (14)	5B04B0100	5B04B0200	5B04B0300	5B04B0400	3.0 (77)	4.2 (105)	0.5 (13)
4mm	30 (14)	5B05B0100	5B05B0200	5B05B0300	5B05B0400	3.5 (89)	4.2 (105)	0.5 (13)
6mm	30 (14)	5B06B0100	5B06B0200	5B06B0300	5B06B0400	3.5 (89)	4.2 (105)	0.5 (13)
8mm	30 (14)	5B07B0100	5B07B0200	5B07B0300	5B07B0400	3.5 (89)	4.2 (105)	0.5 (13)
10mm	30 (14)	5B08B0100	5B08B0200	5B08B0300	5B08B0400	3.5 (89)	4.2 (105)	0.5 (13)

FILTERS — Coalescing

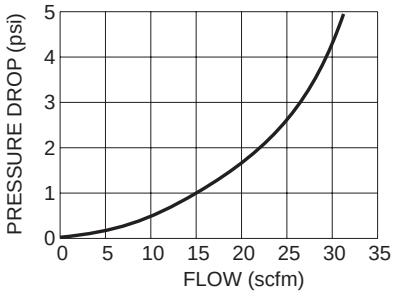
1/8	5 (1.9)	—	—	5B01B0500	5B01B0600	3.0 (77)	4.2 (105)	0.5 (13)
1/4	5 (1.9)	—	—	5B02B0500	5B02B0600	3.0 (77)	4.2 (105)	0.5 (13)
WITH TUBE FITTINGS:								
1/4	5 (1.9)	—	—	5B03B0500	5B03B0600	3.0 (77)	4.2 (105)	0.5 (13)
3/8	5 (1.9)	—	—	5B04B0500	5B04B0600	3.0 (77)	4.2 (105)	0.5 (13)
4mm	5 (1.9)	—	—	5B05B0500	5B05B0600	3.5 (89)	4.2 (105)	0.5 (13)
6mm	5 (1.9)	—	—	5B06B0500	5B06B0600	3.5 (89)	4.2 (105)	0.5 (13)
8mm	5 (1.9)	—	—	5B07B0500	5B07B0600	3.5 (89)	4.2 (105)	0.5 (13)
10mm	5 (1.9)	—	—	5B08B0500	5B08B0600	3.5 (89)	4.2 (105)	0.5 (13)

STANDARD SPECIFICATIONS

Ambient/Media Temperature:
40° to 125°F (4° to 52°C).

Maximum Inlet Pressure: With automatic drain, inlet pressure must be at least 15 psig (1 bar).
Plastic Bowl: 150 psig (10 bar).
Metal Bowl: 200 psig (14 bar).

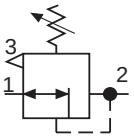
See* Compatible Lubricants *and CAUTIONS about polycarbonate plastic bowls on page 25.

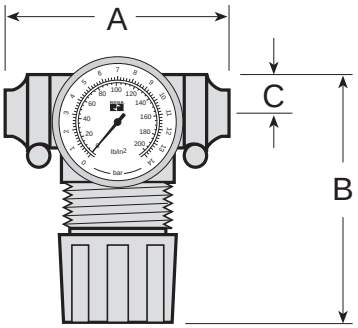


(Inlet Pressure: 100 psig)

BANTAM Regulators

Ports: 1/8 to 3/8
Flow to 30 scfm





The Bantam series regulators are of modular design. They are available in either a piston type for high air flow, or a diaphragm type for maximum sensitivity and response.

Adjusting knob is removable for tamper-resistance.

Port Size	Regulated Pressure* psig (bar)	Piston Type Models Pipe Ports	Piston Type Models Tube Fittings	Diaphragm Type Models Pipe Ports	Diaphragm Type Models Tube Fittings	Dimensions inches (mm)** A	B	C
1/8	0–100 (7)	5B01B0010	—	5B01B0020	—	3.0 (77)	3.5 (89)	0.5 (13)
1/4	0–100 (7)	5B02B0010	5B03B0010	5B02B0020	5B03B0020	3.0 (77)	3.5 (89)	0.5 (13)
3/8	0–100 (7)	—	5B04B0010	—	5B04B0020	3.0 (77)	3.2 (80)	0.5 (13)
4mm	0–100 (7)	—	5B05B0010	—	5B05B0020	3.5 (89)	3.2 (80)	0.5 (13)
6mm	0–100 (7)	—	5B06B0010	—	5B06B0020	3.5 (89)	3.2 (80)	0.5 (13)
8mm	0–100 (7)	—	5B07B0010	—	5B07B0020	3.5 (89)	3.2 (80)	0.5 (13)
10mm	0–100 (7)	—	5B08B0010	—	5B08B0020	3.5 (89)	3.2 (80)	0.5 (13)

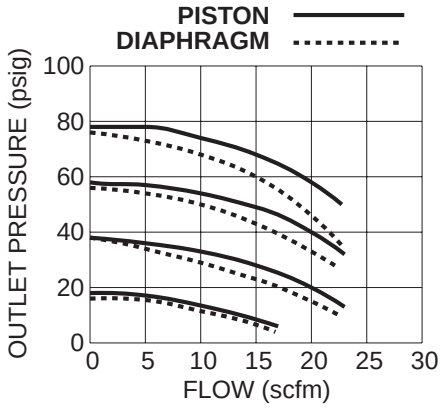
*For other regulated pressure ranges, change the next to last digit in the model number as indicated below:

0–50 psig (3.4 bar): Piston type: Change 1 to 3. Diaphragm type: Change 2 to 4.
0–125 psig (8.5 bar): Piston type: Change 1 to 5. Diaphragm type: Change 2 to 6.

** Dimensions do not include pressure gauges.

STANDARD SPECIFICATIONS
Ambient/Media Temperature:
40° to 125°F (4° to 52°C).
Gauge Ports: Front and back; 1/8 NPT.
Maximum Inlet Pressure: 150 psig (10 bar).

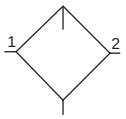
ADDITIONAL INFORMATION
Pressure Gauges: Page 27.

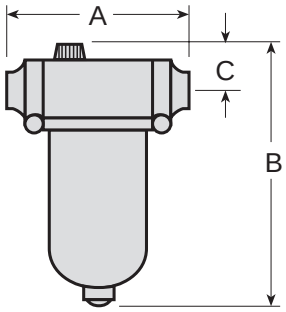


(Inlet Pressure: 100 psig)

BANTAM Lubricators

Ports: 1/8 to 3/8
Flow to 25 scfm





Reliable wick feed lubricators are of modular design, and are available with either threaded ports or fittings for plastic tubing. There is a calibrated "no shut off" oil delivery adjustment knob.

Quick-fill caps with built-in check valves are available for all models.

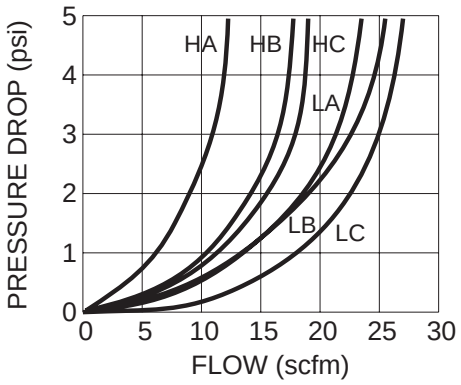
Port Size	Air Flow scfm (l/s)	Models With Pipe Ports* Plastic Bowl	Models With Pipe Ports* Metal Bowl	Models With Tube Fittings* Plastic Bowl	Models With Tube Fittings* Metal Bowl	Dimensions inches (mm) A	B	C
1/8	1–25 (.5–12)	5B01B0005	5B01B0006	—	—	3.0 (77)	4.5 (113)	0.9 (23)
1/4	1–25 (.5–12)	5B02B0005	5B02B0006	5B03B0005	5B03B0006	3.0 (77)	4.5 (113)	0.9 (23)
3/8	1–25 (.5–12)	—	—	5B04B0005	5B04B0006	3.0 (77)	4.5 (113)	0.9 (23)
4mm	1–25 (.5–12)	—	—	5B05B0005	5B05B0006	3.5 (89)	4.5 (113)	0.9 (23)
6mm	1–25 (.5–12)	—	—	5B06B0005	5B06B0006	3.5 (89)	4.5 (113)	0.9 (23)
8mm	1–25 (.5–12)	—	—	5B07B0005	5B07B0006	3.5 (89)	4.5 (113)	0.9 (23)
10mm	1–25 (.5–12)	—	—	5B08B0005	5B08B0006	3.5 (89)	4.5 (113)	0.9 (23)

*To order a lubricator with quick-fill cap, add 2 to the last digit in the model number, e.g., model 5B01B0005 with quick-fill cap becomes model 5B01B0007.

STANDARD SPECIFICATIONS

Ambient/Media Temperature:
Plastic Bowl: 40° to 125°F (4° to 52°C).
Metal Bowl: 40° to 150°F (4° to 66°C).

Maximum Inlet Pressure: 150 psig (10 bar).



H: High Oil Delivery
L: Low Oil Delivery

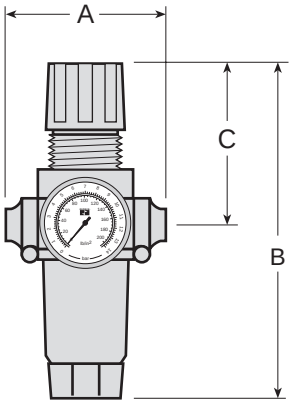
A: Wick Up
B: Wick Down 1 Groove
C: Wick Down 2 Grooves

(Inlet Pressure: 100 psig)

See* Compatible Lubricants *and CAUTIONS about polycarbonate plastic bowls on page 25.

BANTAM Combined Units

Ports: 1/8 to 1/4
Flow to 30 scfm



Consolidated Filter and Regulator

For combinations of units other than those shown below see page 30.

STANDARD SPECIFICATIONS

Ambient/Media Temperature:
Plastic Bowl: 40° to 125°F (4° to 52°C).
Metal Bowl: 40° to 150°F (4° to 66°C).
Regulator: 40° to 175°F (4° to 80°C).

Maximum Inlet Pressure: With automatic drain, inlet pressure must be at least 15 psig (1 bar).
Plastic Bowl: 150 psig (10 bar).
Metal Bowl: 200 psig (14 bar).
Regulator: 250 psig (17 bar).

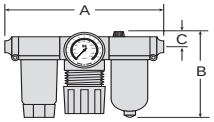
CONSOLIDATED FILTER & REGULATOR* (piston type)

Port Size	Air Flow scfm (l/s)	Automatic Drain Models Plastic Bowl	Automatic Drain Models Metal Bowl	Manual Drain Models Plastic Bowl	Manual Drain Models Metal Bowl	Dimensions inches (mm) A	B	C
1/8	30 (14)	5D01B0110	5D01B0210	5D01B0310	5D01B0410	3.0 (77)	6.3 (159)	2.7 (67)
1/4	30 (14)	5D02B0110	5D02B0210	5D02B0310	5D02B0410	3.0 (77)	6.3 (159)	2.7 (67)

CONSOLIDATED FILTER & REGULATOR* (diaphragm type)

1/8	30 (14)	5D01B0120	5D01B0220	5D01B0320	5D01B0420	3.0 (77)	6.3 (159)	2.7 (67)
1/4	30 (14)	5D02B0120	5D02B0220	5D02B0320	5D02B0420	3.0 (77)	6.3 (159)	2.7 (67)

*Regulated pressure 0 – 100 psig (7 bar); gauge included; adjustment knob removable for tamper-resistance.



COMBINATION FILTER & REGULATOR* (piston type)

Port Size	Automatic Drain Models Plastic Bowl	Automatic Drain Models Metal Bowl	Manual Drain Models Plastic Bowl	Manual Drain Models Metal Bowl	Dimensions inches (mm)** A	B	C
1/8	5B01B0110	5B01B0210	5B01B0310	5B01B0410	4.7 (118)	4.2 (105)	0.5 (13)
1/4	5B02B0110	5B02B0210	5B02B0310	5B02B0410	4.7 (118)	4.2 (105)	0.5 (13)

COMBINATION FILTER & REGULATOR* (diaphragm type)

1/8	5B01B0120	5B01B0220	5B01B0320	5B01B0420	4.7 (118)	4.2 (105)	0.5 (13)
1/4	5B02B0120	5B02B0220	5B02B0320	5B02B0420	4.7 (118)	4.2 (105)	0.5 (13)

*Regulated pressure 0 – 100 psig (7 bar); gauge included.

COMBINATION FILTER & LUBRICATOR

1/8	5B01B0105	5B01B0206	5B01B0305	5B01B0406	4.7 (118)	4.5 (115)	0.9 (23)
1/4	5B02B0105	5B02B0206	5B02B0305	5B02B0406	4.7 (118)	4.5 (115)	0.9 (23)

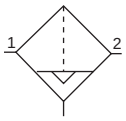
COMBINATION FILTER, REGULATOR* (piston type) & LUBRICATOR

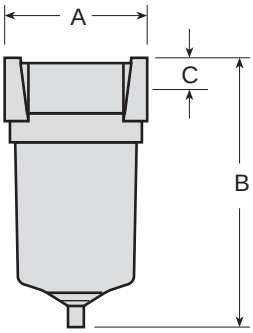
1/8	5B01B0115	5B01B0216	5B01B0315	5B01B0416	6.3 (159)	4.5 (115)	0.9 (23)
1/4	5B02B0115	5B02B0216	5B02B0315	5B02B0416	6.3 (159)	4.5 (115)	0.9 (23)

*Regulated pressure 0 – 100 psig (7 bar); gauge included. ** Dimensions do not include pressure gauges.

MID-SIZE Filters

Ports: 1/4 to 1/2
Flow to 75 scfm





General Purpose Filters have a 5-micron-rated filter element for particulate and liquid removal. Both automatic and manual drain models are available.

Coalescing Filters: See page 16 for coalescing filters in this flow range.

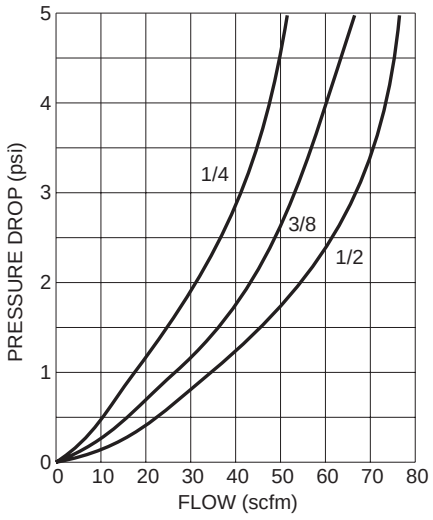
Port Size	Air Flow scfm (l/s)	Automatic Drain Models Plastic Bowl*	Automatic Drain Models Metal Bowl	Manual Drain Models Plastic Bowl*	Manual Drain Models Metal Bowl	Dimensions inches (mm) A	B	C
1/4	45 (21)	5021B2007	5022B2007	5011B2007	5012B2007	2.7 (68)	5.2 (132)	0.7 (16)
3/8	65 (31)	5021B3027	5022B3027	5011B3026	5012B3026	2.7 (68)	5.2 (132)	0.7 (16)
1/2	75 (35)	5021B4007	5022B4007	5011B4007	5012B4007	2.7 (68)	5.2 (132)	0.7 (16)

*Plastic bowls include metal bowl guard.

STANDARD SPECIFICATIONS

Ambient/Media Temperature:
Plastic Bowl: 40° to 125°F (4° to 52°C).
Metal Bowl: 40° to 150°F (4° to 66°C).

Maximum Inlet Pressure: With automatic drain, inlet pressure must be at least 15 psig (1 bar).
Plastic Bowl: 150 psig (10 bar).
Metal Bowl: 200 psig (14 bar).

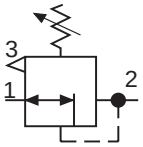


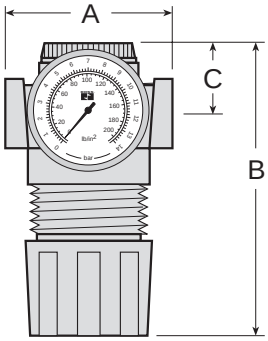
(Inlet Pressure: 100 psig)

See* Compatible Lubricants *and CAUTIONS about polycarbonate plastic bowls on page 25.

MID-SIZE Regulators

Ports: 1/4 to 1/2
Flow to 75 scfm





Mid-Size Regulators feature a self-relieving, balanced-valve, piston design for fast cycling valves and cylinders. Units are designed for modular installation (see page 26), but also have threaded ports for installation with conventional pipe fittings.

Adjustment knob is removable for tamper-resistance.

Reverse-Flow Regulators are also available. They provide regulated in-to-out pressure control, plus quick exhausting from out-to-in. Used for downstream pressure regulation of weld guns, and other applications requiring quick exhausting through the regulator. Available with adjustment knob or T-handle.

REGULATORS — General Purpose

Port Size	Flow Rating* scfm (l/s)	Regulated Pressure Range 0 – 50 psig (0 – 3.4 bar)	0 – 100 psig (0 – 6.9 bar)	0 – 150 psig (0 –10 bar)	Dimensions inches (mm)** A	B	C
1/4	45 (21)	5212B2015	5211B2015	5213B2015	2.7 (68)	4.6 (117)	1.4 (34)
3/8	65 (31)	5212B3015	5211B3015	5213B3015	2.7 (68)	4.6 (117)	1.4 (34)
1/2	75 (35)	5212B4015	5211B4015	5213B4015	2.7 (68)	4.6 (117)	1.4 (34)

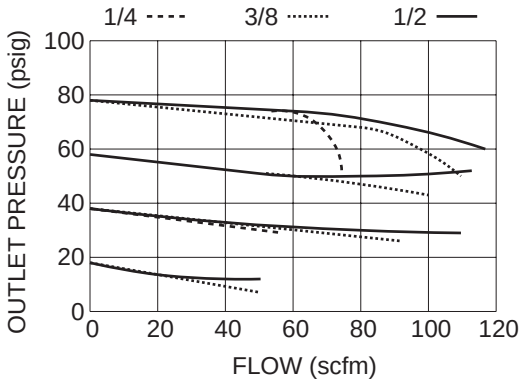
REGULATORS — Reverse Flow; Regulated Pressure Range 0–100 psig (0–6.9 bar)

		Knob Adjustment	T-Handle Adjustment			
1/4	65 (31)	5X00B2035	5X00B2039	2.7 (68)	4.6 (117)	1.4 (34)
3/8	65 (31)	5X00B3024	5X00B3021	2.7 (68)	4.6 (117)	1.4 (34)
1/2	75 (35)	5X00B4023	5X00B4041	2.7 (68)	4.6 (117)	1.4 (34)

*For comparison with filters and lubricators. ** Dimensions do not include pressure gauges.

STANDARD SPECIFICATIONS
Ambient/Media Temperature:
40° to 175°F (4° to 80°C).
Gauge Ports: Front and back; 1/4 NPT.
Maximum Inlet Pressure: 300 psig (17 bar).

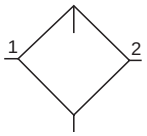
ADDITIONAL INFORMATION
Pressure Gauges: Page 27.

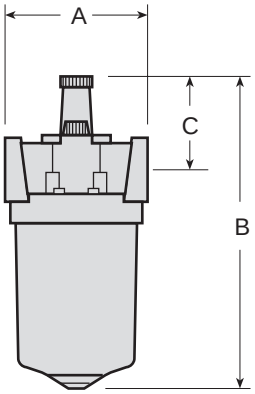


(Inlet Pressure: 100 psig)

MID-SIZE Lubricators

Ports: 1/4 to 1/2
Flow to 110 scfm





Mid-Size Lubricators have a transparent sight-feed dome that shows how much oil is being dispensed. Oil reservoir can be filled under pressure. Adjusting knob is removable to make the lubricator tamper-resistant.

Units are designed for modular installation (see page 26), but also have threaded ports for installation with conventional pipe fittings.

Quick-fill caps with built-in check valves are available for all models.

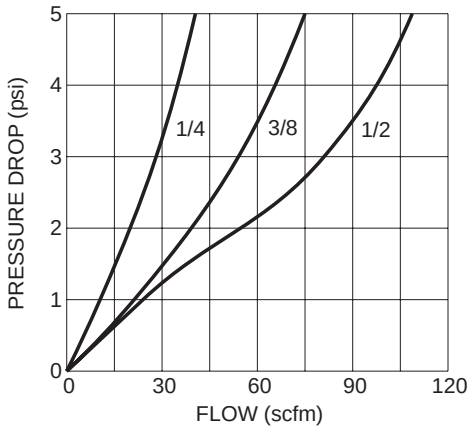
Port Size	Type	Air Flow scfm (l/s)	Model Numbers* Plastic Bowl**	Metal Bowl	Reservoir ounces (ml)	Dimensions inches (mm) A	B	C
1/4	Sight feed	2-40 (1-19)	5111B2007	5112B2007	4.0 (118)	2.7 (68)	5.9 (150)	1.9 (47)
3/8	Sight feed	2-75 (1-35)	5111B3007	5112B3007	4.0 (118)	2.7 (68)	5.9 (150)	1.9 (47)
1/2	Sight feed	2-110 (1-52)	5111B4007	5112B4007	4.0 (118)	2.7 (68)	5.9 (150)	1.9 (47)

*To order a lubricator with quick-fill cap, change the third digit from the end of the model number from "0" to "1," e.g., model 5111B2007 with quick-fill cap becomes model 5111B2107. **Plastic bowl includes metal bowl guard.

STANDARD SPECIFICATIONS

Ambient/Media Temperature:
Plastic Bowl: 40° to 125°F (4° to 52°C).
Metal Bowl: 40° to 150°F (4° to 66°C).

Maximum Inlet Pressure: 150 psig (10 bar).

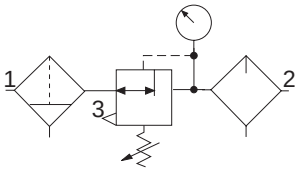


(Inlet Pressure: 100 psig)

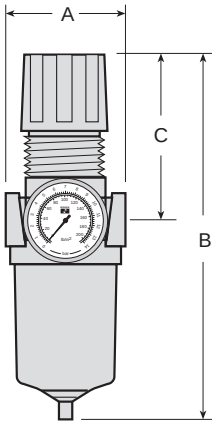
See **Compatible Lubricants** *and CAUTIONS about polycarbonate plastic bowls on page 25.*

MID-SIZE Combined Units

Ports: 1/4 to 1/2
Flow to 75 scfm



Consolidated Filter and Regulator



For combinations of units other than those shown below see page 30.

STANDARD SPECIFICATIONS

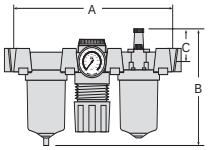
Ambient/Media Temperature:
Plastic Bowl: 40° to 125°F (4° to 52°C).
Metal Bowl: 40° to 150°F (4° to 66°C).
Regulator: 40° to 175°F (4° to 80°C).

Maximum Inlet Pressure: With automatic drain, inlet pressure must be at least 15 psig (1 bar).
Plastic Bowl: 150 psig (10 bar).
Metal Bowl: 200 psig (14 bar).
Regulator: 250 psig (17 bar).

CONSOLIDATED FILTER & REGULATOR*

Port Size	Air Flow scfm (l/s)	Automatic Drain Models Plastic Bowl**	Automatic Drain Models Metal Bowl	Manual Drain Models Plastic Bowl**	Manual Drain Models Metal Bowl	Dimensions inches (mm) A	B	C
1/4	45 (21)	5321B2052	5322B2051	5321B2062	5322B2061	2.7 (68)	7.9 (200)	3.3 (84)
3/8	65 (31)	5321B3052	5322B3051	5321B3062	5322B3061	2.7 (68)	7.9 (200)	3.3 (84)
1/2	75 (35)	5321B4052	5322B4051	5321B4062	5322B4061	2.7 (68)	7.9 (200)	3.3 (84)

*Piston type; regulated pressure 0 – 100 psig (7 bar); gauge included; adjustment knob removable for tamper-resistance.
**Plastic bowl includes metal bowl guard.



COMBINATION FILTER & REGULATOR* (Includes 2 female port kits.)

Port Size	Automatic Drain Models Plastic Bowl**	Automatic Drain Models Metal Bowl	Manual Drain Models Plastic Bowl**	Manual Drain Models Metal Bowl	Dimensions inches (mm)*** A	B	C
1/4	5M11B2110	5M11B2210	5M11B2310	5M11B2410	8.5 (216)	5.9 (150)	1.4 (34)
3/8	5M11B3110	5M11B3210	5M11B3310	5M11B3410	8.5 (216)	5.9 (150)	1.4 (34)
1/2	5M11B4110	5M11B4210	5M11B4310	5M11B4410	8.5 (216)	5.9 (150)	1.4 (34)

*Piston type; regulated pressure 0 – 100 psig (7 bar); gauge included. **Plastic bowl includes metal bowl guard.

COMBINATION FILTER & LUBRICATOR (Includes 2 female port kits.)

1/4	5M11B2101	5M11B2202	5M11B2301	5M11B2402	8.5 (216)	6.4 (162)	1.9 (47)
3/8	5M11B3101	5M11B3202	5M11B3301	5M11B3402	8.5 (216)	6.4 (162)	1.9 (47)
1.2	5M11B4101	5M11B4202	5M11B4301	5M11B4402	8.5 (216)	6.4 (162)	1.9 (47)

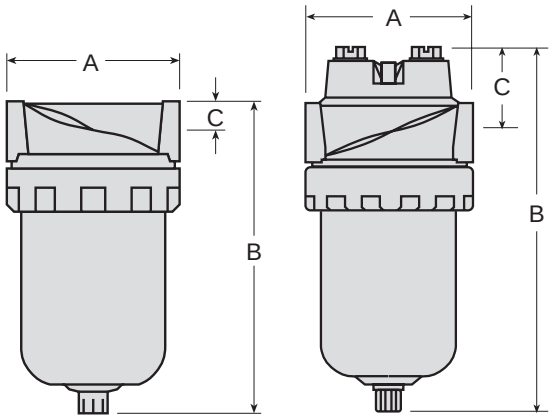
COMBINATION FILTER, REGULATOR* & LUBRICATOR (Includes 2 female port kits.)

1/4	5M11B2111	5M11B2212	5M11B2311	5M11B2412	11.2 (283)	6.4 (162)	1.9 (47)
3/8	5M11B3111	5M11B3212	5M11B3311	5M11B3412	11.2 (283)	6.4 (162)	1.9 (47)
1/2	5M11B4111	5M11B4212	5M11B4311	5M11B4412	11.2 (283)	6.4 (162)	1.9 (47)

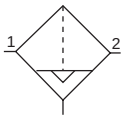
*Piston type; regulated pressure 0 – 100 psig (7 bar); gauge included. **Plastic bowl includes metal bowl guard.
*** Dimensions do not include pressure gauges.

FULL-SIZE Filters

Ports: 1/4 to 3/4
Flow to 155 scfm



General Purpose Coalescing



General Purpose Filters have a 5-micron-rated filter element for particulate and liquid removal. Both automatic and manual drain models are available. Units are designed for modular installation (see page 26), but also have threaded ports for installation with conventional pipe fittings.

Coalescing Filters are designed to remove 99.98 per cent of oil, and particulates larger than 0.01 micron. Ideal for use preceding equipment such as automatic gauging fixtures, paint spray systems, and unlubricated valves and cylinders. Differential pressure gauge included to show when filter element needs changing.

Note: Always use a general purpose pre-filter with a coalescing filter.

FILTERS — General Purpose

Port Size	Air Flow scfm (l/s)	Automatic Drain Models Plastic Bowl**	Automatic Drain Models Metal Bowl	Manual Drain Models Plastic Bowl**	Manual Drain Models Metal Bowl	Dimensions inches (mm) A	B	C
1/4	45 (21)	5021B2008	5022B2005	5011B2008	5012B2006	3.5 (89)	6.4 (162)	0.7 (16)
3/8	85 (40)	5021B3008	5022B3005	5011B3008	5012B3006	3.5 (89)	6.4 (162)	0.7 (16)
1/2	130 (61)	5021B4008	5022B4005	5011B4008	5012B4006	3.5 (89)	6.4 (162)	0.7 (16)
3/4	155 (73)	5021B5018	5022B5015	5011B5018	5012B5016	3.5 (89)	6.4 (162)	0.7 (16)

**Plastic bowl includes metal bowl guard.

FILTERS — Coalescing

1/4	16 (7.5)	—	—	5031B2008	5032B2018	3.5 (89)	7.6 (192)	1.8 (46)
3/8	16 (7.5)	—	—	5031B3008	5032B3018	3.5 (89)	7.6 (192)	1.8 (46)
1/2	16 (7.5)	—	—	5031B4008	5032B4018	3.5 (89)	7.6 (192)	1.8 (46)
	48 (23)	—	—	5031B4028	5032B4028	3.5 (89)	12.1 (306)	1.8 (46)

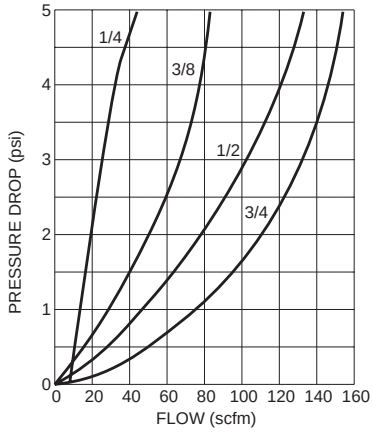
**Plastic bowl includes metal bowl guard.

STANDARD SPECIFICATIONS

Ambient/Media Temperature:
Plastic Bowl: 40° to 125°F (4° to 52°C).
Metal Bowl: 40° to 150°F (4° to 66°C).

Maximum Inlet Pressure: With automatic drain, inlet pressure must be at least 15 psig (1 bar).
Plastic Bowl: 150 psig (10 bar).
Metal Bowl: 200 psig (14 bar).

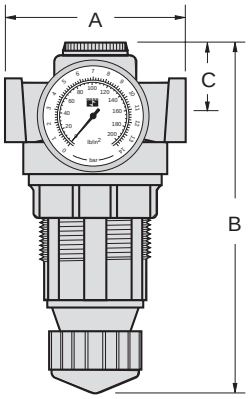
See* Compatible Lubricants *and CAUTIONS about polycarbonate plastic bowls on page 25.

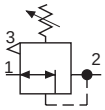


(Inlet Pressure: 100 psig)

FULL-SIZE Regulators

Ports: 1/4 to 3/4
Flow to 155 scfm





General Purpose Regulators feature a self-relieving, diaphragm design for high air flow and low pressure drop. Units are designed for modular installation (see page 26), but also have threaded ports for installation with conventional pipe fittings. A removable adjustment locking key that resists tampering is standard.

Precision Regulators provide improved torque control for pneumatic tools; diaphragm type. Pressure settings held within 3 psig (0.2 bar).

Remote Pilot Regulators use any small regulator to provide remote adjustment, and ensure accurate pressure control. Diaphragm type.

Reverse-Flow Regulators provide regulated in-to-out pressure control, plus quick exhausting from out-to-in. Used for applications, such as weld guns, requiring quick exhausting through the regulator.

STANDARD SPECIFICATIONS

Ambient/Media Temperature: 40° to 175°F (4° to 80°C).
Gauge Ports: Front and back; 1/4 NPT.
Maximum Inlet Pressure: 300 psig (17 bar).

REGULATORS — General Purpose

Port Size	Flow Rating* scfm (l/s)	Regulated Pressure Range 0 – 50 psig (0 – 3.4 bar)	0 – 125 psig (0 – 8.6 bar)	0 – 175 psig (0 –11.7 bar)	Dimensions inches (mm)** A	B	C
1/4	45 (21)	5212B2017	5211B2017	5213B2017	3.5 (89)	7.1 (180)	1.4 (34)
3/8	85 (40)	5212B3017	5211B3017	5213B3017	3.5 (89)	7.1 (180)	1.4 (34)
1/2	130 (61)	5212B4017	5211B4017	5213B4017	3.5 (89)	7.1 (180)	1.4 (34)
3/4	155 (73)	5212B5027	5211B5027	5213B5027	3.5 (89)	7.1 (180)	1.4 (34)

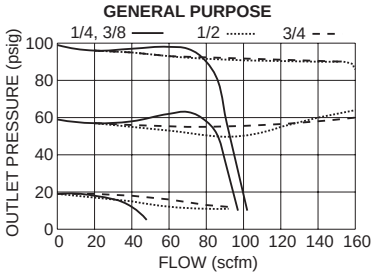
REGULATORS — Precision

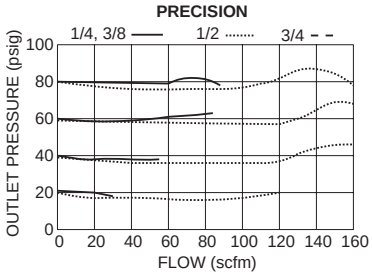
		15-200 psig (1-14 bar)	15-250 psig (1-17 bar)			
1/4	45 (21)	5213C2018	5214C2018	3.5 (89)	5.5 (140)	1.4 (34)
3/8	85 (40)	5213C3018	5214C3018	3.5 (89)	5.5 (140)	1.4 (34)
1/2	130 (61)	5213C4018	5214C4018	3.5 (89)	5.5 (140)	1.4 (34)
3/4	155 (73)	5213C5018	5214C5018	3.5 (89)	5.5 (140)	1.4 (34)

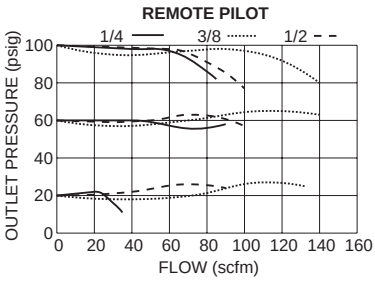
REGULATORS — Remote Pilot and Reverse-Flow

		REMOTE PILOT 0-200 psig (14 bar)	REVERSE FLOW 0-125 psig(1-17 bar) Knob	T-Handle	A	B	C
1/4	45 (21)	5211C2007	—	—	3.5 (89)	5.5 (140)	1.4 (34)
1/4	45 (21)	—	5X00B2010	—	3.5 (89)	7.1 (180)	1.4 (34)
3/8	85 (40)	5211C3007	—	—	3.5 (89)	5.5 (140)	1.4 (34)
3/8	85 (40)	—	5X00B3004	5X00B3012	3.5 (89)	7.1 (180)	1.4 (34)
1/2	130 (61)	5211C4007	—	—	3.5 (89)	5.5 (140)	1.4 (34)
1/2	130 (61)	—	5X00B4004	5X00B4047	3.5 (89)	7.1 (180)	1.4 (34)
3/4	155 (73)	5211C5007	—	—	3.5 (89)	5.5 (140)	1.4 (34)
3/4	155 (73)	—	5X00B5034	5X00B5044	3.5 (89)	7.1 (180)	1.4 (34)

*For comparison with filters and lubricators. ** Dimensions do not include pressure gauges.



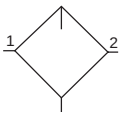


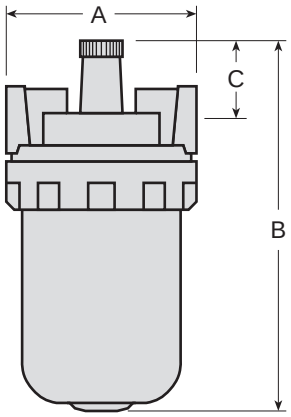


(Inlet Pressure: 100 psig)

FULL-SIZE Lubricators

Ports: 1/4 to 3/4
Flow to 110 scfm





Sight Feed Lubricators have a transparent dome that shows how much oil is being dispensed. Oil reservoir can be filled under pressure. Adjusting knob is removable to make the lubricator "tamper resistant."

Wick Feed Lubricators have an internal adjustment to regulate oil flow. A porous bronze wick picks up oil by capillary action; oil is then stripped off the wick by the flow of air to provide a constant oil-to-air ratio.

Both types are designed for modular installation, but also have threaded ports for installation with conventional pipe fittings.

Quick-fill caps with built-in check valves are available for all models.

Port Size	Air Flow scfm (l/s)	Sight Feed Models* Plastic Bowl**	Sight Feed Models* Metal Bowl	Wick Feed Models* Plastic Bowl**	Wick Feed Models* Metal Bowl	Reservoir ounces (ml)	Dimensions inches (mm) A	B	C
1/4	2-25 (1-12)	5111B2008	5112B2008	—	—	8.0 (236)	3.5 (89)	6.7 (169)	1.3 (32)
1/4	2-25 (1-12)	—	—	5111B2014	5112B2014	8.0 (236)	3.5 (89)	6.1 (154)	0.7 (18)
3/8	2-55 (1-26)	5111B3008	5112B3008	—	—	8.0 (236)	3.5 (89)	6.7 (169)	1.3 (32)
3/8	2-55 (1-26)	—	—	5111B3014	5112B3014	8.0 (236)	3.5 (89)	6.1 (154)	0.7 (18)
1/2	2-80 (1-38)	5111B4008	5112B4008	—	—	8.0 (236)	3.5 (89)	6.7 (169)	1.3 (32)
1/2	2-80 (1-38)	—	—	5111B4014	5112B4014	8.0 (236)	3.5 (89)	6.1 (154)	0.7 (18)
3/4	2-110 (1-52)	5111B5008	5112B5008	—	—	8.0 (236)	3.5 (89)	6.7 (169)	1.3 (32)
3/4	2-110 (1-52)	—	—	5111B5014	5112B5014	8.0 (236)	3.5 (89)	6.1 (154)	0.7 (18)

*To order a lubricator with quick-fill cap, change the third digit from the end of the model number from "0" to "1," e.g., model 5111B2008 with quick-fill cap becomes model 5111B2108. **Plastic bowl includes metal bowl guard.

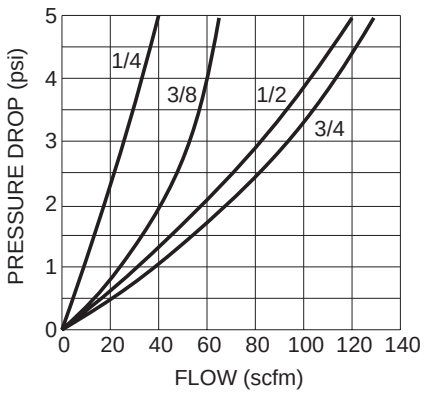
STANDARD SPECIFICATIONS

Ambient/Media Temperature:
Plastic Bowl: 40° to 125°F (4° to 52°C).
Metal Bowl: 40° to 150°F (4° to 66°C).

Maximum Inlet Pressure:
Plastic Bowl: 150 psig (10 bar).
Metal Bowl: 200 psig (14 bar).

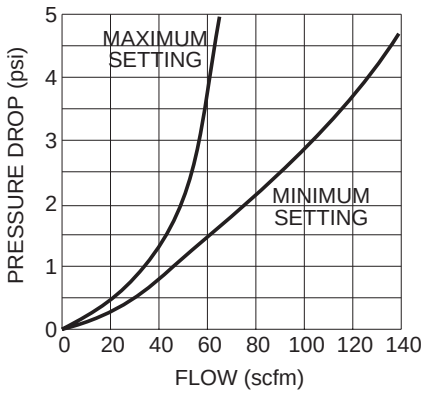
See* Compatible Lubricants *and CAUTIONS about polycarbonate plastic bowls on page 25.

SIGHT FEED



(Inlet Pressure: 100 psig)

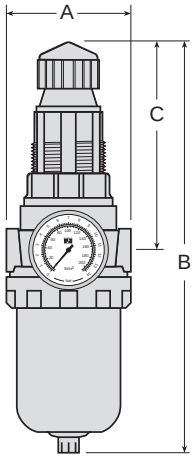
WICK FEED

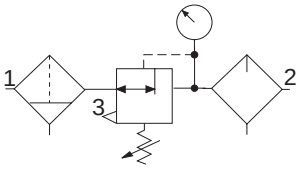


FULL-SIZE Combined Units

Ports: 1/4 to 3/4
Flow to 140 scfm

Consolidated Filter and Regulator





For combinations of units other than those shown below see page 31.

STANDARD SPECIFICATIONS

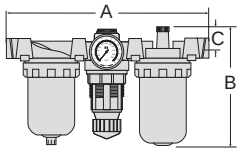
Ambient/Media Temperature:
Plastic Bowl: 40° to 125°F (4° to 52°C).
Metal Bowl: 40° to 150°F (4° to 66°C).
Regulator: 40° to 175°F (4° to 80°C).

Maximum Inlet Pressure: With automatic drain, inlet pressure must be at least 15 psig (1 bar).
Plastic Bowl: 150 psig (10 bar).
Metal Bowl: 200 psig (14 bar).
Regulator: 250 psig (17 bar).

CONSOLIDATED FILTER & REGULATOR*

Port Size	Air Flow scfm (l/s)	Automatic Drain Models Plastic Bowl**	Automatic Drain Models Metal Bowl	Manual Drain Models Plastic Bowl**	Manual Drain Models Metal Bowl	Dimensions inches (mm) A	B	C
1/4	45 (21)	5321B2072	5322B2071	5321B2012	5322B2011	3.5 (89)	11.5 (293)	5.8 (147)
3/8	80 (38)	5321B3072	5322B3071	5321B3012	5322B3011	3.5 (89)	11.5 (293)	5.8 (147)
1/2	120 (57)	5321B4072	5322B4071	5321B4012	5322B4011	3.5 (89)	11.5 (293)	5.8 (147)
3/4	140 (66)	5321B5072	5322B5071	5321B5012	5322B5011	3.5 (89)	11.5 (293)	5.8 (147)

*Diaphragm type; regulated pressure 0 – 125 psig (8.6 bar); gauge included.
**Plastic bowl includes metal bowl guard.



COMBINATION FILTER & REGULATOR* (Includes 2 female port kits.)

Port Size	Automatic Drain Models Plastic Bowl**	Automatic Drain Models Metal Bowl	Manual Drain Models Plastic Bowl**	Manual Drain Models Metal Bowl	Dimensions inches (mm) A	B	C
1/4	5F11B2120	5F11B2220	5F11B2320	5F11B2420	10.0 (254)	7.1 (180)	1.4 (34)
3/8	5F11B3120	5F11B3220	5F11B3320	5F11B3420	10.0 (254)	7.1 (180)	1.4 (34)
1/2	5F11B4120	5F11B4220	5F11B4320	5F11B4420	10.0 (254)	7.1 (180)	1.4 (34)
3/4	5F11B5120	5F11B5220	5F11B5320	5F11B5420	10.0 (254)	7.1 (180)	1.4 (34)

*Diaphragm type; regulated pressure 0 – 125 psig (8.6 bar); gauge included. **Plastic bowl includes metal bowl guard.

COMBINATION FILTER & LUBRICATOR (Includes 2 female port kits.)

1/4	5F11B2101	5F11B2202	5F11B2301	5F11B2402	10.0 (254)	7.1 (180)	1.3 (33)
3/8	5F11B3101	5F11B3202	5F11B3301	5F11B3402	10.0 (254)	7.1 (180)	1.3 (33)
1/2	5F11B4101	5F11B4202	5F11B4301	5F11B4402	10.0 (254)	7.1 (180)	1.3 (33)
3/4	5F11B5101	5F11B5202	5F11B5301	5F11B5402	10.0 (254)	7.1 (180)	1.3 (33)

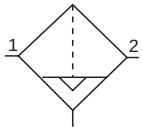
COMBINATION FILTER, REGULATOR* & LUBRICATOR (Includes 2 female port kits.)

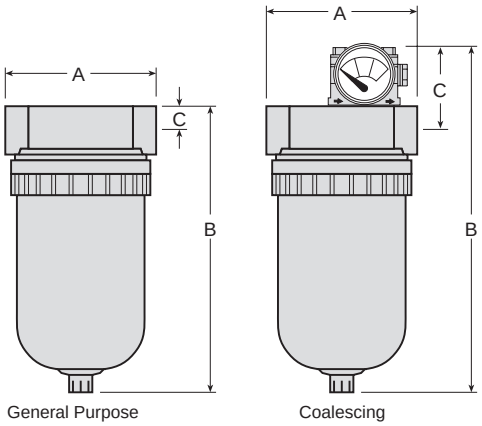
1/4	5F11B2121	5F11B2222	5F11B2321	5F11B2422	13.8 (350)	7.1 (180)	1.4 (34)
3/8	5F11B3121	5F11B3222	5F11B3321	5F11B3422	13.8 (350)	7.1 (180)	1.4 (34)
1/2	5F11B4121	5F11B4222	5F11B4321	5F11B4422	13.8 (350)	7.1 (180)	1.4 (34)
3/4	5F11B5121	5F11B5222	5F11B5321	5F11B5422	13.8 (350)	7.1 (180)	1.4 (34)

*Diaphragm type; regulated pressure 0 – 125 psig (8.6 bar); gauge included. **Plastic bowl includes metal bowl guard.

HIGH-CAPACITY Filters

Ports: 3/4 to 2
Flow to 950 scfm





General Purpose Coalescing

General Purpose Filters have a 5-micron-rated filter element for particulate and liquid removal. Both automatic and manual drain models are available.

Coalescing Filters are designed to remove 99.98 per cent of oil, and particulates larger than 0.01 micron. Ideal for use with a general purpose filter in air headers, at the outlets of compressors or aftercoolers, before and after dryers, and on large fixtures and machines. Differential pressure gauge included to show when the filter element needs changing. Manual drains only.

FILTERS — General Purpose

Port Size	Air Flow scfm (l/s)	Automatic Drain Models Plastic Bowl*	Automatic Drain Models Metal Bowl	Manual Drain Models Plastic Bowl*	Manual Drain Models Metal Bowl	Dimensions inches (mm) A	B	C
3/4	225 (106)	5021B5008	5022B5005	5011B5008	5012B5006	4.5 (115)	8.9 (224)	0.9 (21)
1	275 (130)	5021B6008	5022B6005	5011B6008	5012B6006	4.5 (115)	8.9 (224)	0.9 (21)
1-1/4	950 (448)	—	5022B7018	—	5012B7018	8.0 (204)	15.0 (381)	1.8 (45)
1-1/2	950 (448)	—	5022B8018	—	5012B8018	8.0 (204)	15.0 (381)	1.8 (45)
2	950 (448)	—	5022B9018	—	5012B9018	8.0 (204)	15.0 (381)	1.8 (45)

*Plastic bowl includes metal bowl guard.

FILTERS — Coalescing

3/4	60 (28)	—	—	5031B5008	5032B5018	4.5 (115)	11.1 (282)	3.1 (79)
1	100 (47)	—	—	5031B6008	5032B6018	4.5 (115)	11.1 (282)	3.1 (79)
	140 (66)	—	—	—	5032C6028	4.5 (115)	15.2 (386)	3.1 (79)
1-1/4	215 (101)	—	—	—	5032B7018	7.8 (197)	18.9 (480)	3.9 (99)
1-1/2	215 (101)	—	—	—	5032B8018	7.8 (197)	18.9 (480)	3.9 (99)
2	430 (203)	—	—	—	5032B9018	7.8 (197)	18.9 (480)	3.9 (99)

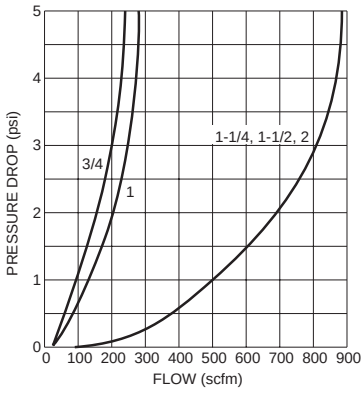
*Plastic bowl includes metal bowl guard.

STANDARD SPECIFICATIONS

Ambient/Media Temperature:
Plastic Bowl: 40° to 125°F (4° to 52°C).
Metal Bowl: 40° to 150°F (4° to 66°C).

Maximum Inlet Pressure: With automatic drain, inlet pressure must be at least 15 psig (1 bar).
Plastic Bowl: 150 psig (10 bar).
Metal Bowl: 200 psig (14 bar).

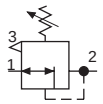
See* Compatible Lubricants *and CAUTIONS about polycarbonate plastic bowls on page 25.

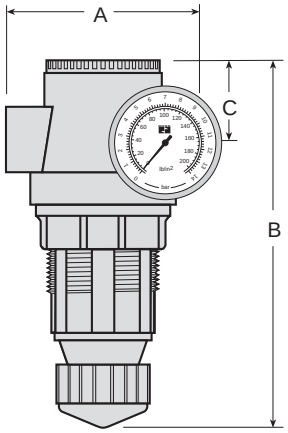


(Inlet Pressure: 100 psig)

HIGH-CAPACITY Regulators

Ports: 3/4 to 2
Flow to 950 scfm





General Purpose Regulators feature a self-relieving, piston design for high air flow and little variation in regulated pressure. Units have threaded ports for installation with conventional pipe fittings. A removable adjustment locking key that resists tampering is standard.

Precision Regulators provide improved torque control for pneumatic tools. Pressure settings are held within 3 psig (0.2 bar).

Remote Pilot Regulators use any small regulator to provide remote adjustment, and ensure accurate pressure control. Diaphragm design is used for the 3/4 through 1-1/2 size regulators, but piston design is used for the two largest units (5211B8027,5211B9007).

Reverse-Flow Regulators provide regulated in-to-out pressure control, plus quick exhausting from out-to-in. Used for applications, such as weld guns, requiring quick exhausting through the regulator. Piston type design.

REGULATORS — General Purpose; Piston type

Port Size	Flow Rating* scfm (l/s)	Regulated Pressure Range 0 – 100 psig (0 – 6.9 bar)	0 – 50 psig (0 – 3.4 bar)	Dimensions inches (mm)*** A	B	C
3/4	225 (106)	5211D5017	5212D5017	4.4 (112)	8.5 (216)	2.5 (62)
1	275 (130)	5211D6017	5212D6017	4.4 (112)	8.5 (216)	2.5 (62)
1-1/4	950 (448)	5211C7017	5212C7017	4.9 (124)	8.5 (216)	2.2 (54)
1-1/2	950 (448)	5211C8017	5212C8017	4.9 (124)	8.5 (216)	2.2 (54)

REGULATORS — Precision, High Flow; Piston type

		15-200 psig(1-14 bar)	15-250 psig(1-17 bar			
3/4	225 (106)	5213D5017	5214D5017	4.4 (112)	7.1 (179)	2.5 (62)
1	275 (130)	5213D6017	5214D6017	4.4 (112)	7.1 (179)	2.5 (62)
1-1/4	950 (448)	5213D7017	5214D7017	4.9 (124)	7.1 (179)	2.2 (54)
1-1/2	950 (448)	5213D8017	5214C8017	4.9 (124)	7.1 (179)	2.2 (54)

REGULATORS — Remote Pilot; Diaphragm type

3/4	225 (106)	5211D5006	—	4.4 (112)	7.2 (182)	2.5 (62)
1	275 (130)	5211D6007	—	4.4 (112)	7.2 (182)	2.5 (62)
1-1/4	950 (448)	5211D7007	—	4.9 (124)	7.3 (183)	2.2 (54)
1-1/2	950 (448)	5211D8007	—	4.9 (124)	7.3 (183)	2.2 (54)
		5211B8027**	—	6.4 (162)	8.0 (204)	3.0 (77)
2	950 (448)	5211B9007**	—	6.4 (162)	8.0 (204)	3.0 (77)

REGULATORS — Reverse-Flow; Piston type; 0–100 psig (6.9 bar)

		Knob	T-Handle			
3/4	225 (106)	5X00B5049	5X00B5050	4.4 (112)	8.5 (217)	2.5 (62)
1	275 (130)	5X00D6003	5X00B6038	4.4 (112)	8.5 (217)	2.5 (62)
1-1/4	950 (448)	5X00C7003	5X00B7016	4.9 (124)	8.5 (217)	2.2 (54)
1-1/2	950 (448)	5X00C8001	5X00B8024	4.9 (124)	8.5 (217)	2.2 (54)

*For comparison with filters and lubricators. ** Piston type. *** Dimensions do not include pressure gauges.

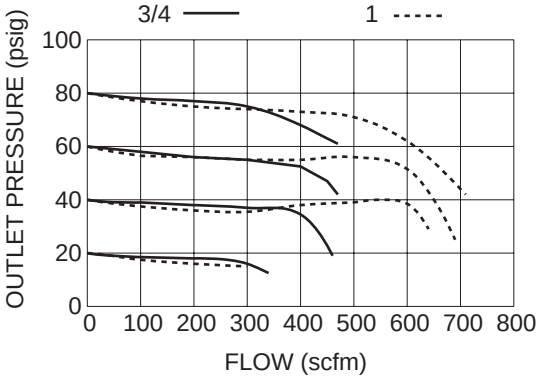
STANDARD SPECIFICATIONS
Ambient/Media Temperature: 40° to 175°F (4° to 80°C).
Gauge Ports: Front & back; 1/4 NPT.
Maximum Inlet Pressure: 250 psig (17 bar).

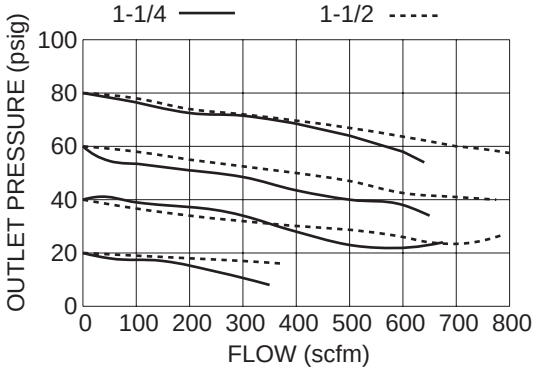
See following page for FLOW CHARTS.

ADDITIONAL INFORMATION:
Pressure Gauges: Page 27.

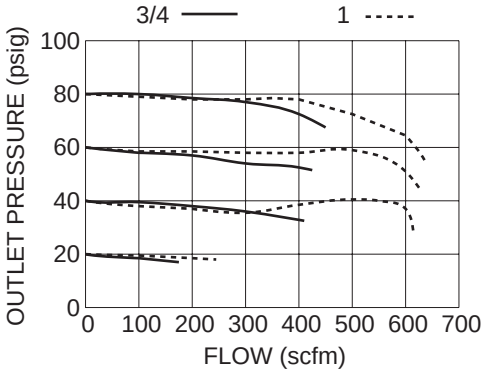
FLOW CHARTS for HIGH-CAPACITY Regulators

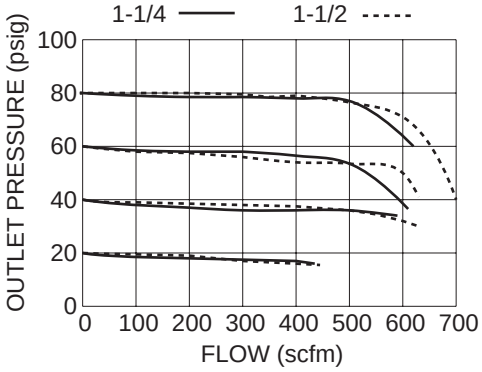
GENERAL PURPOSE REGULATORS (100 psig inlet pressure)



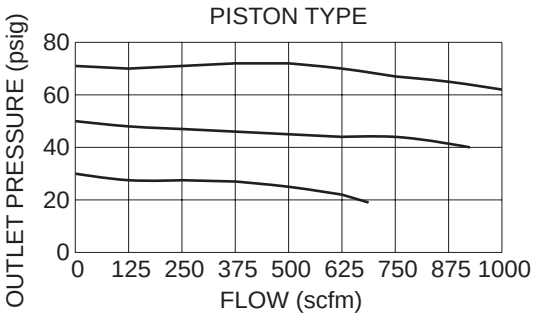


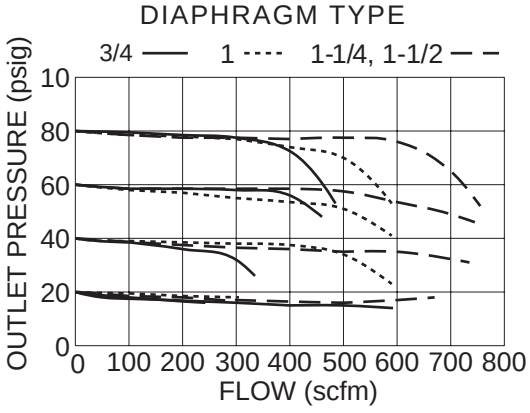
PRECISION REGULATORS (100 psig inlet pressure)





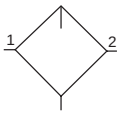
REMOTE PILOT REGULATORS (100 psig inlet pressure)

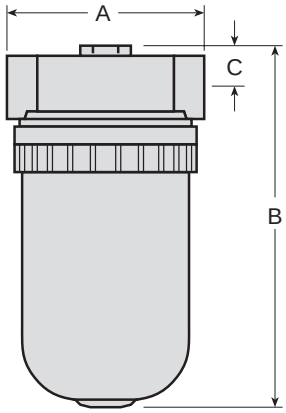




HIGH-CAPACITY Lubricators

Ports: 3/4 to 1-1/2
Flow to 500 scfm





Sight Feed Lubricators have a transparent dome that shows how much oil is being dispensed. Oil reservoir can be filled under pressure. Adjusting knob is removable to make the lubricator "tamper resistant."

Wick Feed Lubricators have an internal adjustment to regulate oil flow. A porous bronze wick picks up oil by capillary action; oil is then stripped off the wick by the flow of air to provide a constant oil-to-air ratio.

Both types have threaded ports for installation with conventional pipe fittings.

Quick-fill caps with built-in check valves are available for all models.*

Port Size	Air Flow scfm (l/s)	Sight Feed Models* Plastic Bowl**	Sight Feed Models* Metal Bowl	Wick Feed Models* Plastic Bowl**	Wick Feed Models* Metal Bowl	Reservoir ounces (ml)	Dimensions inches (mm) A	B	C
3/4	10-345(5-163)	5111B5009	5112B5009	—	—	16 (473)	4.7 (118)	9.7 (245)	1.5 (37)
	25-160(12-75)	—	—	5111B5011	5112B5011	16 (473)	4.3 (108)	8.9 (224)	0.9 (21)
1	10-350(5-165)	5111B6009	5112B6009	—	—	16 (473)	4.7 (118)	9.7 (245)	1.5 (37)
	35-350(17-165)	—	—	5111B6011	5112B6011	16 (473)	4.3 (108)	8.9 (224)	0.8 (21)
1-1/4	10-450(5-212)	5111B7009	5112B7009	—	—	16 (473)	4.7 (118)	9.7 (245)	1.5 (37)
1-1/2	10-500(5-235)	5111B8009	5112B8009	—	—	16 (473)	4.7 (118)	9.7 (245)	1.5 (37)

*To order a lubricator with quick-fill cap, change the third digit from the end of the model number from "0" to "1," e.g., model 5111B5009 with quick-fill cap becomes model 5111B5109. **Plastic bowl includes metal bowl guard.

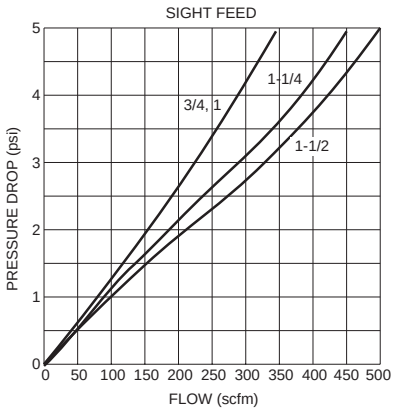
STANDARD SPECIFICATIONS

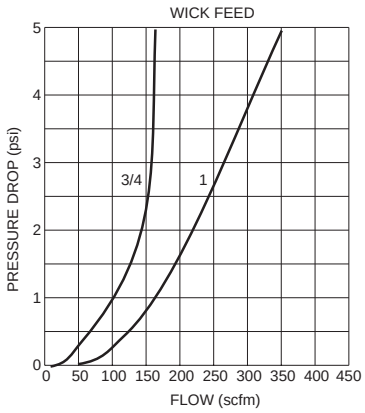
Ambient/Media Temperature:
Plastic Bowl: 40° to 125°F (4° to 52°C).
Metal Bowl: 40° to 150°F (4° to 66°C).

Maximum Inlet Pressure:
Plastic Bowl: 150 psig (10 bar).
Metal Bowl: 200 psig (14 bar).

See* Compatible Lubricants *and CAUTIONS about polycarbonate plastic bowls on page 25.

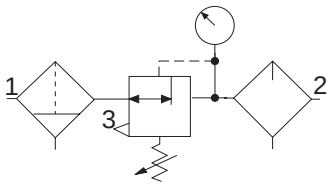
(Inlet Pressure: 100 psig)

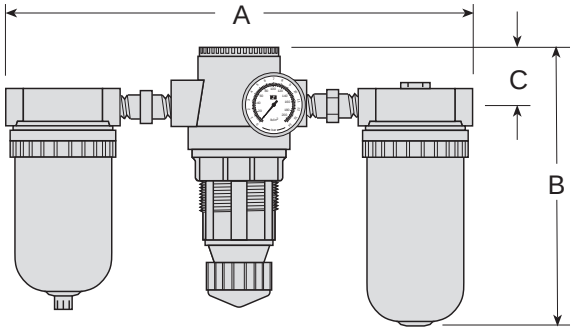




HIGH-CAPACITY Combined Units

Ports: 3/4 to 1
Flow to 275 scfm





For combinations of units other than those shown below see page 31.

STANDARD SPECIFICATIONS

Ambient/Media Temperature:
Plastic Bowl: 40° to 125°F (4° to 52°C).
Metal Bowl: 40° to 150°F (4° to 66°C).
Regulator: 40° to 175°F (4° to 80°C).

Maximum Inlet Pressure: With automatic drain, inlet pressure must be at least 15 psig (1 bar).
Plastic Bowl: 150 psig (10 bar).
Metal Bowl: 200 psig (14 bar).
Regulator: 250 psig (17 bar).

COMBINATION FILTER & REGULATOR*

Port Size	Automatic Drain Models: Plastic Bowl**	Automatic Drain Models: Metal Bowl	Manual Drain Models: Plastic Bowl**	Manual Drain Models: Metal Bowl	Dimensions inches (mm): A	B	C
3/4	5H00C5110	5H00C5210	5H00C5310	5H00C5410	9.6 (245)	10.5 (265)	2.5 (62)
1	5H00C6110	5H00C6210	5H00C6310	5H00C6410	9.6 (245)	10.5 (265)	2.5 (62)

*Piston type; regulated pressure 0 – 100 psig (6.9 bar); gauge included. **Plastic bowl includes metal bowl guard.

COMBINATION FILTER & LUBRICATOR

3/4	5H00B5101	5H00B5202	5H00B5301	5H00B5402	9.9 (252)	9.7 (245)	1.5 (37)
1	5H00B6101	5H00B6202	5H00B6301	5H00B6402	9.9 (252)	9.7 (245)	1.5 (37)

**Plastic bowl includes metal bowl guard.

COMBINATION FILTER, REGULATOR* & LUBRICATOR

3/4	5H00C5111	5H00C5212	5H00C5311	5H00C5412	16.1 (408)	10.7 (270)	2.5 (62)
1	5H00C6111	5H00C6212	5H00C6311	5H00C6412	16.1 (408)	10.7 (270)	2.5 (62)

*Piston type; regulated pressure 0 – 100 psig (6.9 bar); gauge included. **Plastic bowl includes metal bowl guard.

Lubricants, Polycarbonate Bowl Cautions

Compatible Lubricants

Although air line lubrication is not required for most ROSS valves, other mechanisms in the system may need such lubrication. When a lubricator is used it should be supplied only with oils which are compatible with the materials used in the valves for seals and poppets. Generally speaking, these are petroleum base oils with oxidation inhibitors, and aniline point between 180°F (82°C) and 220°F (104°C) and an ISO 32, or lighter, viscosity. Oils with phosphate type additives, such as zinc dithiophosphate, must be avoided because they can harm polyurethane valve components.

The best oils to use in pneumatic systems are those specifically compounded for air line lubricator service.

Cautions on the Use of Polycarbonate Plastic Bowls

Use Only with Compressed Air. Filters and lubricators with polycarbonate plastic bowls are specifically designed for compressed air service, and their use with any other fluid (liquid or gas) is a misapplication. The use with or injection of certain hazardous fluids in the system (e.g., alcohol or liquified petroleum gas) could be harmful to the plastic bowl or result in a combustible condition or hazardous leakage. Before using with a fluid other than air, or for non-industrial applications, or for life support systems, consult ROSS.

Use Metal Bowl Guard When Supplied. A metal bowl guard is supplied with all but the smallest bowls, and must always be used to minimize danger from fragmentation in the event of failure of a plastic bowl.

Avoid Harmful Substances. Some compressor oils, chemical cleaners, solvents, paints, and fumes will attack plastic bowls and can cause bowl failure. Do not use with or near these materials. When a bowl becomes dirty, replace the bowl or wipe it with a clean dry cloth. Immediately replace any plastic bowl which is crazed, cracked, or deteriorated.

Substances HARMFUL to Polycarbonate Plastic Bowls

Acetaldehyde
Acetic acid
Acetone
Acrylonitrile
Ammonia
Ammonium fluoride
Ammonium hydroxide
Ammonium sulfide
Anaerobic adhesives & sealants
Antifreeze
Benzene
Benzoic acid
Benzyl alcohol
Brake fluids
Bromobenzene
Butyric acid
Carbolic acid
Carbon disulfide
Carbon tetrachloride
Caustic potash solution
Caustic soda solution
Chlorobenzene
Chloroform
Cresol
Cyclohexanol
Cyclohexanone
Cyclohexene
Dimethyl formamide
Dioxane
Ethane tetrachloride
Ethyl acetate
Ethyl ether
Ethylamine
Ethylene chlorohydrin
Ethylene dichloride
Ethylene glycol
Formic acid
Freon (refrigerant & propellant)
Gasoline (high aromatic)
Hydrazine
Hydrochloric acid
Lacquer thinner
Methyl alcohol
Methylene chloride
Methylene salicylate
Milk of lime (CaOH)
Nitric acid
Nitrobenzene
Nitrocellulose lacquer
Phenol
Phosphorous hydroxyl chloride
Phosphorous trichloride
Propionic acid
Pyridine
Sodium hydroxide
Sodium sulfide
Styrene
Sulfuric acid
Sulfural chloride
Tetrahydronaphthalene
Thiophene
Toluene
Turpentine
Xylene
Perchlorethylene

Trade Names of Substances HARMFUL to Polycarbonate Plastic Bowls

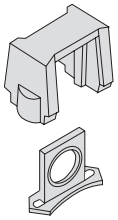
• Atlas Perma-Guard • Buna N • Cellulube #150 & #220 • Crylex #5 cement • Eastman 910 • Garlock 98403 (polyurethane) • Haskel 568-023 • Hilgard Company's hil phene • Houghton & Co. oil 1120, 1130, 1055 • Houtosafe 1000 • Kano Kroil • Keystone penetrating oil #2 • Loctite 271, 290, 601 • Loctite Teflon sealant • Marvel Mystery Oil • Minn. Rubber 366Y • National Compound N11 Nylock VC-3 • Parco 1306 Neoprene • Permabond 910 • Petron PD287 • Prestone • Pydraul AC • Sears Regular Motor Oil • Sinclair oil "Lily White" • Stauffer Chemical FYRQUEL 150 • Stillman SR 269-75 (polyurethane) • Stillman SR 513-70 (neoprene) • Tannergas • Telar • Tenneco anderol 495 & 500 oils • Titon • Vibra-tite • Zerex

NOTE: Because we cannot list all substances harmful to polycarbonate plastic, consult a Mobay Chemical or General Electric office for further information.

Components for Modular Assembly

MID-SIZE and FULL-SIZE Units

The modular designs of the MID-SIZE and FULL-SIZE series offer maximum flexibility in customizing FRL assemblies. As shown at the right, connector kits are required to interconnect units. Various port kits (shown below) can be used to connect the assemblies to the inlet and outlet piping. Note that all FRL components have threaded ports so that conventional pipe fittings may be used where desired.



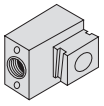
Connector Kit 892K77. Used to connect units to one another as well as to any of the ports shown on this page.

Female Port Kits. Used to connect to piping at inlet or outlet.

1/4	**897K77**
3/8	**898K77**
1/2	**899K77**
3/4	**900K77**

Male Port Kits. Used to connect modular to non-modular units. Also allows 90-degree connections using side, bracket, or extra port kits.

1/4	**893K77**
3/8	**894K77**
1/2	**895K77**
3/4	**896K77**



Bracket Port Kits. Allows units to be panel mounted. Uses 1/4 (M6) mounting bolts. 90-degree port is 1/2.

Front mounting	**910K77**
Back mounting	**1004K77**

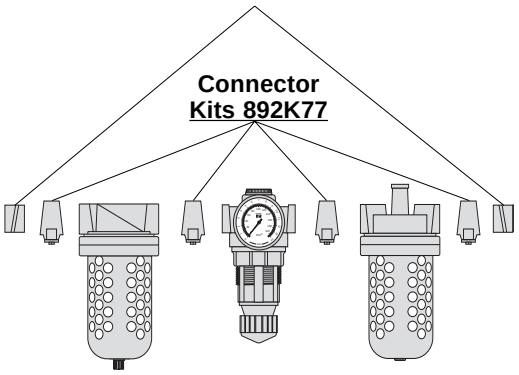
Extra Port Kit 901K77. Used before or after any modular unit to supply three auxiliary 1/4 outlet ports.

Side Port Kits. Functions as a 90-degree female port. Three types: (1) port at front or back; (2) port at top; (3) port at bottom.

	Front/Back	Top	Bottom
1/4	**902K77**	**906K77**	**1000K77**
3/8	**903K77**	**907K77**	**1001K77**
1/2	**904K77**	**908K77**	**1002K77**
3/4	**905K77**	**909K77**	**1003K77**

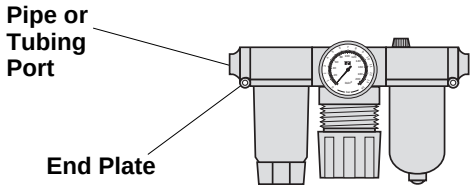
Mounting Bracket Kit 915K77. L-shaped metal brackets (not illustrated) are used for wall mounting modular assemblies. Kit contains two brackets and four screws for attaching brackets to tops of modular units.

Female Port Kits or
other port kits shown below



MID-SIZE and FULL-SIZE Modular Assembly

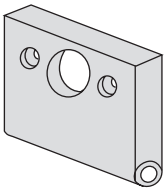
BANTAM Units

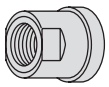


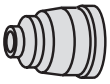
BANTAM modular units use end plates secured with screws to hold the pipe or tubing ports (see below), and also to serve as mounting brackets. Short screws are used to secure the end plates when a single Bantam unit is used. If two or more units are combined, long screws extend through an end plate and thread into the next unit. Screw kits required are as follows:

Single Unit:	Two short screw kits.
Two-Unit Combination:	One each short screw kit and long screw kit.
Three-Unit Combination:	Two long screw kits.

END PLATE (1):		**857K77**
Short Screw (2):		**858K77**
Long Screw (2):		**859K77**
O-Rings	For inlet or mating ports:	**860K77**
	For outlet or mating ports:	**861K77**
Pipe Ports	1/8 NPT	**862K77**
	1/4 NPT	**863K77**
	1/8 BSP	**D864K77**
	1/4 BSP	**D865K77**
Tube Ports	1/4	**866K77**
	3/8	**867K77**
	4 mm	**868K77**
	6 mm	**869K77**
	8 mm	**870K77**
	10 mm	**871K77**



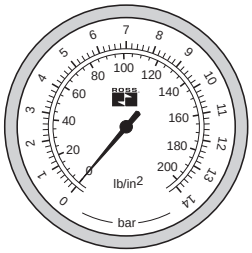




Gauges, Shutoff Valve, Mounting Brackets

PRESSURE GAUGES: Center back mounting; male pipe threads.

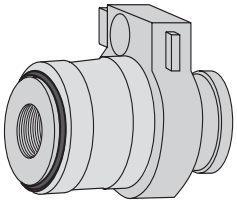
Port Size	Model Numbers	Pressure Range psig (bar)	Case Diameter inches (mm)
1/8	**54**00A1002	0 – 160 (11)	1.5 (38)
1/4	**54**00A2010	0 – 60 (4)	2.0 (51)
	5400A2011	0 – 200 (14)	2.0 (51)
	5400A2012	0 – 300 (21)	2.0 (51)



FRL SERVICE SHUTOFF VALVE

A 3-way line-mounted sleeve valve is used to shut off air flow to the FRL unit and gradually exhaust downstream air to allow servicing of the FRL unit. The valve can be padlocked in the closed position with any padlock having a shackle from 1/4 to 5/16 inch in diameter.

To exhaust and isolate downstream equipment from the energy source, a full line of larger shutoff (L-O-X®) valves is available from ROSS.



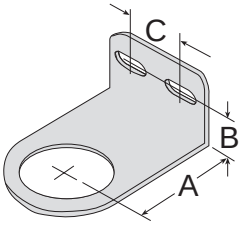
Order by the following part numbers:

1/4	**911K77**
3/8	**912K77**
1/2	**913K77**
3/4	**914K77**

MOUNTING BRACKETS

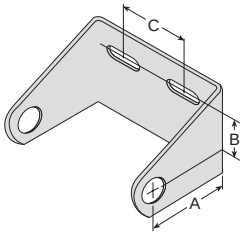
REGULATORS: Bracket or Panel Mounting

Regulator Series	BRACKET MTG. Bracket	BRACKET MTG. Bracket and Nut	PANEL MTG. Nut	PANEL MTG. Panel Hole	Dimensions inches (mm) A	B	C
Miniature, Bantam	872K77	873K77	874K77	1.2 (30)	1.3 (33)	0.4 (10)	0.7 (17)
Mid-Size	875K77	876K77	877K77	1.6 (40)	2.4 (60)	1.0 (25)	1.5 (38)
Full-Size, High-Capacity	878K77	879K77	880K77	2.1 (50)	2.4 (60)	1.0 (25)	1.5 (38)



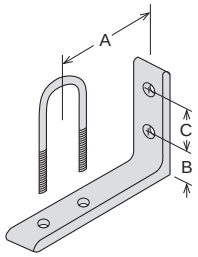
FILTERS and LUBRICATORS: Brackets for Non-Modular Units

Series		Bracket	Dimensions inches (mm) A	B	C
Bantam		Use screw kit 859K77 for long screws that extend through end plates. See page 26.			
Mid-Size and Full-Size		See bracket 915K77 for modular units on page 26.			
High Capacity	3/4 Ports	885K77	2.5 (64)	1.5 (38)	2.1 (54)
	1 Ports	886K77	2.5 (64)	1.5 (38)	2.1 (54)



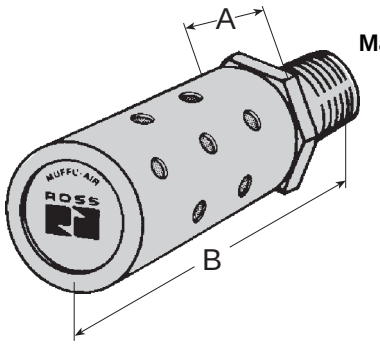
ASSEMBLIES: Pipe brackets, 2 per kit. For mounting of two or more units assembled with pipe nipples.

Pipe Size	Kit Numbers	Dimensions inches (mm) A	B	C
1/4	887K77	2.7 (69)	0.5 (13)	1.0 (25)
3/8	888K77	2.7 (69)	0.5 (13)	1.0 (25)
1/2	889K77	2.7 (69)	0.5 (13)	1.0 (25)
3/4	890K77	3.7 (94)	1.1 (29)	1.3 (32)
1	891K77	3.7 (94)	1.1 (29)	1.3 (32)

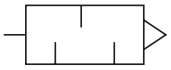


MUFFL-AIR® Silencers

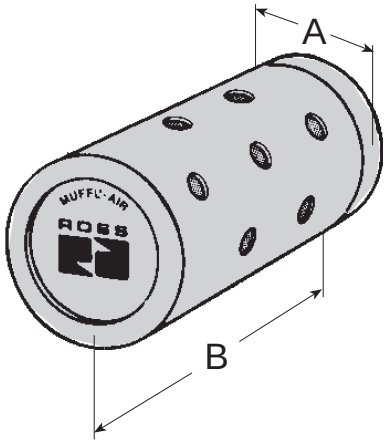
Ports: 1/8 to 2-1/2
C_v: 2.0 to 65



Male Threads



Female Threads



ROSS MUFFL-AIR® silencers substantially reduce exhaust noise levels in the workplace, yet produce little back pressure. Typical impact noise reduction is in the 20–25 decibel range.

Construction: aluminum shell up to 1/2 size; steel and zinc shell for 3/4 and 1 sizes; steel shell for 1-1/4 to 2-1/2 sizes. Diffuser is brass cloth.

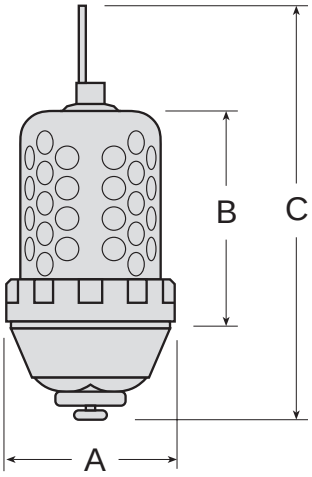
Pressure Range: Up to 150 psig (10 bar).

Temperature: Up to 160°F (71°C).

Port Size	Average C_v	Model Numbers	Threads	Dimensions inches (mm) A	B
1/8	2.0	5500A1003	Male	0.8 (21)	2.0 (51)
1/4	2.0	5500A2003	Male	0.8 (21)	2.0 (51)
3/8	2.0	5500A3013	Male	1.3 (33)	3.3 (83)
	5.7	5500A3003	Male	1.3 (33)	3.3 (83)
1/2	7.0	5500A4003	Male	1.3 (33)	3.3 (83)
3/4	7.0	5500A5013	Male	1.3 (33)	3.3 (83)
	15	5500A5003	Male	2.0 (51)	4.9 (124)
1	18	5500A6003	Male	2.0 (51)	4.9 (124)
1-1/4	18	5500A7013	Male	2.5 (64)	5.9 (150)
	37	5500A7001	Female	2.5 (64)	5.9 (150)
1-1/2	38	5500A8001	Female	2.5 (64)	5.9 (150)
2	50	5500B9001	Female	3.0 (77)	7.3 (185)
2-1/2	65	5500A9002	Female	4.0 (102)	6.9 (173)

External Drains, Silencer/Reclassifiers

AUTOMATIC EXTERNAL DRAINS



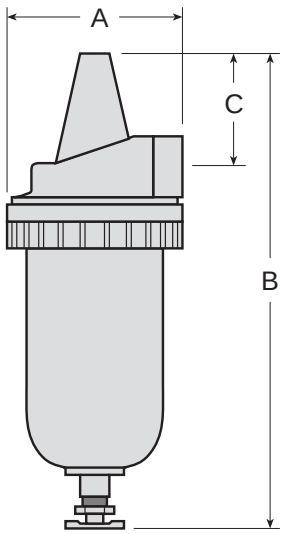
For use where severe condensate problems exist. These drains are used with FULL-SIZE or HIGH-CAPACITY filters, but can also be used to drain water separators, drain legs, or compressor receiver tanks.

When liquid is present, it is drained regardless of air flow, and there is no loss of air. Discharge rate is approximately 5 gallons per minute at 100 psig. Drain can also be operated manually.

Pipe Size	Model Numbers Plastic Bowl**	Metal Bowl	Dimensions inches (mm) A	B	C
1/8	5057B1001	5058B1001	3.5 (89)	4.2 (107)	8.4 (212)
1/4*	5057B2001	5058B2001	3.5 (89)	4.2 (107)	8.4 (212)

*Use 1/4 size with Full-Size or High-Capacity filters. Use kit 107677 to convert standard bowl to accept auto drain unit.
**Plastic bowl includes metal bowl guard.

SILENCER/RECLASSIFIERS



These are integral air-silencer and oil-separation devices. When installed at the exhaust ports of pneumatic valves they capture over 90 percent of the exhausted lubricants. They also reduce exhaust noise to 80 to 85 dba under standardized, steady state conditions, and to 106 dba under impact noise conditions.

These units help to meet OSHA requirements for noise and oil mist control. They have been approved by the major automotive manufacturers, and are used on valve-cylinder applications and on air tools with piped exhausts.

Both a drain cock and a 1/8 tube fitting are supplied for either manual or automatic draining of accumulated liquids.

Pipe Size	Model Numbers	Dimensions inches (mm) A	B	C
1/2	5055B4009	3.5 (89)	6.2 (158)	0.7 (18)
3/4	5055B5009	4.2 (107)	11.1 (282)	2.7 (69)
1	5055B6009	4.2 (107)	11.1 (282)	2.7 (69)

See* Compatible Lubricants *and CAUTIONS about polycarbonate plastic bowls on page 25.

Model Numbering for Combinations

If your specific needs for a combination of filter, regulator, or lubricator are not met by those model numbers listed earlier in this section, you can build your own model number to your own specifications using symbols selected from the lists below. See page 26 for descriptions of modular ports.

BANTAM Model No. 5B * * B0 * * *

CONNECTIONS
01 = 1/8 NPT female
02 = 1/4 NPT female
03 = 1/4 tube port
04 = 3/8 tube port
05 = 4 mm tube port
06 = 6 mm tube port
07 = 8 mm tube port
08 = 10 mm tube port
00 = No ports

FILTER
0 = None
1 = Automatic drain, plastic bowl
2 = Automatic drain, metal bowl
3 = Manual drain, plastic bowl
4 = Manual drain, metal bowl

REGULATOR
0 = None
1 = Piston, 0–100 psig
2 = Diaphragm, 0–100 psig
3 = Piston, 0–50 psig
4 = Diaphragm, 0–50 psig
5 = Piston, 0–125 psig
6 = Diaphragm, 0–125 psig

LUBRICATOR (Wick-feed type)
0 = None
5 = Plastic bowl
6 = Metal bowl
7 = Plastic bowl, quick-fill cap
8 = Metal bowl, quick-fill cap

For a model with a consolidated filter/regulator, change **5B** to **5D**, e.g., **5D**01B0115.

MID-SIZE Model No. 5M * * B * * * *

CONNECTIONS
00 = NPT pipe in, out, between
09 = NPT pipe in & out, modular between
10 = Modular, male ports in & out
11 = Modular, female ports in & out
12 = Modular, front side ports in & out
13 = Modular, back side ports in & out
14 = Modular, top side ports in & out
15 = Modular, bottom side ports in & out
16 = Modular, front bracket ports in & out
17 = Modular, back bracket ports in & out

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

For a model with a consolidated filter/regulator, change **5M** to **5N**, e.g., **5N**11B2111.

FILTER
0 = None
1 = Automatic drain, plastic bowl
2 = Automatic drain, metal bowl
3 = Manual drain, plastic bowl
4 = Manual drain, metal bowl

REGULATOR (Piston type)
0 = None
1 = 0–100 psig
3 = 0–50 psig
5 = 0–150 psig

LUBRICATOR (Sight-feed type)
0 = None
1 = Plastic bowl
2 = Metal bowl
3 = Plastic bowl, quick-fill cap
4 = Metal bowl, quick-fill cap

Model Numbering for Combinations

If your specific needs for a combination of filter, regulator, or lubricator are not met by those model numbers listed earlier in this section, you can build your own model number to your own specifications using symbols selected from the lists below. See page 26 for descriptions of modular ports.

FULL-SIZE Model No. 5F ** B ****

CONNECTIONS
00 = NPT pipe in, out, between
09 = NPT pipe in & out, modular between
10 = Modular, male ports in & out
11 = Modular, female ports in & out
12 = Modular, front side ports in & out
13 = Modular, back side ports in & out
14 = Modular, top side ports in & out
15 = Modular, bottom side ports in & out
16 = Modular, front bracket ports in & out
17 = Modular, back bracket ports in & out

PIPE SIZE
2 = 1/4
3 = 3/8
4 = 1/2
5 = 3/4

For a model with a consolidated filter/regulator, change **5F** to **5E**, e.g., **5E**11B2121.

LUBRICATOR
0 = None
1 = Sight-feed, plastic bowl
2 = Sight-feed, metal bowl
3 = Sight feed, plastic bowl, quick-fill cap
4 = Sight-feed, metal bowl, quick-fill cap
5 = Wick-feed, plastic bowl
6 = Wick-feed, metal bowl
7 = Wick-feed, plastic bowl, quick-fill cap
8 = Wick-feed, metal bowl, quick-fill cap

REGULATOR (Diaphragm type)
0 = None
2 = 0–125 psig
4 = 0–50 psig
6 = 0–175 psig

FILTER
0 = None
1 = Automatic drain, plastic bowl
2 = Automatic drain, metal bowl
3 = Manual drain, plastic bowl
4 = Manual drain, metal bowl

HIGH-CAPACITY Model No. 5H00 *****

PIPE SIZE
5 = 3/4
6 = 1
7 = 1-1/4
8 = 1-1/2

FILTER
0 = None
1 = Automatic drain, plastic bowl
2 = Automatic drain, metal bowl
3 = Manual drain, plastic bowl
4 = Manual drain, metal bowl

LUBRICATOR
0 = None
1 = Sight-feed, plastic bowl
2 = Sight-feed, metal bowl
3 = Sight feed, plastic bowl, quick-fill cap
4 = Sight-feed, metal bowl, quick-fill cap
5 = Wick-feed, plastic bowl
6 = Wick-feed, metal bowl
7 = Wick-feed, plastic bowl, quick-fill cap
8 = Wick-feed, metal bowl, quick-fill cap

REGULATOR
0 = None
1 = Piston, 0–100 psig
8 = Internal pilot, 15–200 psig

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