

03 Miniature FRL Series

Catalog 601



WILKERSON®

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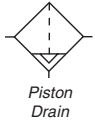
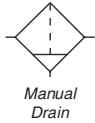
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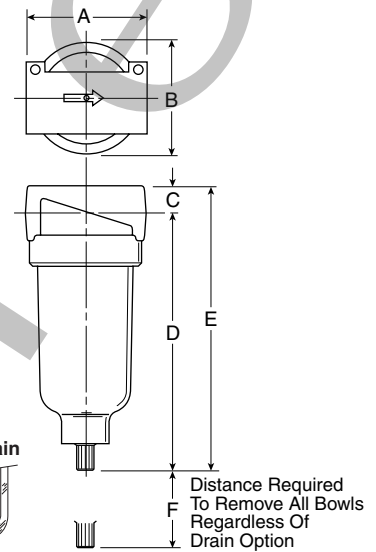
PHENOLAIR

F03 Filters – Miniature



Features

- Excellent water removal efficiency.
- Unique deflector plate that creates swirling of the air stream ensuring maximum water and dirt separation.
- Easily disassembled for servicing without the use of tools.
- 5 micron rated element.
- High Flow: 1/8" – 22 SCFM ‡
 1/4" – 24 SCFM ‡



Piston Drain

Accepts 1/8" Tubing

Model Type	Port Size	Polycarbonate Bowl	Metal Bowl
Manual Drain	1/8	F03-01-000	F03-01-M00
	1/4	F03-02-000	F03-02-M00
Piston Drain	1/8	F03-01-D00	F03-01-DM0
	1/4	F03-02-D00	F03-02-DM0

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number. For additional information on accessories and repair kits refer to the Table of Contents.

F03 Filter Dimensions		
A	B	C
1.69 (43)	1.53 (39)	.39 (10)
D	D†	E
3.82 (97)	3.87 (99)	4.21 (107)
E†	F	
4.26 (108)	1.60 (41)	

Inches (mm)

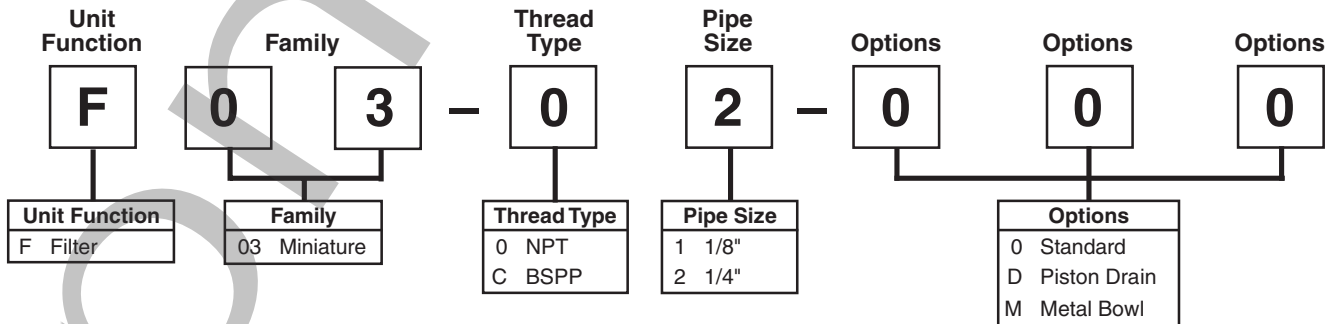
† With Piston Drain

Standard part numbers shown, for other models refer to ordering information below.

‡ For polycarbonate bowl see Caution on Inside Front Cover.

§ SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.

Ordering Information

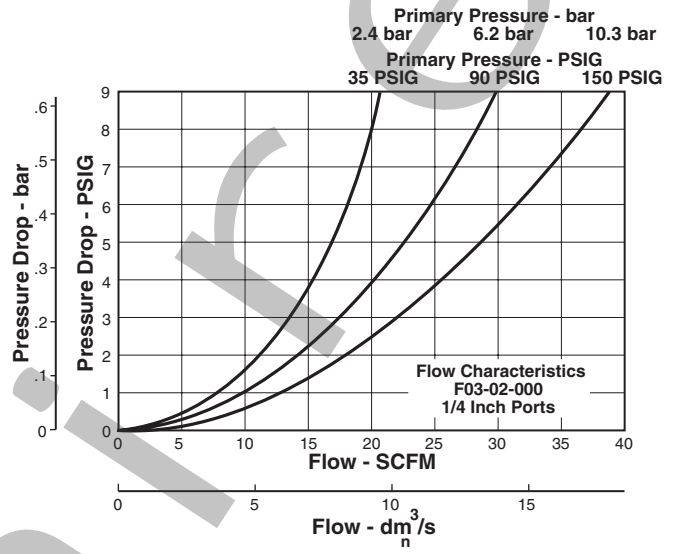
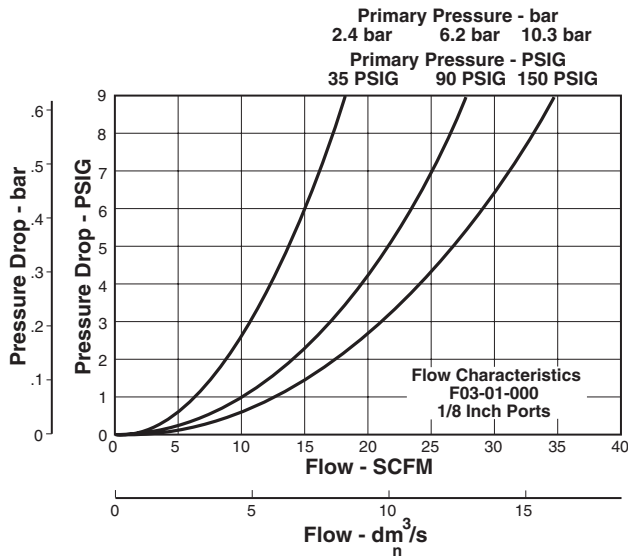


Note: When selecting from the options columns, please enter letters in alphabetical order for positions 6, 7, and 8.

For example: **F 0 3 - 0 1 - D M 0**

NOTE: 000 in position 6, 7, and 8 signifies standard product.
 (Poly Bowl, Manual Drain, 5 Micron Element)

Technical Information



F03 Filter Kits & Accessories

Bowl Kits –	
Poly Bowl – Piston Drain	PS408B
Manual Drain	PS404
Metal Bowl – Piston Drain	PS451B
Manual Drain	PS447B
Filter Element Kit – 5 Micron	PS403
Mounting Bracket Kit	PS417B

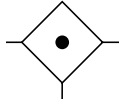
Specifications

Bowl Capacity	1 Ounce
Port Threads	1/8, 1/4 Inch
Pressure & Temperature Ratings –	
Polycarbonate Bowl – 0 to 150 PSIG (0 to 10.3 bar) 32°F to 125°F (0°C to 52°C)	
Metal Bowl – 0 to 250 PSIG (0 to 17.2 bar) 32°F to 175°F (0°C to 80°C)	
Piston Drain – 10 to 250 PSIG (0.7 to 17.2 bar) at 125°F (52°C) or less	
Weight41 lb. (.18 kg)

Materials of Construction

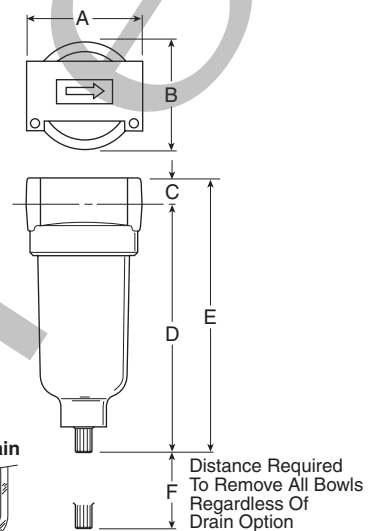
Body	Zinc
Bowls – Transparent	Polycarbonate
Metal (Without Sight Gauge)	Zinc
Deflector, Element Holder & Baffle	Plastic
Drains	
Manual Drain –	
Body & Stem	Plastic
Seals	Nitrile
Piston Drain –	
Piston & Seals	Nitrile
Stem, Seat, Adaptor & Washers	Aluminum
Filter Elements – 5 Micron	Plastic
Seals	Nitrile

M03 Coalescing Filters – Miniature



Features

- Removes liquid aerosols and sub-micron particles.
- Liquids gravitate to the bottom of the element and will not re-enter the airstream.
- Oil free air for critical applications, such as air gauging and pneumatic instrumentation and controls.
- High Flow: .01 Type "C" Element
 1/8" – 17 SCFM §
 1/4" – 20 SCFM §



Piston Drain

Accepts 1/8" Tubing

Model Type	Port Size	Polycarbonate Bowl / "C" Element	Metal Bowl / "C" Element	Polycarbonate Bowl / 1.0 Micron Element	Polycarbonate Bowl / "D" Element
Manual Drain	1/8	M03-01-000	M03-01-M00	M03-01-S00	M03-01-X00
	1/4	M03-02-000	M03-02-M00	M03-02-S00	M03-02-X00
Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in position 6, 7, 8 of the model number. For additional information on accessories and repair kits refer to the Table of Contents.					

M03 Coalescing Filter Dimensions		
A	B	C
1.69 (43)	1.53 (39)	.39 (10)
D	D†	E
3.82 (97)	3.87 (99)	4.21 (107)
E†	F	
4.26 (108)	1.60 (41)	

Inches (mm)

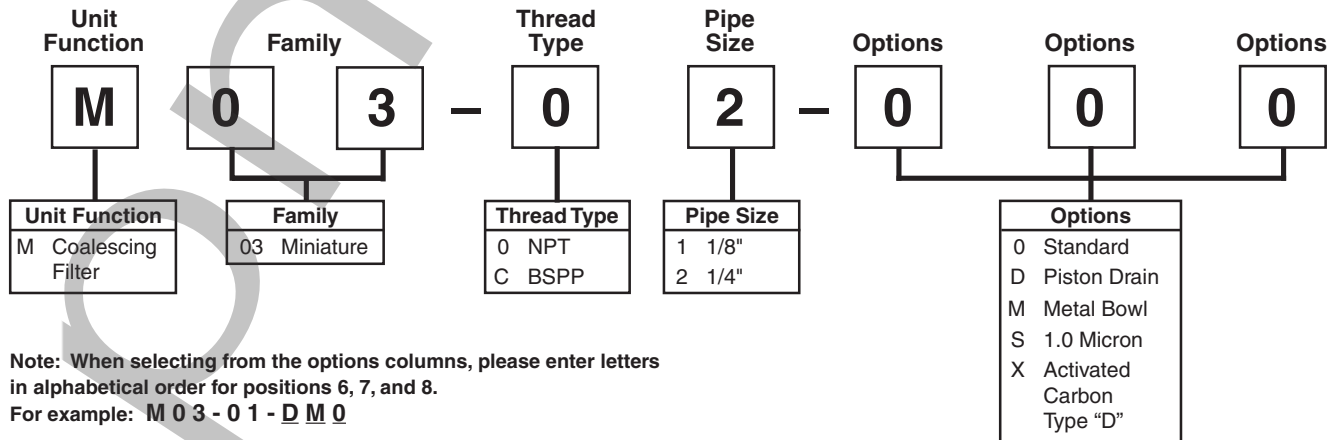
† With Piston Drain

Standard part numbers shown, for other models refer to ordering information below.

‡ For polycarbonate bowl see Caution on Inside Front Cover.

§ SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.

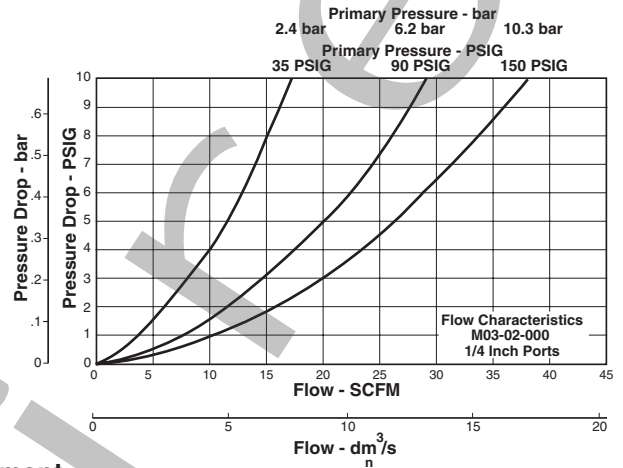
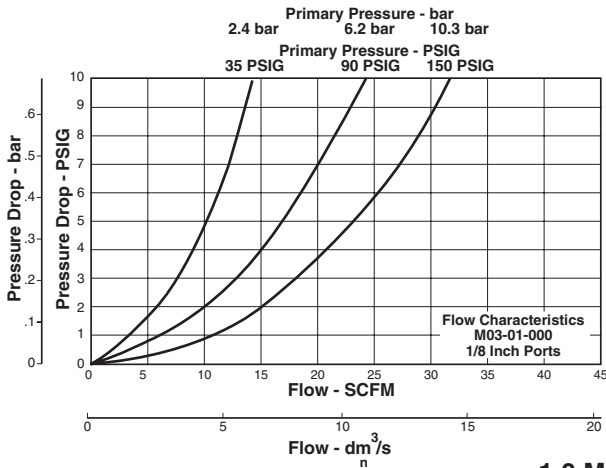
Ordering Information



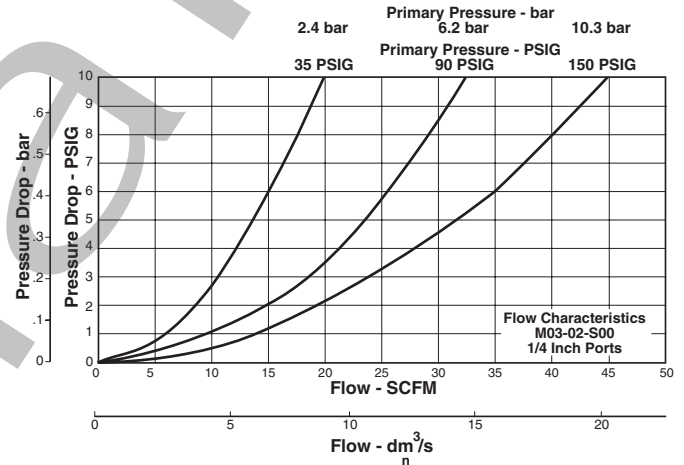
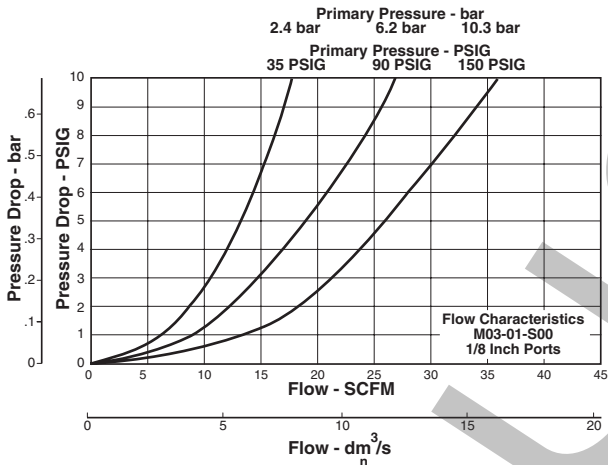
NOTE: 000 in position 6, 7, and 8 signifies standard product.
 (Poly Bowl, Manual Drain, .01 Micron "C" Element)

Technical Information

Type “C” Element



1.0 Micron Element



M03 Coalescing Filter Kits & Accessories

- Bowl Kits –**
- Poly Bowl – Piston Drain PS408B
- Manual Drain PS404
- Metal Bowl – Piston Drain PS451B
- Manual Drain PS447B
- Filter Element Kits –**
- Type “C” (Standard) PS446
- 1.0 Micron (Optional) PS456
- Type “D” (Optional) PS452
- Mounting Bracket Kit PS417B**

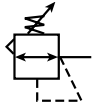
Specifications

- Bowl Capacity 1 Ounce**
- Operation –**
- Normal Operating Pressure Drop 2 PSIG
- Maximum Recommended Pressure Drop 10 PSIG
 (Element should be replaced)
- Port Threads 1/8, 1/4 Inch**
- Pressure & Temperature Ratings –**
- Polycarbonate Bowl – 0 to 150 PSIG (0 to 10.3 bar)
 32°F to 125°F (0°C to 52°C)
- Metal Bowl – 0 to 250 PSIG (0 to 17.2 bar)
 32°F to 175°F (0°C to 80°C)
- Piston Drain – 10 to 250 PSIG (0.7 to 17.2 bar)
 at 125°F (52°C) or less
- Weight41 lb. (.18 kg)**

Materials of Construction

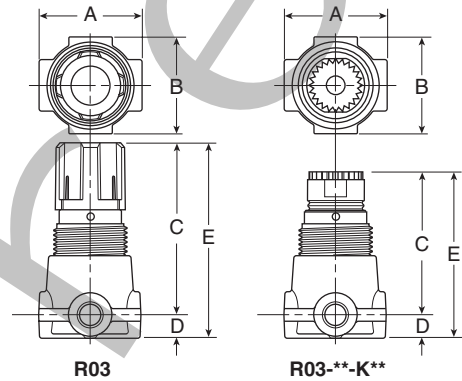
- Body Zinc**
- Bowls –** Transparent Polycarbonate
- Metal (Without Sight Gauge) Zinc
- Drains – Manual Drain –**
- Body & Stem Plastic
- Seals Nitrile
- Piston Drain –**
- Piston & Seals Nitrile
- Stem, Seat, Adaptor & Washers Aluminum
- Element Holder Plastic**
- Filter Elements Borosilicate & Felt Glass Fibers**
- Seals Nitrile**

R03 Regulators – Miniature



Features

- Unbalanced poppet standard.
- Solid control piston with lip seal for extended life.
- Non-rising adjusting knob.
- Compact, 3.08 inch (78mm) high by 1.65 inch (42mm) wide.
- Easily serviced.
- High Flow: 1/8" – 13 SCFM[§]
 1/4" – 15 SCFM[§]



Model Type	Port Size	Without Gauge 2 to 125 PSIG (0,2 to 8,6 bar)	Without Gauge 1 to 60 PSIG (0,2 to 4,1 bar)	Without Gauge 1 to 30 PSIG (0,2 to 2,1 bar)	Without Gauge 1 to 15 PSIG (0,2 to 1,0 bar)
Relieving	1/8	R03-01-000	R03-01-L00	R03-01-P00	R03-01-Q00
	1/4	R03-02-000	R03-02-L00	R03-02-P00	R03-02-Q00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in position 6, 7, 8 of the model number. For additional information on accessories and repair kits refer to the Table of Contents.

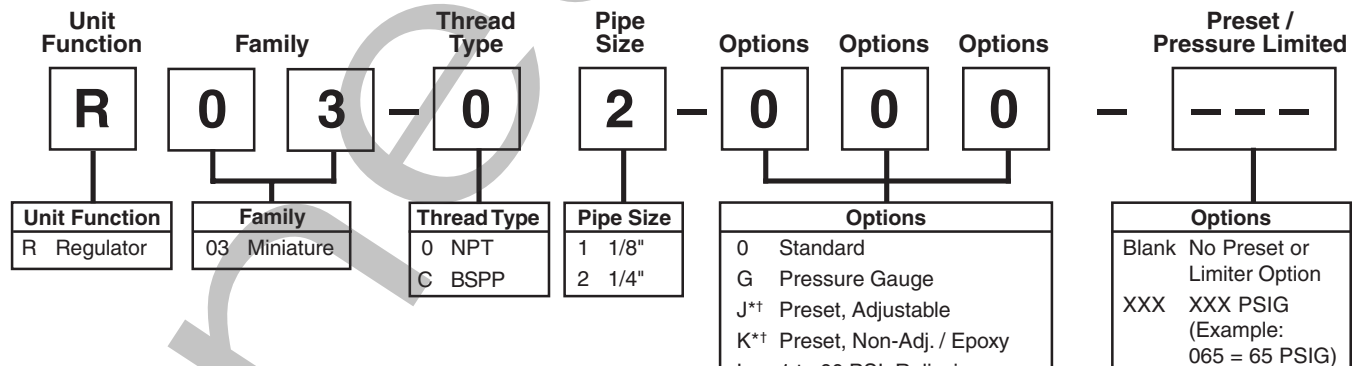
Standard part numbers shown, for other models refer to ordering information below.

NOTE: 1.218 Dia. (31mm) hole required for panel mounting.

§ SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no flow secondary setting and 10 PSIG pressure drop.

	A	B	C	D	E
R03	1.65 (42)	1.56 (40)	2.76 (70,1)	.38 (9,6)	3.14 (79,8)
R03-**-K**	1.65 (42)	1.56 (40)	2.28 (57,9)	.38 (9,6)	2.66 (67,6)

Ordering Information



Note: When selecting from the options columns, please enter letters in alphabetical order for positions 6, 7, and 8.
 For example: **R 0 3 - 0 1 - G L 0**

Note: 000 in position 6, 7, and 8 signifies standard product. (2 to 125 PSIG, Relieving)

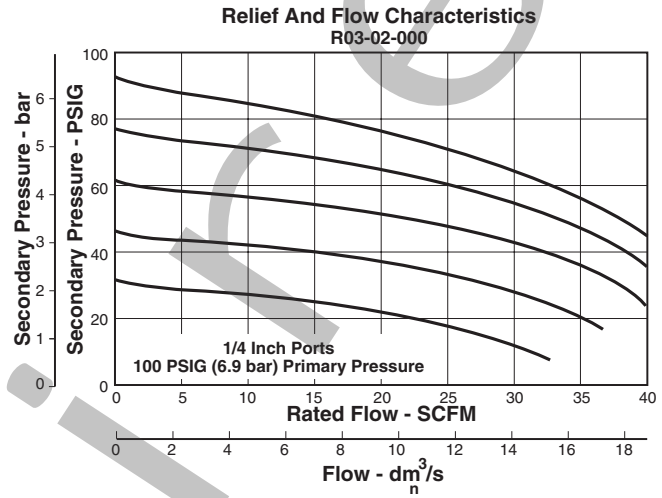
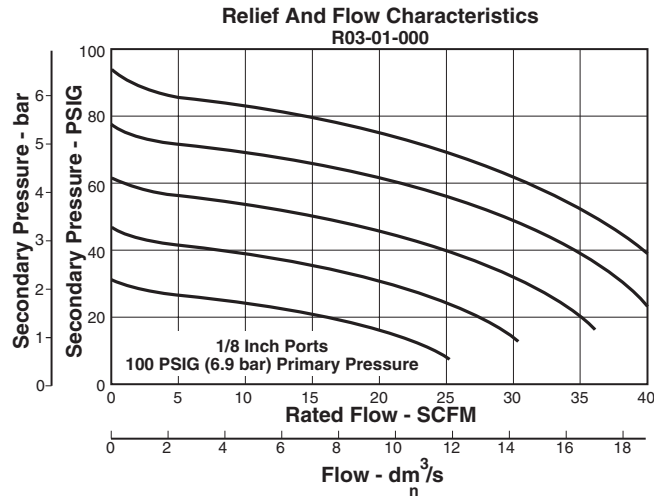
Spring Type by Preset / Limited Pressure:

- For Preset / Limited Pressure 10 to 25 use 30 PSI Spring
- For Preset / Limited Pressure 26 to 50 use 60 PSI Spring
- For Preset / Limited Pressure 51 to 90 use 125 PSI Spring

* Inlet pressure is 100 PSIG. For other pressures, consult factory.

† Must specify preset or limited pressure.

Technical Information



CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

R03 Regulator Kits & Accessories

Poppet Valve Kit	PS424B
Gauges – 30 PSIG, 1/8" NPT (0 to 2,1 bar)	P530156
60 PSIG, 1/8" NPT (0 to 4,1 bar)	P530154
160 PSIG, 1/8" NPT (0 to 11,0 bar)	P77413
Mounting Bracket Kit (Includes Panel Mount Nut)	PS417B
Panel Mount Nuts – Plastic	P78652
Metal	P01531
Service Kits – Non-Relieving	PS422
Relieving	PS423
Springs – 1-30 PSIG Range	P01175
1-60 PSIG Range	P01174
2-125 PSIG Range	P01173
1-15 PSIG Range	P01176

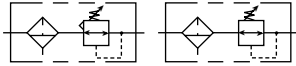
Specifications

Gauge Ports (2)	1/8
Port Threads	1/8, 1/4 Inch
Pressure & Temperature Ratings – 0 to 300 PSIG (0 to 20,7 bar)	
32°F to 125°F (0°C to 52°C)	
Secondary Pressure Ranges –	
Standard Pressure	2 to 125 PSIG (0 to 8,6 bar)
Medium Pressure	1 to 60 PSIG (0 to 4,1 bar)
Medium Pressure	1 to 30 PSIG (0 to 2,1 bar)
Low Pressure	1 to 15 PSIG (0 to 1,0 bar)
Weight3 lb. (.14 kg)

Materials of Construction

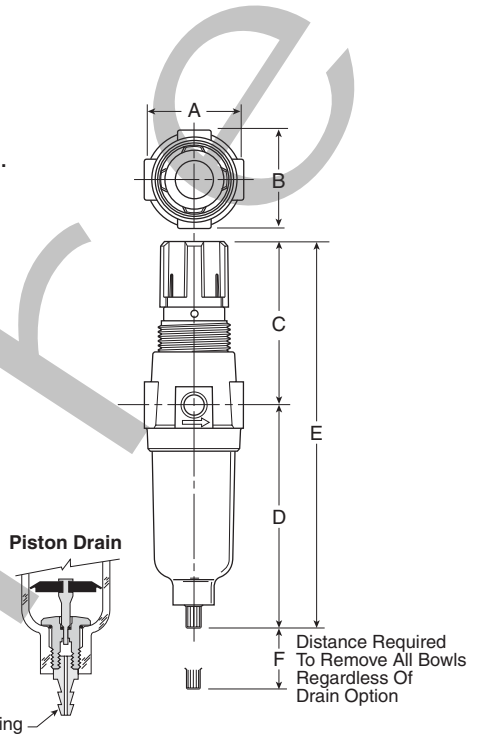
Adjusting Nut	Brass
Adjusting Stem & Spring	Steel
Body	Zinc
Bonnet, Seat, Piston & Valve Poppet	Plastic
Seals	Nitrile

B03 Filter / Regulator – Miniature



Features

- Excellent water removal efficiency.
- Unbalanced poppet standard.
- Solid control piston for extended life.
- Space saving package offers both filter and regulator features in one integral unit.
- Non-rising adjustment knob.
- Two full flow 1/8" gauge ports.
- High Flow: 1/8" – 16 SCFM[§]
 1/4" – 18 SCFM[§]



Model Type	Port Size	Polycarbonate Bowl	Metal Bowl
Manual Drain	1/8	B03-01-0000	B03-01-M000
	1/4	B03-02-0000	B03-02-M000
Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number. For additional information on accessories and repair kits refer to the Table of Contents.			

B03 Regulator Dimensions			
A	B	C	D
1.62 (41)	1.58 (40)	2.68 (68)	3.79 (96)
D†	E	E†	F
3.84 (98)	6.47 (164)	8.89 (226)	1.60 (41)

Inches (mm)
 † With Piston Drain

Standard part numbers shown, for other models refer to ordering information below.

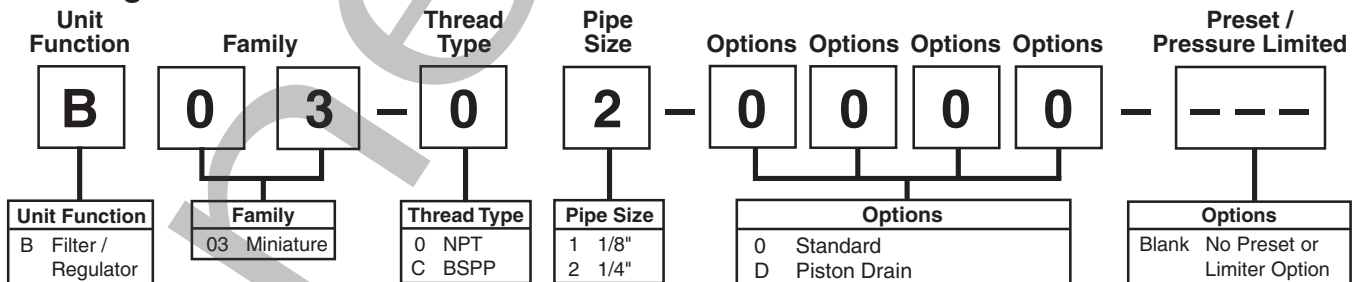
‡ For polycarbonate bowl see Caution on Inside Front Cover.

§ SCFM = Standard cubic feet per minute at 100 PSIG inlet,

90 PSIG no flow secondary setting and 10 PSIG pressure drop.

NOTE: 1.218 Dia. (31mm) hole required for panel mounting.

Ordering Information



Note: When selecting from the options columns, please enter letters in alphabetical order for positions 6, 7, 8 and 9.

For example: **B 0 3 - 0 1 - D M 0 0**

NOTE: 0000 in position 6, 7, 8 and 9 signifies standard product.

(Poly Bowl, Manual Drain, 2 to 125 PSIG, Relieving)

Spring Type by Preset / Limited Pressure:

For Preset / Limited Pressure 10 to 25 use 30 PSI Spring

For Preset / Limited Pressure 26 to 50 use 60 PSI Spring

For Preset / Limited Pressure 51 to 90 use 125 PSI Spring

Options	
0	Standard
D	Piston Drain
G	Pressure Gauge
J*†	Preset, Adjustable
K*†	Preset, Non-Adj. / Epoxy
L	1 to 60 PSI, Relieving
M*	Metal Bowl
N	2 to 125 PSI, Non-Relieving
P	1 to 30 PSI, Relieving
Q	1 to 15 PSI, Relieving
R*†	Pressure Limiter
S	1 to 60 PSI, Non-Relieving
T	1 to 30 PSI, Non-Relieving
U	1 to 15 PSI, Non-Relieving

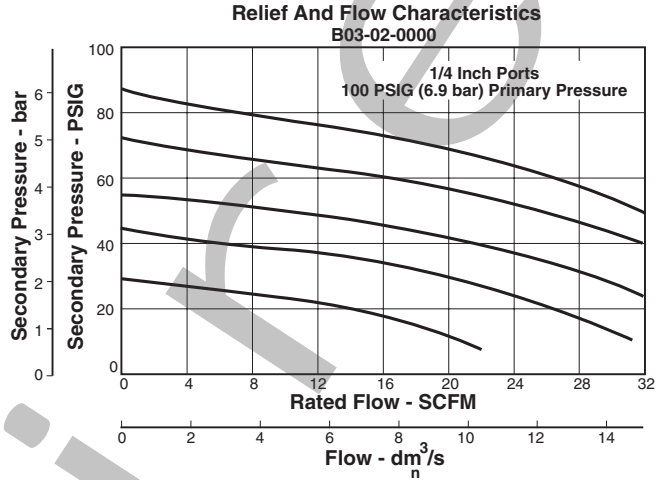
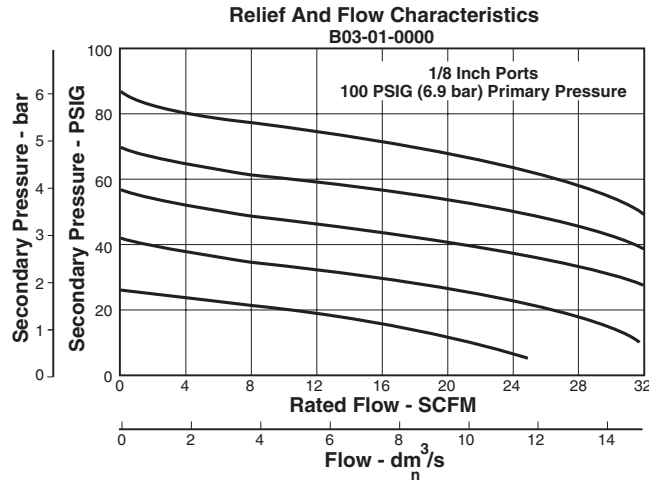
Options	
Blank	No Preset or Limiter Option
XXX	XXX PSIG (Example: 065 = 65 PSIG)

Note: Pressure Range 10 to 90 PSIG in 5 PSIG Increments

* Inlet pressure is 100 PSIG. For other pressures, consult factory.

† Must specify preset or limited pressure.

Technical Information



CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

B03 Filter / Regulator Kits & Accessories

Bowl Kits –

- Poly Bowl – Piston Drain PS408B
- Manual Drain PS404
- Metal Bowl – Piston Drain PS451B
- Manual Drain PS447B

Filter Element Kit – 5 Micron PS403

- Gauges – 30 PSIG (0 to 2,1 bar) P530156
- 60 PSIG (0 to 4,1 bar) P530154
- 160 PSIG (0 to 11,0 bar) P77413

Mounting Bracket Kit (Includes Panel Mount Nut) PS417B

- Panel Mount Nut – Plastic P78652
- Metal P01531

Poppet Valve Kit PS424B

- Service Kits – Non-Relieving PS422
- Relieving PS423

Springs – 1- 15 PSIG Range P01176

- 1- 30 PSIG Range P01175
- 1- 60 PSIG Range P01174
- 2- 125 PSIG Range P01173

Specifications

- Bowl Capacity 1 Ounce
- Gauge Ports (2) 1/8 Inch
- Port Threads 1/8, 1/4 Inch

Pressure & Temperature Ratings –

- Polycarbonate Bowl
0 to 150 PSIG (0 to 10,4 bar), 32°F to 125°F (0°C to 52°C)
- Metal Bowl
0 to 250 PSIG (0 to 17,3 bar), 32°F to 175°F (0°C to 80°C)

Secondary Pressure Ranges –

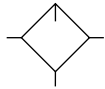
- Standard Pressure 2 to 125 PSIG (0 to 8,6 bar)
- Medium Pressure 1 to 60 PSIG (0 to 4,1 bar)
- Medium Pressure 1 to 30 PSIG (0 to 2,1 bar)
- Low Pressure 1 to 15 PSIG (0 to 1,0 bar)

Weight 4 lb. (.18 kg)

Materials of Construction

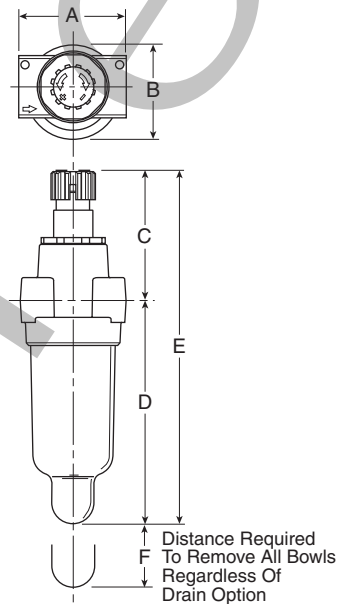
- Adjusting Nut Brass
- Adjusting Stem & Spring Steel
- Body Zinc
- Bonnet, Knob, Seat, Piston, Holder & Deflector Plastic
- Bowls – Transparent Polycarbonate
- Metal (Without Sight Gauge) Zinc
- Drains – Manual Drain –
Body & Stem Plastic
- Seals Nitrile
- Piston Drain –
Piston & Seals Nitrile
- Stem, Seat, Adaptor & Washers Aluminum
- Filter Elements – 5 Micron (Standard) Plastic
- Seals Nitrile

L03 EconOmist Lubricators – Miniature



Features

- Proportional oil delivery over a wide range of air flows.
- Precision needle valve assures repeatable oil delivery and provides simple adjustment of delivery rate.
- Ideal for low and high flow applications with changing air flow.
- Transparent sight dome for 360° visibility.
- High Flow: 1/8" – 20 SCFM[§]
 1/4" – 20 SCFM[§]



Model Type	Port Size	Polycarbonate Bowl	Metal Bowl
L03	1/8	L03-01-000	L03-01-M00
	1/4	L03-02-000	L03-02-M00
Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in position 6, 7, 8 of the model number. For additional information on accessories and repair kits, refer to the Table of Contents.			

L03 Lubricator Dimensions		
A	B	C
1.73 (44)	1.56 (40)	2.16 (55)
D	D†	E
3.64 (92)	3.78 (96)	5.80 (147)
E†	F	
5.94 (151)	1.60 (41)	

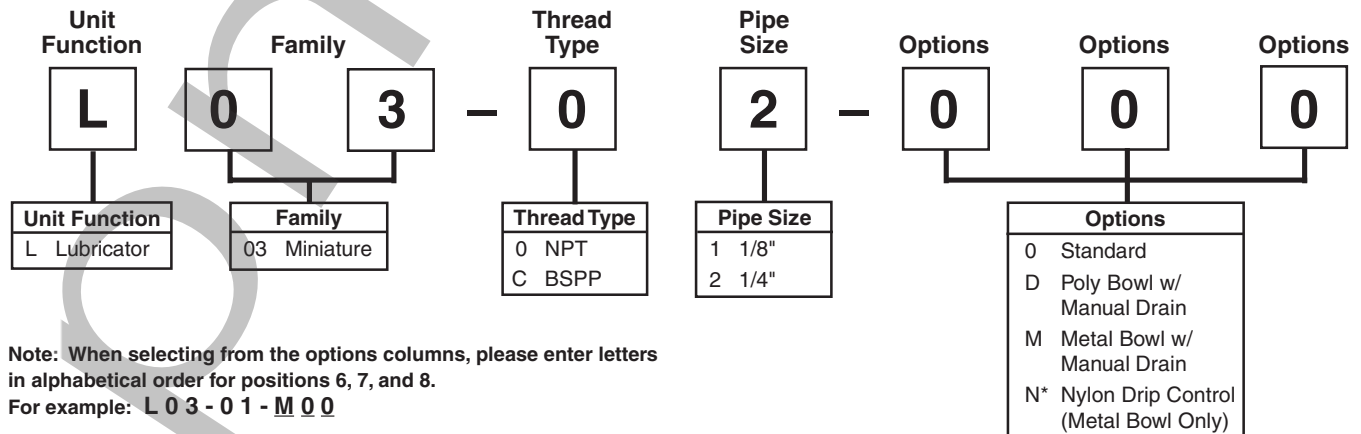
Standard part numbers shown, for other models refer to ordering information below.

‡ For polycarbonate bowl see Caution on Inside Front Cover.

§ SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.

Inches (mm)
 † With Twist Drain

Ordering Information

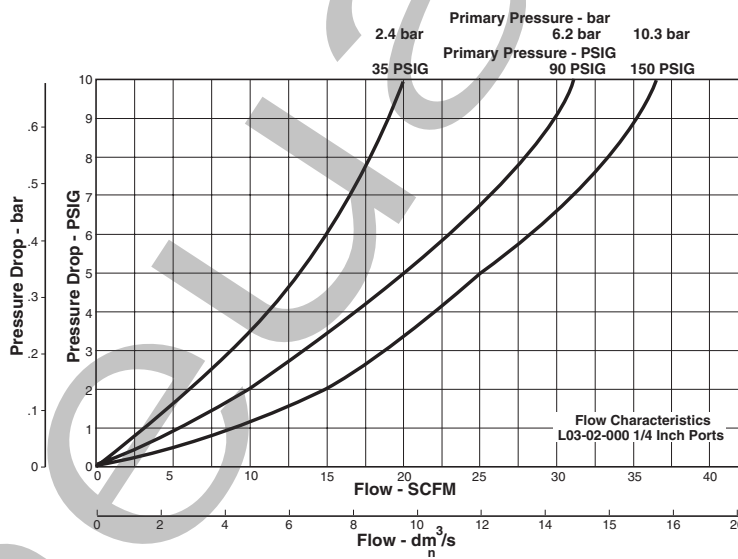
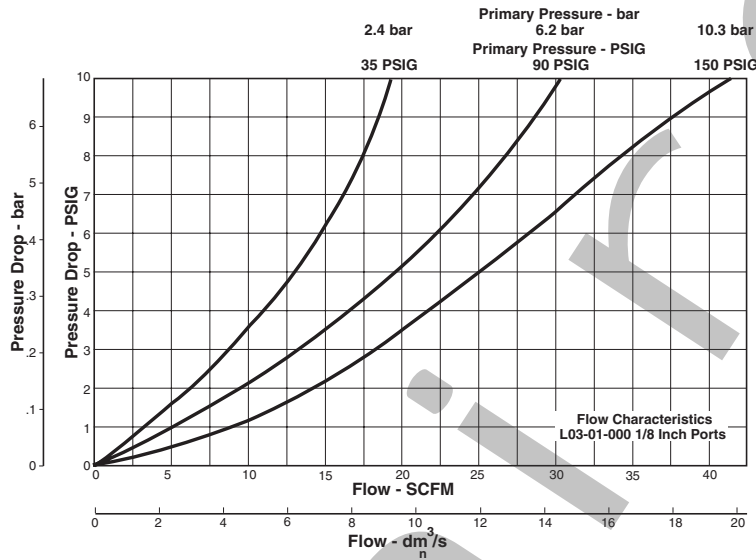


Note: When selecting from the options columns, please enter letters in alphabetical order for positions 6, 7, and 8.
 For example: L 0 3 - 0 1 - M 0 0

NOTE: 000 in position 6, 7, and 8 signifies standard product.
 (Poly Bowl, No Drain)

* Available only with Metal Bowl "M".

Technical Information



L03 EconOmist Lubricator Kits & Accessories

Bowl Kits –

- Poly Bowl – No Drain PS421
- Manual Drain PS420
- Metal Bowl – Manual Drain (No Sight Gauge) PS447B

Mounting Bracket Kit PS419

Specifications

- Bowl Capacity 1 Ounce
- Minimum Flow for Lubrication 0.7 SCFM at 100 PSIG
- Port Threads 1/8, 1/4 Inch
- Pressure & Temperature Ratings –
 - Polycarbonate Bowl – 0 to 150 PSIG (0 to 10.3 bar)
32°F to 125°F (0°C to 52°C)
 - Metal Bowl – 0 to 250 PSIG (0 to 17.2 bar)
32°F to 175°F (0°C to 80°C)

Suggested Lubricant

Petroleum based oil of 100 to 200 SUS viscosity at 100°F and an aniline point greater than 200°F (DO NOT USE OILS WITH ADDITIVES, COMPOUNDED OILS CONTAINING SOLVENTS, GRAPHITE, DETERGENTS, OR SYNTHETIC OILS.)

Weight4 lb. (.18 kg)

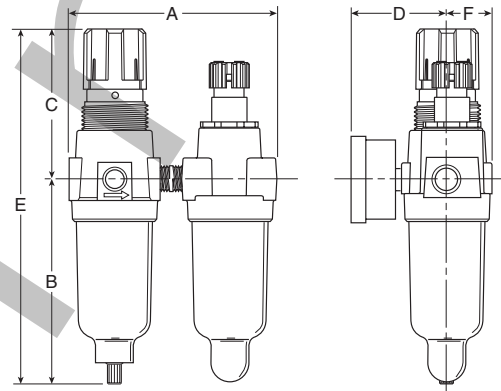
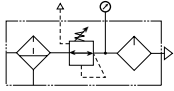
Materials of Construction

- Body Zinc
- Bowls – Transparent Polycarbonate
- Metal (Without Sight Gauge) Zinc
- Drains – Manual – Body & Nut Plastic
- Seals Nitrile
- Sight Dome Polycarbonate

Close Nippled Combinations – Miniature

- See individual component pages for details.

D03 Two-Unit Combo



Series	Port	Model Numbers
D03	1/8"	D03-01-0000
D03	1/4"	D03-02-0000

A	B	C	D	E	F
3.75	3.79	2.68	2.04	6.47	.79
(95)	(96)	(68)	(52)	(164)	(20)

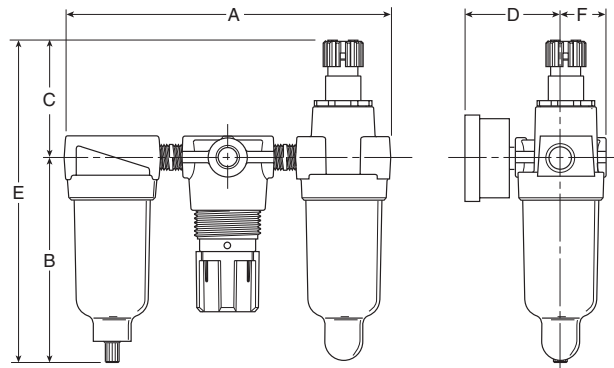
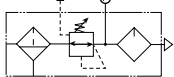
Inches (mm)

Note: All dimensions nominal.

For other models, refer to ordering information on next page.

- Regulator can be mounted with knob in up or down position. (Factory supplied in down position)

C03 Three-Unit Combo



Series	Port	Model Numbers
C03	1/8"	C03-01-0000
C03	1/4"	C03-02-0000

A	B	C	D	E	F
5.77	3.87	2.16	2.04	5.98	.78
(147)	(98)	(55)	(52)	(152)	(20)

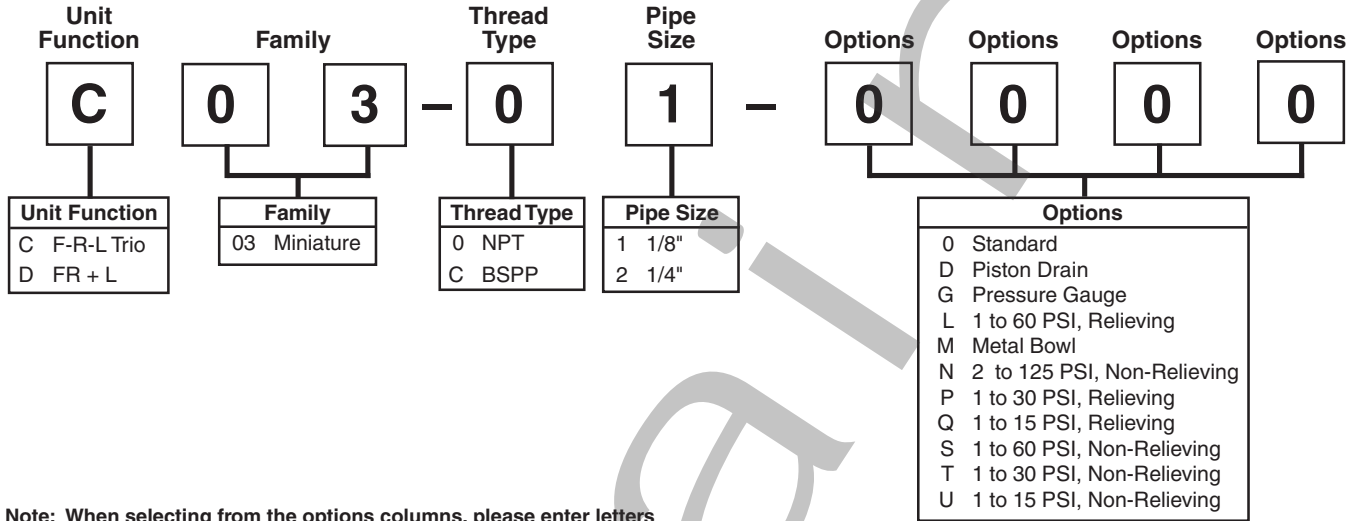
Inches (mm)

Note: All dimensions nominal.

For other models, refer to ordering information on next page.

Close Nippled Combinations – Miniature

Ordering Information



Note: When selecting from the options columns, please enter letters in alphabetical order for positions 6, 7, 8, and 9.
 For example: **M 0 3 - 0 1 - D M 0 0**

NOTE: 0000 in position 6, 7, 8 and 9 signifies standard product.
 (Poly Bowl, Manual Drain on Filter, no Drain on Lubricator, 2 to 125 PSIG, Relieving)

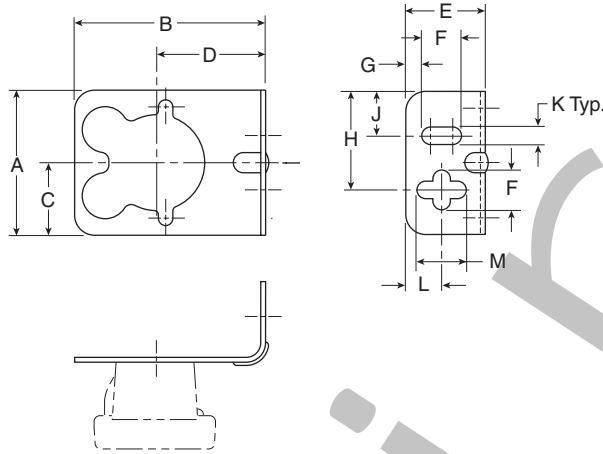
⚠ WARNING
Product rupture can cause serious injury. Do not connect regulator to bottled gas. Do not exceed maximum primary pressure rating.

CAUTION:

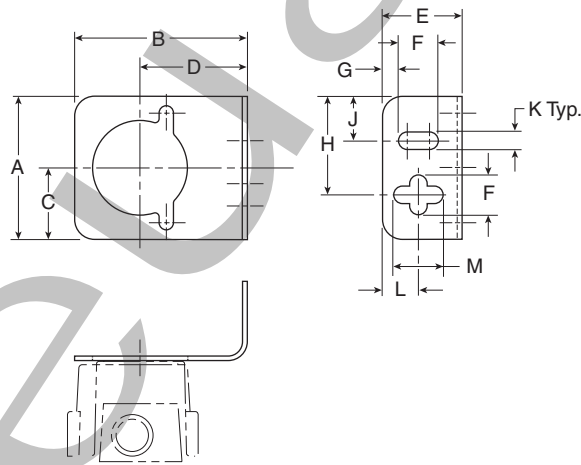
REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.
 For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Kits & Accessories (See individual component pages for other kits and accessories.)

Mounting Bracket Kit PS417B
 (Includes Panel Mount Nut)



PS417B
 (Includes Panel Mount Nut)



PS419

Dimensions

	A	B	C	D	E	F	G	H	J	K	L	M	Kit
inches	1.80	2.37	.90	1.35	1.00	.50	.20	1.24	.56	.22	.45	.62	PS417B (F03, M03, R03, B03)
mm	46	60	23	34	25	13	5	31	14	6	11	16	
inches	1.80	2.17	.90	1.35	1.00	.50	.20	1.24	.56	.22	.45	.62	PS419 (L03)
mm	46	55	23	34	25	13	5	31	14	6	11	16	