B38

Filter/Regulator Stainless Steel Model 1/4 or 1/2” PTF

- **Compact instrument units with high performance**
- **Stable regulation with temperature compensation**
- **Excellent flow and regulation characteristics**
- **Panel Mounting facility**
- **Designed for use in corrosive environments**
- **Metallic parts meet NACE Standard MR-01-75***
- **Applications include marine environments, oil and gas production, chemical and food processing, medical analysis**
- **Relieving or non relieving models. Relieving models allow reduction of outlet pressure even when the system is dead-ended**

* National Association of Corrosion Engineers (NACE) MR-01-75 defines requirements for sulphide stress cracking resistant materials used in well-head and other corrosive environments.

Ordering Information. Models listed are relieving type with manual drain, 5µm element, and PTF threads. A gauge is not included.

Port Size	Model Number	Outlet pressure range psig (bar)	Flow** scfm (dm³/s)	Weight kg (lbs)
1/4” PTF	B38-240-B1KA	4 to 100 (0.3 to 7)	15 (7)	3.11 (1.4)
1/2” PTF	B38-440-M1LA	4 to 125 (0.3 to 9)	106 (50)	4.75 (2.2)

** Typical flow with 175 psig (12 bar) inlet pressure, 115 psig (8 bar) set pressure and 15 psig (1 bar) droop from set.

Alternative Models

B 3 8 - ★ ★ ★ - ★ ★ ★ ★

Port Size	Substitute
1/4” PTF	2
1/2” PTF	4

Materials	Substitute
Stainless steel, nitrile elastomers	4
Stainless steel, Viton elastomers	5 †

Diaphragm	Substitute
Relieving	0
Non relieving	1
Relieving, bracket and nut	2
Non relieving, bracket and nut	3
Relieving with nut	4
Non relieving with nut	5
Relieving with handwheel and nut	6
Non relieving with handwheel and nut	7
Relieving with handwheel, bracket and nut	8
Non relieving with handwheel, bracket and nut	9

Threads	Substitute
PTF	A
ISO Rc taper	B
ISO G parallel	D
API.LP.INT	K

Outlet Pressure Adjustment Ranges*	Substitute
0.6 to 30 psig (0.04 to 2 bar)	C
1 to 60 psig (0.07 to 4 bar)	F
3.6 to 100 psig (0.25 to 7 bar)	K †
4 to 125 psig (0.3 to 9 bar)	L ††
7.2 to 150 psig (0.5 to 10 bar)	M †

Element	Substitute
5 µm	1
25 µm	2

Bowl/Drain	Substitute
Long bowl with automatic drain	A
Short bowl with manual drain	B
Long bowl with manual drain	M

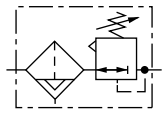
* Outlet pressure can be adjusted to pressures in excess of, and less than, those specified. Do not use these units to control pressures outside of the specified ranges.

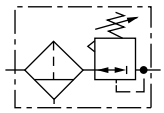
† 1/4” ported units only.

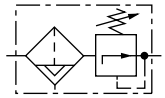
†† 1/2” ported units only.

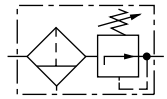
See Section ALE-24 for Accessories

ISO Symbols


Automatic Drain, Relieving


Manual Drain, Relieving


Automatic Drain, Non Relieving


Manual Drain, Non Relieving

Technical Data

Fluid: Compressed air
Maximum pressure
- Manual drain: 450 psig (31 bar)
- Automatic drain: 250 psig (17 bar)

Operating temperature: -40° to 175°F (-40° to 80°C) *
* Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C).
Particle removal: 5 µm or 25 µm filter element
Air quality: Within ISO 8573-1, Class 3 and Class 5 (particulates)
Typical flow with 175 psig (12 bar) inlet pressure, 115 psig (8 bar) set pressure and a droop of 15 psig (1.0 bar) from set
- 1/4": 15 scfm (7 dm^3/s)
- 1/2": 106 scfm (50 dm^3/s)

Automatic drain connection: Will fit 1/8-27 and 1/8-28 pipe thread
Automatic drain operating conditions (float operated)
- Bowl pressure required to close drain: Greater than 5 psig (0.3 bar)
- Bowl pressure required to open drain: Less than 3 psig (0.2 bar)
- Minimum air flow required to close drain 2 scfm (1 dm^3/s)

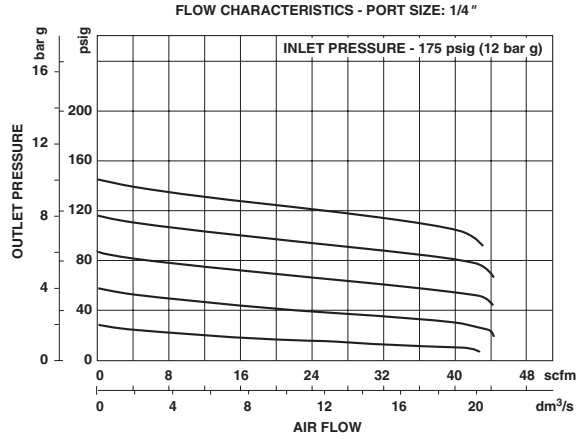
Nominal bowl size
- Short bowl with manual drain: 25 ml (1 fluid ounce)
- Long bowl with manual drain: 3 fluid ounce (90 ml)
- Long bowl with automatic drain: 1 fluid ounce (25 ml)

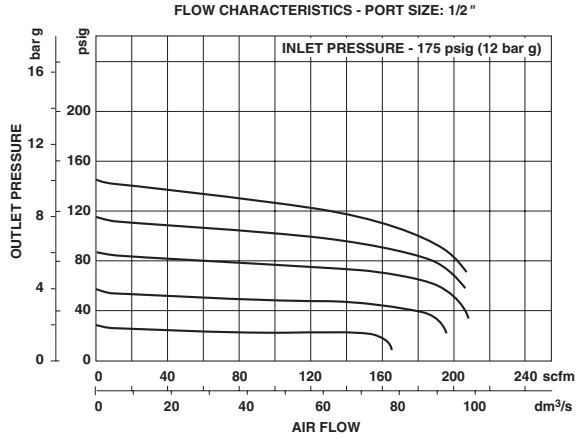
Gauge ports:
- 1/4" PTF

Relief port:
- 1/8" PTF

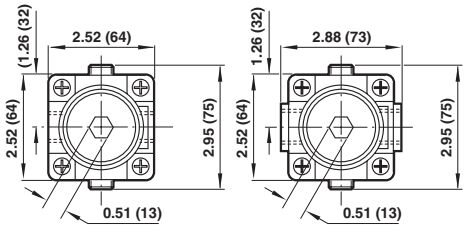
Materials (standard option)
- Body: Stainless steel
- Bonnet: Stainless steel
- Bowl: Stainless steel
- Adjusting screw: Stainless steel
- Elements
  - 5 µm & 25 µm: High density polyethylene
  - 1/4" only 5 µm: Ceramic pyrolith
- Elastomeric materials: Synthetic rubber

Typical Performance Characteristics

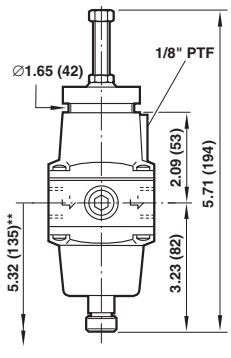




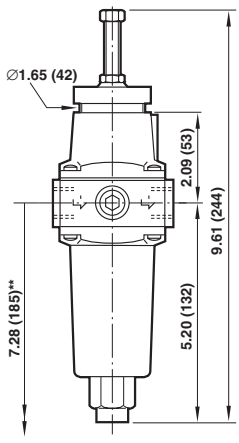
All Dimensions in Inches (mm)



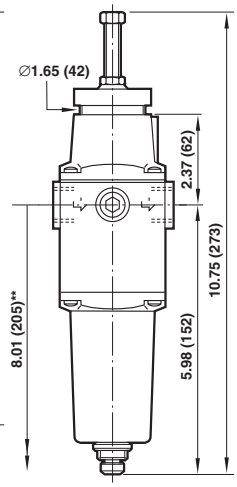
Panel mounting hole diameter: 1.65" (42 mm)
Maximum panel thickness: 0.24" (6 mm)



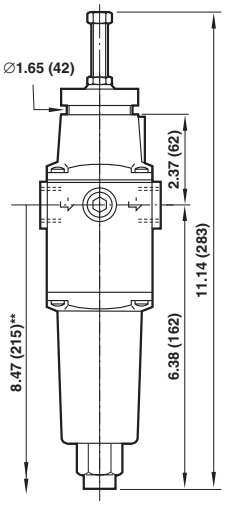
1/4" Port Size
Manual Drain, Short Bowl



1/4" Port Size
Automatic Drain, Long Bowl



1/2" Port Size
Manual Drain, Long Bowl



1/2" Port Size
Automatic Drain, Long Bowl

** Minimum clearance required to remove bowl.

Service Kits (standard option)

1/4" Filter

Item	Part number
5 µm	B38-100A (5)
25 µm	B38-100S (25)

1/2" Filter

Item	Part number
5 µm	2787-43
25 µm	2787-44

Filter service kits include element, seals and screws.

Automatic Drain Assembly

Item	Part number
Automatic Drain Assembly	3000-90

1/4" Regulator

Item	Type	Part number
30 psig spring	Relieving	R38-100R
	Non relieving	R38-100NR
60 & 100 psig spring	Relieving	R38-101R
	Non relieving	R38-101NR
150 psig spring	Relieving	R38-102R
	Non relieving	R38-102NR

1/2" Regulator

Item	Type	Part number
All available spring ranges	Relieving	2787-41
	Non relieving	2787-42

Regulator service kits include diaphragm assembly, o-ring,valve, valve spring and 8 pan head screws.