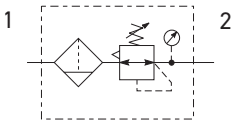
P31 Filter / Regulators – Mini

- Integral 1/4" ports (NPT & BSPP)
- High efficiency 5 micron element as standard
- Excellent water removal efficiency
- Robust but lightweight aluminum construction
- Positive bayonet latch to ensure correct & safe fitting
- Secondary pressure ranges
- Secondary aspiration plus balanced poppet provides quick response and accurate pressure regulation



Port Size	Description (relieving)	Bowl / Drain Type ‡	Part Number
1/4"	125 psig (8 bar)	Poly / Manual	**P31EB12EGMBNTP**
1/4"	125 psig (8 bar)	Poly / Pulse	**P31EB12EGBBNTP**
1/4"	125 psig (8 bar)	Metal / Manual	**P31EB12EMMBNTP**
1/4"	125 psig (8 bar)	Metal / Pulse	**P31EB12EMBBNTP**

‡ For polycarbonate bowl, see caution in Engineering Section A.

Operating Information

Flow capacity*:	1/4	73 scfm (35 dm³/s, ANR)
Operating temperature‡:		
Plastic bowl		14°F to 125°F (-10°C to 52°C)
Metal bowl		14°F to 150°F (-10°C to 65.5°C)
Supply pressure (max):		
Plastic bowl		150 psig (10 bar)
Metal bowl		250 psig (17 bar)
Standard filtration		5 micron
Useful retention†:		0.4 US oz. (12 cm³)
Adjusting range pressure:		0 to 30 psig (0 to 2 bar) 0 to 60 psig (0 to 4 bar) 0 to 125 psig (0 to 8 bar) 0 to 250 psig (0 to 17 bar)
Weight:		0.42 lb (0.19 kg)

* Inlet pressure 145 psig (10 bar). Secondary pressure 91.3 psig (6.3 bar) and 14.5 psig (1 bar) pressure drop.
**Non-gauge option only.
‡ Units with square gauges: 5°F to 150°F (-15°C to 65.5°C)
† Useful retention refers to volume below the quiet zone baffle.

Gauge supplied with every part. Gauge can be installed on the front or back of the regulator. If no gauge is installed, both seal screws must be installed.

Ordering Information:

P31EB | 1 | 2 | E | G | M | B | N | T | P

Basic Series
Global Modular Mini Filter / Regulator — P31EB

Thread Type
BSPP — 1
NPT — 9

Port Size
1/4 — 2

Element
5µ Element — E

Bowl Type
Poly Bowl with Bowl Guard — G
Metal Bowl without Sight Gauge — M

Drain Type
Pulse Drain — B
Manual Drain — M

Relief
B — Relieving
N — Non-Relieving

Adjustment
N — Non-Rising Knob

Mounting
P — Plastic Panel Mount Nut

Adjustment Range With Square Gauge

psig (NPT Ports)	Bar (BSPP Ports)
1 = 30*	V = 2*
3 = 60	S = 4
5 = 125	T = 8
7 = 232	W = 16

* Regulator comes with gauge respective to the adjustment range selected.

Most Popular

Material Specifications

Body	Aluminum
Adjustment knob	Acetal
Body cap	ABS
Bonnet	Glass-filled nylon
Plastic bowl	Polycarbonate
Metal bowl	Aluminum
Bowl guard	Nylon
Filter element	Polyethylene
Seals	Nitrile
Springs	Steel
Valve assembly	Acetal/ Nitrile
Diaphragm assembly	Stainless Steel / Nitrile
Panel nut	Acetal

⚠ WARNING

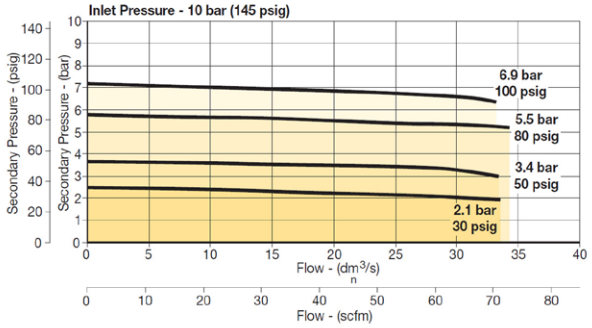
Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed Maximum primary pressure rating.

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.

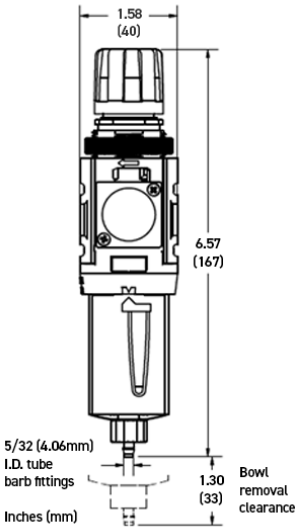
Flow Charts

P31EB 1/4" Filter / Regulator

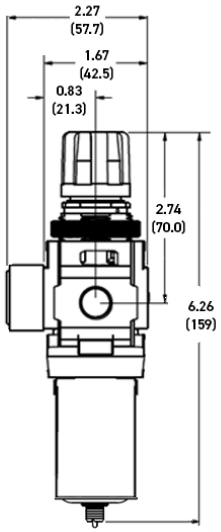


Repair and Service Kits

Plastic bowl / bowl guard manual drain	**P31KB00BGM**
Plastic bowl / bowl guard pulse drain	**P31KB00BGB**
Metal bowl / w/o sight gauge pulse drain	**P31KB00BMB**
5µ particle filter element	**P31KA00ESE**
Panel mount nut - aluminum	**P31KA00MM**
Panel mount nut - plastic	**P31KA00MP**
Angle bracket (attaches via panel nut)	**P31KB00MR**
C-bracket (fits to body)	**P31KA00MW**
T-bracket with body connector	**P31KA00MT**
Body connector	**P31KA00CB**



Manual Drain



Pulse Drain

Square gauge supplied with every part. Gauge can be installed on the front or back of the regulator. If no gauge is installed, both seal screws must be installed.

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