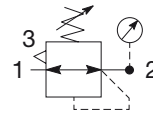


Global Air Preparation System

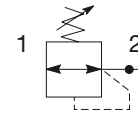
Mini Regulator - P31



Symbols



Self relieving regulator with gauge



Non relieving regulator

- Integral 1/4" ports (NPT, BSPP & BSPT)
- Robust but lightweight aluminum construction
- Secondary pressure ranges 0-2 bar (0-30 psig), 0-4 bar (0-60 psig), 0-8 bar (0-125 psig), 0-16 bar (0-232 psig)
- Secondary aspiration plus balanced poppet provides quick response and accurate pressure regulation.
- Relieving & Non-relieving types
- Non-rising knob

Options:

P31RB 9 2 B N N P

Basic series	Thread type	Mounting
Global modular mini regulator P31RB	BSPP 1 BSPT 2 NPT 9	P Plastic panel mount nut
	Port size	
	1/4 2	
	Relief	
	Relieving B Non-relieving N	
	Note: Regulators will reverse flow as standard.	
		Adjustment range
	With square gauge	With round gauge
	psig bar	Z 2 bar; 30 psig; 0.2 MPa
	1 = 30* V = 2*	M 4 bar; 60 psig; 0.4 MPa
	3 = 60 S = 4	G 8 bar; 125 psig; 0.8 MPa
	5 = 125 T = 8	J 16 bar; 232 psig; 1.6 MPa
		Without gauge
		Y 2 bar; 30 psig; 0.2 MPa
		L 4 bar; 60 psig; 0.4 MPa
		N 8 bar; 125 psig; 0.8 MPa
		H 16 bar; 232 psig; 1.6 MPa

* Unit comes with 0-4 bar or 0-60 psig gauge respectively.

Bold items are most common.

Port size	Description	Flow† dm ³ /s (scfm)	Max. bar (psig)	Height mm (inches)	Width mm (inches)	Depth mm (inches)	Part number†
1/4"	8 bar (125 psig) relieving	32 (68)	20 (300)	104.1 (4.1)	40 (1.58)	40 (1.58)	P31RB92BNNP
1/4"	8 bar (125 psig) + gauge	32 (68)	20 (300)	104.1 (4.1)	40 (1.58)	61.3 (2.41)	P31RB92BN5P

† Standard part numbers shown in bold. For other models refer to Options chart above.

‡ Flow with 10 bar (145 psig) inlet pressure, 6.3 bar (91.3 psig) set pressure and 1 bar (14.5 psig) pressure drop.



Global Air Preparation System

Specifications

Flow capacity*	1/4	32 dm ³ /s (68 scfm)
Operating temperature†	-20°C to 65.5°C (-4°F to 150°F)	
Max. supply pressure	20 bar (300 psig)	
Adjusting range pressure	0-2 bar (30 psig)	
	0-4 bar (60 psig)	
	0-8 bar (125 psig)	
	0-16 bar (232 psig)	
Port size	BSPP / BSPT / NPT	1/4
Gauge port (2 ea.)**	BSPP / BSPT / NPT	1/8
Weight	0.17 kg (0.37 lbs)	

* Inlet pressure 10 bar (145 psig). Secondary pressure 6.3 bar (91.3 psig).

** Non-gauge option only.

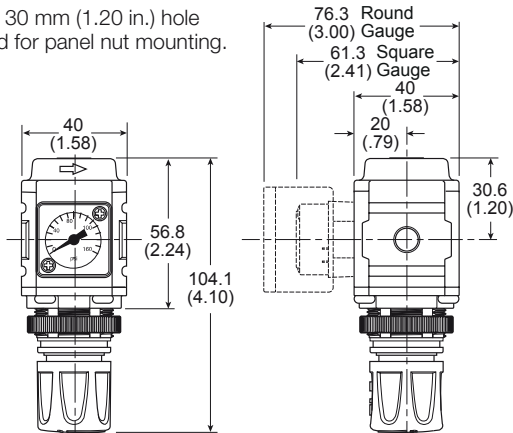
† Units with square gauges: -15°C to 65.5°C (5°F to 150°F)

Material Specifications

Body	Aluminum
Adjustment knob	Acetal
Bonnet	PBT
Diaphragm assembly	Brass / Nitrile
Valve assembly	Brass / Nitrile
Springs	Steel
Seals	Nitrile
Panel nut	Acetal

Dimensions mm (inches)

NOTE: 30 mm (1.20 in.) hole required for panel nut mounting.



WARNING

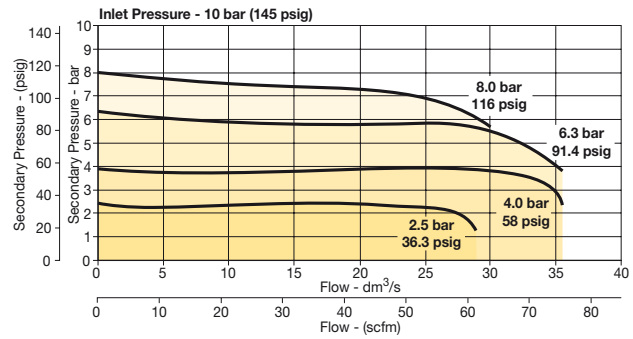
Product rupture can cause serious injury. Do not connect regulator to bottled gas. Do not exceed Maximum primary pressure rating.

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

1/4 Regulator



Repair and Service Kits

Regulator repair kit - relieving	P31KB00RB
Regulator repair kit - non-relieving	P31KB00RC
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

Gauges

Square flush mount gauge

0-4 bar	K4511SCR04B
0-11 bar	K4511SCR11B
0-60 psig	K4511SCR060
0-160 psig	K4511SCR160

Square with adapter kit

0-4 bar	P6G-PR10040
0-11 bar	P6G-PR10110
0-60 psig	P6G-PR90060
0-160 psig	P6G-PR90160

1.00" Round 1/8" center back mount

0-60 psig / 0-4 bar	K4510N18060
0-160 psig / 0-11 bar	K4510N18160

40mm Round 1/8" center back mount

(Not for use with Common Port Regulators)

0-30 psig / 0-2 bar	K4515N18030
0-60 psig / 0-4 bar	K4515N18060
0-160 psig / 0-11 bar	K4515N18160

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

