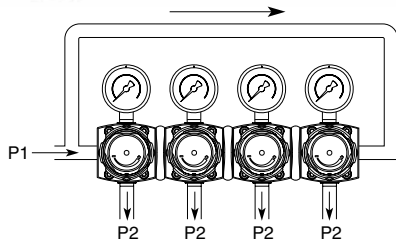
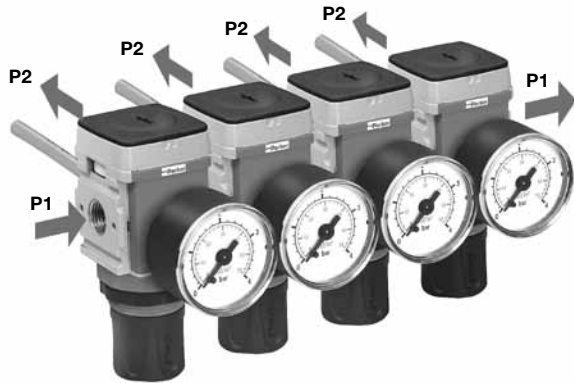
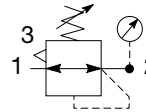


**Global Air Preparation System**

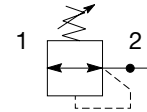
**Mini Common - P1 Regulator - P31**



**Symbols**



Self relieving regulator with gauge



Non relieving regulator

- Manifold style regulator with line pressure on both sides.
- Pressure output is at front or rear.
- Integral 1/4" ports (NPT, BSPP & BSPT)
- Robust construction
- Secondary pressure ranges 0-2 bar (0-30 psig), 0-4 bar, (0-60 psig), 0-8 bar (0-125 psig), 0-17 bar (0-250 psig)
- Secondary aspiration plus balanced poppet provides quick response and accurate pressure regulation
- Relieving & Non-relieving types
- Non-rising knob

**Options:**

<b>P31H</b>	<b>A</b>	<b>9</b>	<b>2</b>	<b>B</b>	<b>N</b>	<b>N</b>	<b>P</b>																																								
<b>Basic series</b> Global modular mini common regulator <b>P31H</b>	<b>Engr level</b> Current <b>A</b>	<b>Thread type</b> BSPP 1 BSPT 2 NPT 9	<b>Port size</b> 1/4 2	<b>Relief</b> Relieving <b>B</b> Non-relieving <b>N</b>	<b>Mounting</b> P Plastic panel mount nut			<b>Adjustment range</b>																																							
						<table border="1"> <thead> <tr> <th colspan="2">With square gauge</th> <th colspan="2">With round gauge</th> </tr> <tr> <th>psig</th> <th>bar</th> <th>Z</th> <th>M</th> </tr> </thead> <tbody> <tr> <td>1 = 30*</td> <td>V = 2*</td> <td>2 bar; 30 psig; 0.2 MPa</td> <td>4 bar; 60 psig; 0.4 MPa</td> </tr> <tr> <td>3 = 60</td> <td>S = 4</td> <td>8 bar; 125 psig; 0.8 MPa</td> <td>8 bar; 125 psig; 0.8 MPa</td> </tr> <tr> <td>5 = 125</td> <td>T = 8</td> <td>J<sup>§</sup> 17 bar; 250 psig; 1.7 MPa</td> <td></td> </tr> <tr> <td colspan="2"></td> <th colspan="2">Without gauge</th> </tr> <tr> <td colspan="2"></td> <td>Y</td> <td>2 bar; 30 psig; 0.2 MPa</td> </tr> <tr> <td colspan="2"></td> <td>L</td> <td>4 bar; 60 psig; 0.4 MPa</td> </tr> <tr> <td colspan="2"></td> <td>N</td> <td>8 bar; 125 psig; 0.8 MPa</td> </tr> <tr> <td colspan="2"></td> <td>H<sup>§</sup></td> <td>17 bar; 250 psig; 1.7 MPa</td> </tr> </tbody> </table>		With square gauge		With round gauge		psig	bar	Z	M	1 = 30*	V = 2*	2 bar; 30 psig; 0.2 MPa	4 bar; 60 psig; 0.4 MPa	3 = 60	S = 4	8 bar; 125 psig; 0.8 MPa	8 bar; 125 psig; 0.8 MPa	5 = 125	T = 8	J <sup>§</sup> 17 bar; 250 psig; 1.7 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 <sup>§</sup>	17 bar; 250 psig; 1.7 MPa
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**Bold items are most common.**

\* Unit comes with 0-4 bar or 0-60 psig gauge respectively.  
 § Not available with poly bowl with bowl guard.

Port size	Description	Order code <sup>†</sup>	Flow <sup>‡</sup> dm <sup>3</sup> /s (scfm)	Max. bar (psig)	Height mm (inches)	Width mm (inches)	Depth mm (inches)
1/4"	8 bar (125 psig) relieving	<b>P31HA92BNNP</b>	18 (38)	20 (300)	100.1 (3.94)	40 (1.58)	40 (1.58)

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

<sup>‡</sup> 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	18 dm <sup>3</sup> /s (38 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) 0-17 bar (250 psig)	
P1 Port size (Inlet / Outlet)	BSPP / BSPT / NPT	1/4
P2 Regulated ports (2 ea.)	BSPP / BSPT / NPT	1/8
Weight	0.30 kg (0.66 lbs)	

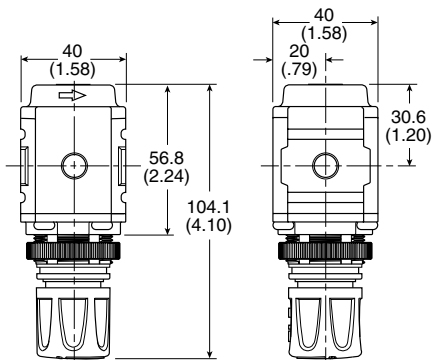
\* Inlet pressure 10 bar (145 psig). Secondary pressure 6.3 bar (91.3 psig).

### Materials of Construction

Body	Zinc
Adjustment knob	Acetal
Body cap	ABS
Bonnet	33% Glass-filled PBT
Diaphragm assembly	Brass / Nitrile
Bottom plug	33% Glass-filled nylon
Valve assembly	Brass / Nitrile

### Dimensions mm (inches)

**NOTE:** 31.7 mm (1.25 in.) hole required for panel nut mounting.



#### WARNING

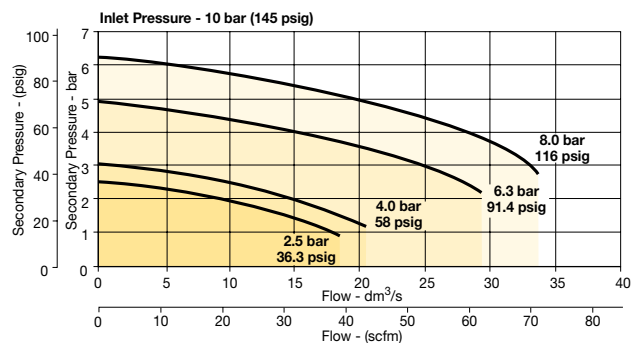
**Product rupture can cause serious injury.  
Do not connect regulator to bottled gas.  
Do not exceed Maximum primary pressure rating.**

#### 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 Common Regulator



### Repair and Service Kits

Regulator repair kit - relieving	<b>P31KA00RB</b>
Regulator repair kit - non-relieving	<b>P31KA00RC</b>
Panel mount nut - aluminum	<b>P31KA00MM</b>
Panel mount nut - plastic	<b>P31KA00MP</b>
Angle bracket (uses panel mount threads)	<b>P31KB00MR</b>
T-bracket with body connector	<b>P31KA00MT</b>
Body connector	<b>P31KA00CB</b>

### Gauges

#### 1.00" Round 1/8" center back mount

0-60 psig / 0-4 bar	<b>K4510N18060</b>
0-160 psig / 0-11 bar	<b>K4510N18160</b>

#### Square with adapter kit

0-4 bar	<b>P6G-PR11040</b>
0-10 bar	<b>P6G-PR11100</b>
0-60 psig	<b>P6G-PR11P06</b>
0-150 psig	<b>P6G-PR11P15</b>

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

