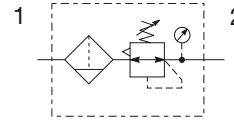


**Global Air Preparation System**

**Mini Filter / Regulator - P31**



**Symbols**



- Integral 1/4" ports (NPT, BSPP & BSPT)
- 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 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

**Options:**

<b>P31EB</b>	<b>9</b>	<b>2</b>	<b>E</b>	<b>G</b>	<b>M</b>	<b>B</b>	<b>N</b>	<b>5</b>	<b>P</b>																																								
<b>Basic series</b> Global modular mini filter / regulator <b>P31EB</b>	<b>Thread type</b> BSPP 1 BSPT 2 NPT 9	<b>Element</b> 5µ Element E	<b>Port size</b> 1/4 2	<b>Bowl type</b> Poly bowl with bowl guard G Metal bowl without sight gauge M	<b>Relief</b> B Relieving N Non-relieving	<b>Drain type</b> B Pulse drain M Manual drain	<b>Mounting</b> p Plastic panel mount nut	<b>Adjustment range</b>																																									
						<table border="1"> <tr> <th colspan="2">With square gauge</th> <th colspan="2">With round gauge</th> </tr> <tr> <td>psig</td> <td>bar</td> <td>Z</td> <td>2 bar; 30 psig; 0.2 MPa</td> </tr> <tr> <td>1 = 30*</td> <td>V = 2*</td> <td>M</td> <td>4 bar; 60 psig; 0.4 MPa</td> </tr> <tr> <td>3 = 60</td> <td>S = 4</td> <td>G</td> <td>8 bar; 125 psig; 0.8 MPa</td> </tr> <tr> <td>5 = 125</td> <td>T = 8</td> <td>J<sup>§</sup></td> <td>16 bar; 232 psig; 1.6 MPa</td> </tr> <tr> <td colspan="2"></td> <th colspan="2">Without gauge</th> </tr> <tr> <td></td> <td></td> <td>Y</td> <td>2 bar; 30 psig; 0.2 MPa</td> </tr> <tr> <td></td> <td></td> <td>L</td> <td>4 bar; 60 psig; 0.4 MPa</td> </tr> <tr> <td></td> <td></td> <td>N</td> <td>8 bar; 125 psig; 0.8 MPa</td> </tr> <tr> <td></td> <td></td> <td>H<sup>§</sup></td> <td>16 bar; 232 psig; 1.6 MPa</td> </tr> </table>		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 <sup>§</sup>	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 <sup>§</sup>	16 bar; 232 psig; 1.6 MPa		
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<p>* Unit comes with 0-4 bar or 0-60 psig gauge respectively.                  § Not available with poly bowl with bowl guard.</p>																																																	
<b>Bold items are most common.</b>																																																	

Port size	Description	Flow <sup>†</sup> dm <sup>3</sup> /s (scfm)	Max. bar (psig)	Height mm (inches)	Width mm (inches)	Depth mm (inches)	Part number <sup>†</sup>
1/4"	8 bar (125 psig) relieving - poly bowl - manual drain	10 (22)	10 (150)	176.9 (6.96)	40 (1.58)	61.3 (2.41)	<b>P31EB92EGMBN5P</b>
1/4"	8 bar (125 psig) relieving - poly bowl - pulse drain	10 (22)	10 (150)	172.0 (6.77)	40 (1.58)	61.3 (2.41)	<b>P31EB92EGBBN5P</b>
1/4"	8 bar (125 psig) relieving - metal bowl - manual drain	10 (22)	17 (250)	176.9 (6.96)	40 (1.58)	61.3 (2.41)	<b>P31EB92EMMBN5P</b>
1/4"	8 bar (125 psig) relieving - metal bowl - pulse drain	10 (22)	17 (250)	172.0 (6.77)	40 (1.58)	61.3 (2.41)	<b>P31EB92EMBBN5P</b>

† 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	10 dm <sup>3</sup> /s (22 scfm)
Operating temperature†	Plastic bowl Metal bowl	-10°C to 52°C (14°F to 125°F) -10°C to 65.5°C (14°F to 150°F)
Max. supply pressure	Plastic bowl Metal bowl	10 bar (150 psig) 17 bar (250 psig)
Standard filtration		5 micron
Useful retention		12 cm <sup>3</sup> (0.4 US oz.)
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		0.19 kg (0.42 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)

**Air quality:**

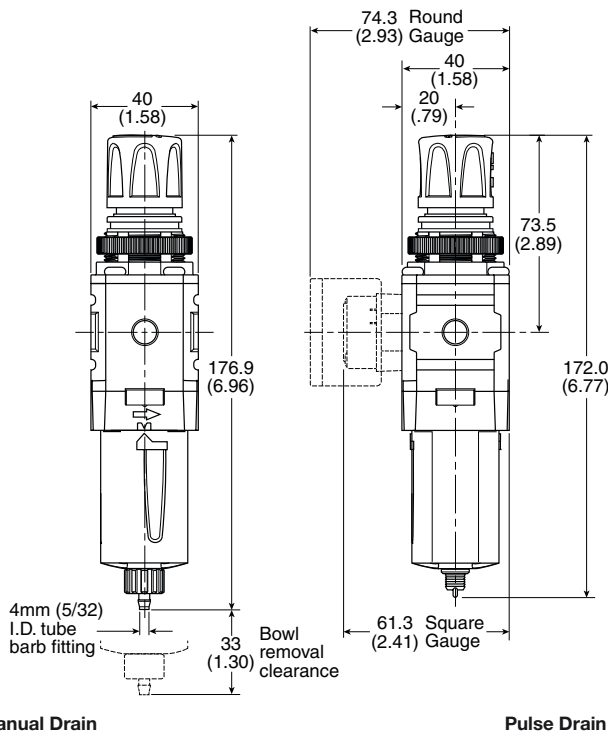
Within ISO 8573-1: 1991 Class 3 (Particulates)  
 Within ISO 8573-1: 2001 Class 6 (Particulates)



**WARNING**

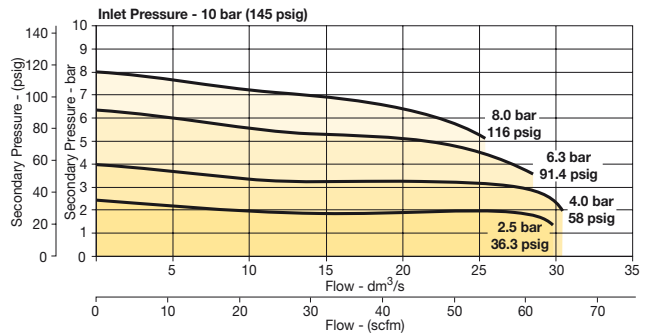
**Product rupture can cause serious injury.  
 Do not connect regulator to bottled gas.  
 Do not exceed Maximum primary pressure rating.**

**Dimensions mm (inches)**



**Flow Charts**

**1/4 Filter / Regulator**



**Material Specifications**

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

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

**Repair and Service Kits**

Plastic bowl / Bowl guard manual drain	<b>P31KB00BGM</b>
Plastic bowl / Bowl guard pulse drain	<b>P31KB00BGB</b>
Metal bowl / w/o sight gauge pulse drain	<b>P31KB00BMB</b>
5µ particle filter element	<b>P31KA00ESE</b>
Regulator repair kit - relieving	<b>P31KB00RB</b>
Regulator repair kit - non-relieving	<b>P31KB00RC</b>
Panel mount nut - aluminum	<b>P31KA00MM</b>
Panel mount nut - plastic	<b>P31KA00MP</b>
Angle bracket (attaches via panel nut)	<b>P31KB00MR</b>
C-bracket (fits to body)	<b>P31KA00MW</b>
T-bracket with body connector	<b>P31KA00MT</b>
Body connector	<b>P31KA00CB</b>

**Gauges**

**Square flush mount gauge**

0-4 bar	<b>K4511SCR04B</b>
0-11 bar	<b>K4511SCR11B</b>
0-60 psig	<b>K4511SCR060</b>
0-160 psig	<b>K4511SCR160</b>

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

