

### P31P & P32P Proportional Regulators

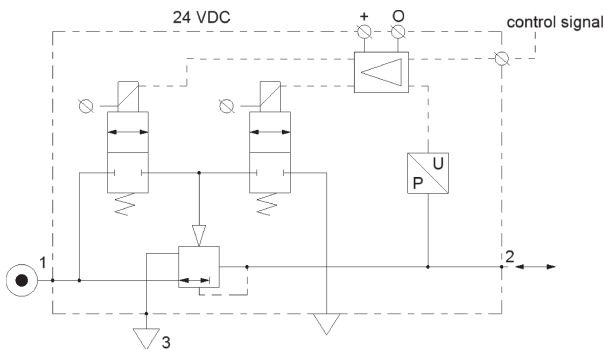
- Very fast response times
- Accurate output pressure
- Parameter settings
- Selectable I/O parameters
- Quick, full flow exhaust
- LED display indicates output pressure
- No air consumption in steady state
- Multiple mounting options
- Protection to IP65



P31P Series  
Bottom exhaust



P32P Series  
Bottom exhaust



Port Size	Description	Part Number
1/4"	145 psig (0-10 bar), NC 0-10V	<b>P31PA12AD2VD1A</b>
1/2"	145 psig (0-10 bar), NC 0-10V	<b>P32PA14AD2VD1A</b>

#### Operating Information

Flow capacity*:	P31P	40 scfm (19 dm <sup>3</sup> /s, ANR)
	P32P	120 scfm (57 dm <sup>3</sup> /s, ANR)
Temperature range:	32°F to 122°F (0°C to 50°C)	
Supply pressure (max):	2 bar unit	36.3 psig (2.5 bar)
	10 bar unit	152 psig (10.5 bar)
Operating pressure (min):	P2 pressure + 7.3 psig (0.5 bar)	
Working medium:	Compressed air or inert gasses, filtered to 40µ	
Pressure range:	0 to 30 psig (0 to 2 bar)	
	0 to 145 psig (0 to 10 bar)	
Weight:	P31P	0.64 lb (0.291 kg)
	P32P	1.42 lb (0.645 kg)

\* Inlet pressure 91.3 psig (6.3 bar), inlet pressure and 4.9 psig (0.34 bar) pressure drop.

#### Ordering Information:

<b>P31PA</b>		<b>1</b>	<b>2</b>	<b>A</b>	<b>S</b>	<b>2</b>	<b>V</b>	<b>D</b>	<b>1</b>	<b>A</b>
<b>Body Size</b>		<b>Thread Type</b>		<b>Power Supply</b>		<b>Control Signal</b>		<b>Input Connector</b>		
Global Modular Mini (1/4")	P31PA	BSPP	1	2	24 volts	V	0-10V <sup>‡</sup>	1	M12 (4-pin)	
Global Modular Compact (1/2")	P32PA	NPT	9			A	4-20mA			
<b>Port Size</b>		<b>Pressure Range</b>		<b>Output Signal</b>						
Global Modular Mini (1/4")	2	Z	0 - 2 bar (0-29 PSIG)	D	Digital, PNP					
Global Modular Compact (1/2")	4	S	0 - 7 Bar (0-101 PSIG)	P	PNP or 0-10V					
		D	0 - 10 bar (0-145 PSIG)	N	NPN or 0-10V					
				M	4-20mA Fixed					
<b>Version</b>		<b>Version</b>								
Bottom Ported Exhaust (NC)		A								
Bottom Ported Forced Exhaust (NO) <sup>†</sup>		E								
Side Ported Exhaust (NC)		B								
Side Ported Forced Exhaust (NO) <sup>†</sup>		C								

<sup>‡</sup> Factory setting is 0-10 V control signal. 4-20 mA control signal available via parameter 4 on keypad.

<sup>†</sup> When the supply voltage is lost the unit will automatically exhaust the regulated pressure to 0 bar (atmospheric pressure).

D) Digital PNP output only, no analog output selectable  
 P) Digital PNP and analogue 0-10V outputs selectable, by means of parameter 6. (Factory default 0-10V)  
 N) Digital NPN and analog 0-10 V outputs selectable by means of parameter 6. Factory default 0-10V)  
 M) Analog 4-20mA output only.  
 Note: On all analog outputs the F.S. value can be adjusted by means of parameter 8.

#### Most Popular



**Technical Information**

**Accuracy**

+/- 1.0% of F.S.\*

\* Full scale (F.S.) - For 2 bar (29 psig) versions this will be 2 bar (29 psig), for the 10 bar (145 psig) version full scale will be 10 bar (145 psig).

**Air consumption**

No consumption in stable regulated situation.

**Display**

The regulator is provided with a digital display, indicating the output pressure, either in bar or psig. The factory setting is as indicated on the label, can be changed through to software at all times (parameter 14)

**Supply voltage**

24 VDC +/- 10%

**Power consumption**

Max. 1.1W with unloaded signal outputs

**Control signals**

The electronic pressure regulator can be externally controlled through an analogue control signal of either 0-10V or 4-20mA. (parameter 4).

**Output signals**

As soon as the output pressure is within the signal band a signal is given of 24VDC, PNP Ri = 1 kOhm Outside the signal band this connection is 0V.

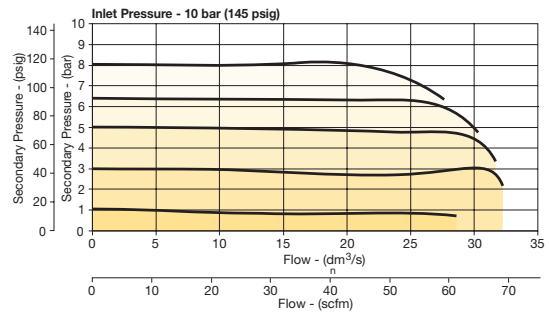
**Connections**

(In case of output signal (Option D)  
Central M12 connector 4-pole  
The electrical connections are as follows:

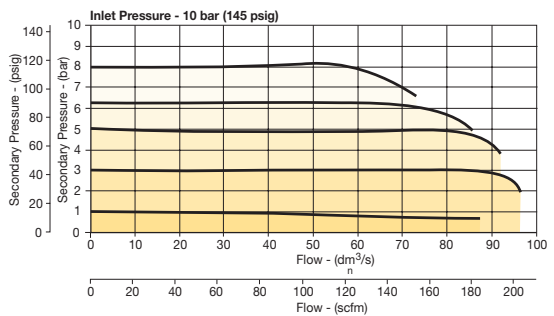
Pin No.	Function	Color	
1	24 V	Supply	Brown
2	0 to 10 V	Control Signal Ri = 100k Ω	White
	4 to 20mA	Control Signal Ri = 500 Ω	
3	0 V (GND)	Supply & Set Point Ground	Blue
4	24 V	Alarm Output Signal	Black

**Flow Charts**

**P31P Regulator 1/4" Ports**



**P32P Regulator 1/2" Ports**



**Degree of protection:** IP65

**EU conformity**

CE: standard  
EMC: according to directive 89/336/EEC  
This pressure regulator is in accordance with:

- EN 61000-6-1:2001
- EN 61000-6-2:2001
- EN 61000-6-3:2001
- EN 61000-6-4:2001

**Mounting position**

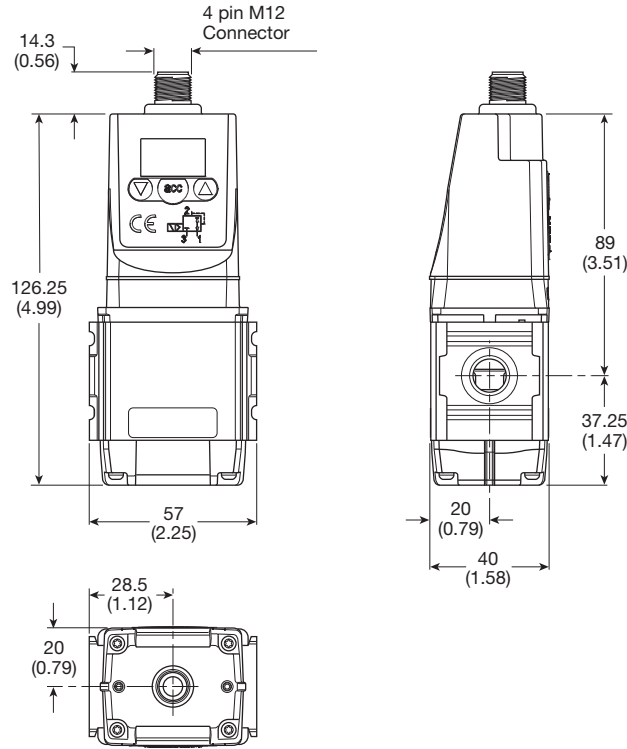
Preferably vertical, with the cable gland on top.

**Materials: P31P & P32P**

Magnet core	Steel
Solenoid valve poppet	FPM
Solenoid valve housing	Techno polymer
Regulator body (P31P & P32P versions)	Aluminum
Regulator top housing	Nylon
Valve head	Brass & NBR
Remaining seals	NBR

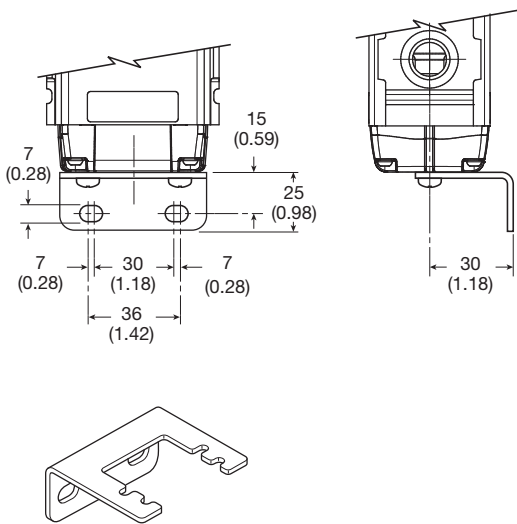
**P31P**

Dimensions inches (mm)



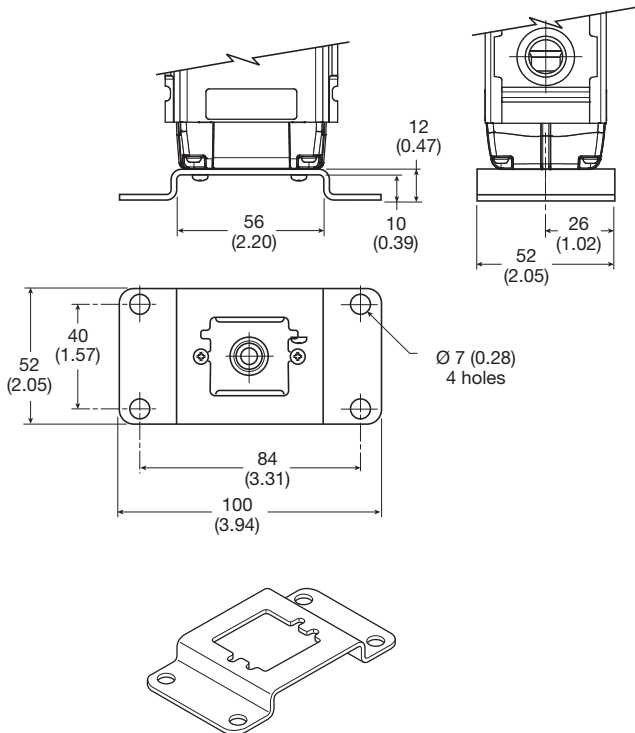
**L-Bracket**

**P3HKA00ML**



**Foot Bracket**

**P3HKA00MC**



**Cables**

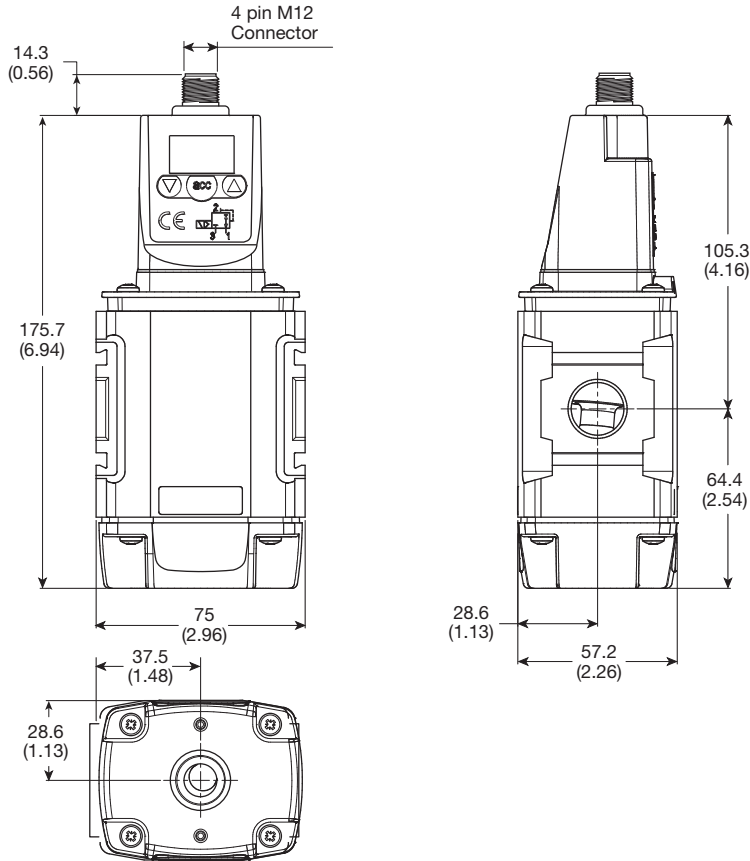
Description	Part Number
2 mtr. cable with moulded straight M12x1 connector	<b>CB-M12-4P-2M</b>

**Most Popular**



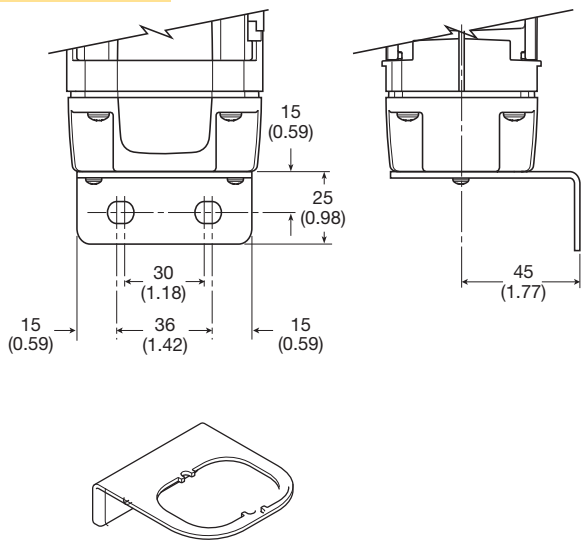
**P32P**

Dimensions inches (mm)



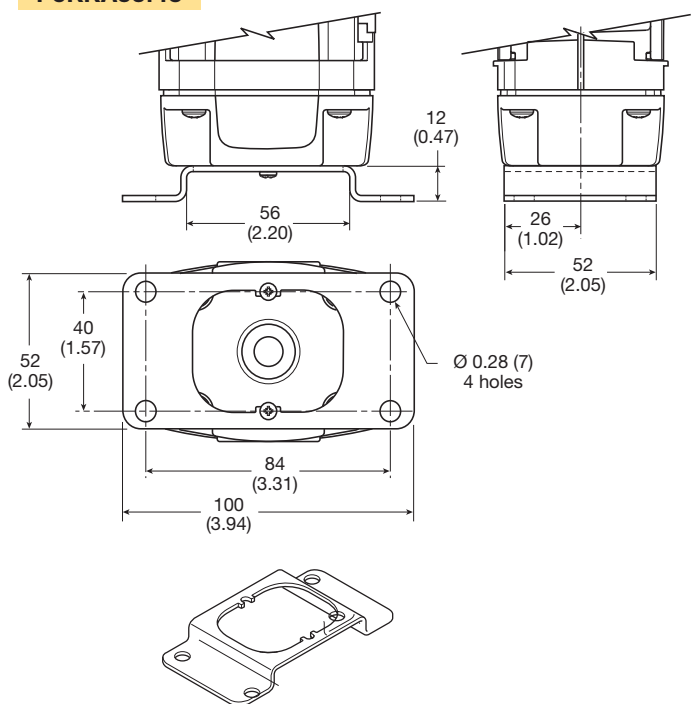
**L-Bracket**

**P3KKA00ML**



**Foot Bracket**

**P3KKA00MC**



**Cables**

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