

# **WILKERSON®**

Richland, Michigan 49083

**FRL-SIF-602**

**P17 Series**

**High Precision Regulator**

**P19 Series**

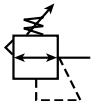
**High Flow Precision Regulator**

**ISSUED: July, 2004**

**Supersedes: None**



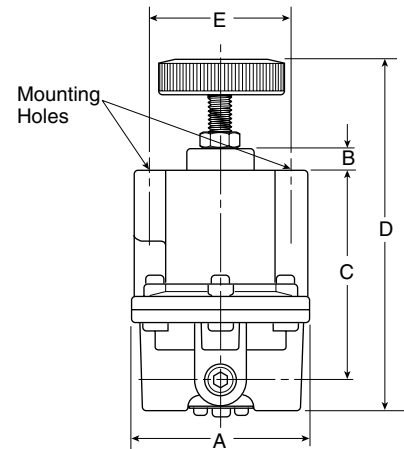
## P19 High Flow Precision Regulator



The P19 is designed for applications that require high flow capacity and accurate process control. A poppet valve which is balanced by utilizing a rolling diaphragm, insures a constant output pressure even during wide supply pressure variations. Stability of regulated pressure is maintained under varying flow conditions through the use of an aspirator tube which adjusts the air supply in accordance with the flow velocity.

### Features

- Adjusting Knob.
- Diaphragm Design for Good Repeatability, Response and Sensitivity.
- Balanced Poppet.
- Two Full Flow Gauge Ports.
- Precise Regulation. Will Sense a Decrease in Downstream Pressure as Small as 1/4" of Water.
- High Flow Capacity. Flows of 80 SCFM Attainable with Minimal Drop.
- Stable Output. Dampening Action of Aspiration Tube makes Regulator Insensitive to Changes in Flow.
- On-line Maintenance. Can be Serviced Without Removal of Air Line.



**P19 Regulator Dimensions**

A	B	C
3.00 76mm	0.38 10mm	3.40 86mm
D	E	
6.06 154mm	2.25 57mm	

### Applications

The P19 regulators are an ideal choice for any application that calls for accurately maintained output pressure under high flow conditions. This includes, but is not limited to such applications as:

#### Test Equipment

- Gas Mixing
- Valve Operators
- Positioning Cylinders
- Laboratory Equipment
- Web Tensioning
- Clutch & Brake Controls
- Roll Loading
- Test Panels
- Actuators

#### **⚠ WARNING**

**Do not connect regulator to bottled gas.**

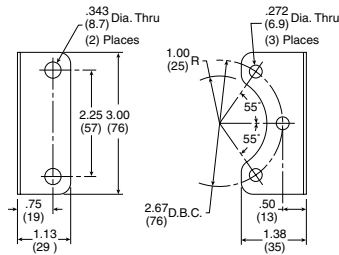
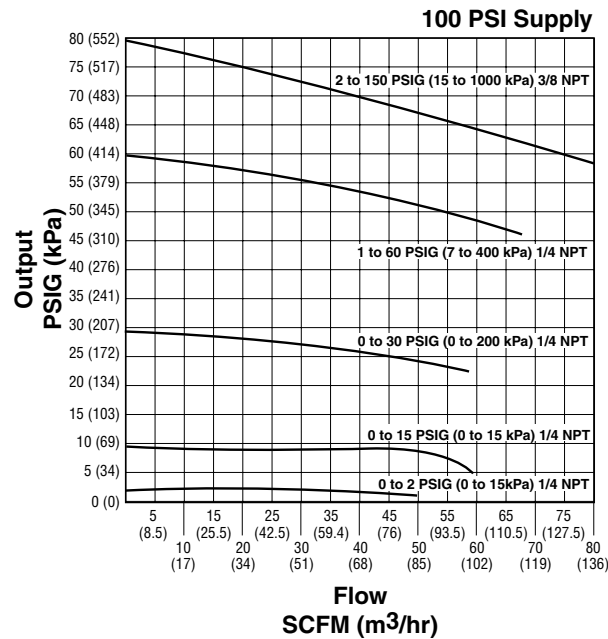
**Do not exceed maximum primary pressure rating.**

**Product rupture can cause serious injury.**

## Ordering Information

Relieving		Reduced Pressure Range (PSIG)			
		0 to 2	0 to 30	0 to 60	0 to 150
In / Out Ports	1/4"	P19-02-A00	P19-02-C00	P19-02-D00	P19-02-H00
	3/8"	N/A	P19-03-C00	P19-03-D00	P19-03-H00

## Technical Information



Mounting Bracket: 446-707-025

## P19 Regulator Kits &amp; Accessories

Mounting Bracket Kit ..... 446-707-025

## Service Kits – Relieving

0 to 2 PSIG .....	RKR230E
0 to 30 PSIG .....	RKR230B
0 to 60 PSIG .....	RKR230C
0 to 150 PSIG .....	RKR230D

## Materials of Construction

Adjusting Stem & Spring .....	Steel
Biased Spring .....	Stainless Steel
Body, Bonnet .....	Aluminum
Control Knob .....	Plastic
Diaphragm .....	Buna-N Elastomer and Polyester Fabric
Seals .....	Buna-N
Valve Poppet .....	Brass
Valve Poppet Seat .....	Buna-N

## Specifications

Constant Bleed Rate ..... 1.0 to 12.5 SCFH  
(Depending upon output pressure)Gauge Ports ..... Two Ports 1/4"  
(Can be used as additional Full Flow 1/4 Inch Outlet Ports)Effect of Supply Pressure Variation –  
Less than 0.1 PSIG for 100 PSIG (6.89 bar) changeExhaust (Relief) Capacity –  
4 SCFM with downstream pressure 5 PSIG above set pressure.  
Exhaust commences at 0.01 PSIG above set pressure.Flow Capacity –  
At 100 PSIG (6.89 bar) Supply,  
80 PSIG (5.5 bar) Outlet ..... 80 SCFM (37.8 dm<sup>3</sup>/s)Operating Temperature Range – ..... -40°C to 71°C  
(-40°F to 160°F)Operating Pressure Range –  
PRIMARY – Maximum  
PSIG 250  
bar 17

Port Threads ..... 1/4"

Exhaust (Relief) Capacity ..... 4.0 SCFM  
(Downstream pressure 5PSI above set pressure)Repeatability / Sensitivity ..... ±0.010 PSIG (±0.00068 bar)  
Inches of Water Column = 1/4"Response ..... 250 ms  
The valve will open to full flow and fill a volume of 1250 cm<sup>3</sup>

Weight ..... 1lb. 10 oz. (0.74 kg)