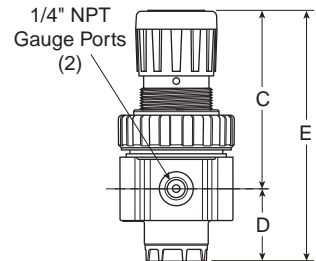
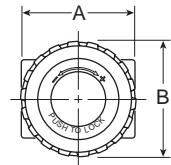


## 27R Regulator – Semi-Precision



### Features

- Fine adjustment sensitivity.
- Good repeatability and minimal pressure drop.
- High flow capacity.
- Two 1/4" gauge ports.
- Brass Poppet for long life.
- High Flow: 25 SCFM<sup>§</sup>
- Modular with 05 Series FRL.
- Non-rising, removable knob.
- Multiple porting options.



Port Size	Pressure	Part Number
1/4"	15 PSIG	<b>27R112A*</b>
1/4"	30 PSIG	<b>27R110A*</b>
1/4"	60 PSIG	<b>27R114A*</b>
1/4"	125 PSIG	<b>27R113A*</b>

27R Regulator Dimensions		
<b>A</b> 2.00 (51)	<b>B</b> 2.06 (52)	<b>C</b> 3.16 (80)
<b>D</b> 1.28 (32)	<b>E</b> 4.44 (113)	

Standard part numbers shown bold. For other models refer to ordering information below.

NOTE: 1.53 Dia. (39mm) hole required for panel mounting. Maximum panel thickness 1/4".

§ SCFM = Standard cubic feet per minute at 150 PSIG inlet, 90 PSIG no flow secondary setting and 5 PSIG pressure drop.

Inches (mm)

**⚠ WARNING**

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

### Ordering Information



<table border="1"> <thead> <tr> <th>Port Size</th> </tr> </thead> <tbody> <tr> <td>1 1/4 Inch</td> </tr> <tr> <td>2 3/8 Inch</td> </tr> </tbody> </table>	Port Size	1 1/4 Inch	2 3/8 Inch	<table border="1"> <thead> <tr> <th>Pressure Range</th> </tr> </thead> <tbody> <tr> <td>10 30 PSIG</td> </tr> <tr> <td>12 15 PSIG</td> </tr> <tr> <td>13 125 PSIG</td> </tr> <tr> <td>14 60 PSIG</td> </tr> </tbody> </table>	Pressure Range	10 30 PSIG	12 15 PSIG	13 125 PSIG	14 60 PSIG	<table border="1"> <thead> <tr> <th>Relief</th> </tr> </thead> <tbody> <tr> <td>A Relieving</td> </tr> </tbody> </table>	Relief	A Relieving	<table border="1"> <thead> <tr> <th>Engineering Level</th> </tr> </thead> <tbody> <tr> <td>* Will be Entered at Factory</td> </tr> </tbody> </table>	Engineering Level	* Will be Entered at Factory	<table border="1"> <thead> <tr> <th>Port Typ</th> </tr> </thead> <tbody> <tr> <td>Blank NPT</td> </tr> <tr> <td>1 BSPP</td> </tr> <tr> <td>2 BSPT</td> </tr> </tbody> </table>	Port Typ	Blank NPT	1 BSPP	2 BSPT	<table border="1"> <thead> <tr> <th>Options</th> </tr> </thead> <tbody> <tr> <td>Blank No Options</td> </tr> <tr> <td>L† Preset</td> </tr> <tr> <td>Non-Adjustable</td> </tr> <tr> <td>P† Preset Adjustable</td> </tr> <tr> <td>S† Pressure Limiter</td> </tr> <tr> <td>Max. Adjustable</td> </tr> <tr> <td>T† Pressure Limiter Max.</td> </tr> <tr> <td>Non-Adjustable</td> </tr> </tbody> </table>	Options	Blank No Options	L† Preset	Non-Adjustable	P† Preset Adjustable	S† Pressure Limiter	Max. Adjustable	T† Pressure Limiter Max.	Non-Adjustable	<table border="1"> <thead> <tr> <th>Preset / Pressure Limited</th> </tr> </thead> <tbody> <tr> <td>Blank None</td> </tr> <tr> <td>XXX* Preset</td> </tr> <tr> <td>Pressure</td> </tr> <tr> <td>XXX* Pressure Limited</td> </tr> </tbody> </table>	Preset / Pressure Limited	Blank None	XXX* Preset	Pressure	XXX* Pressure Limited
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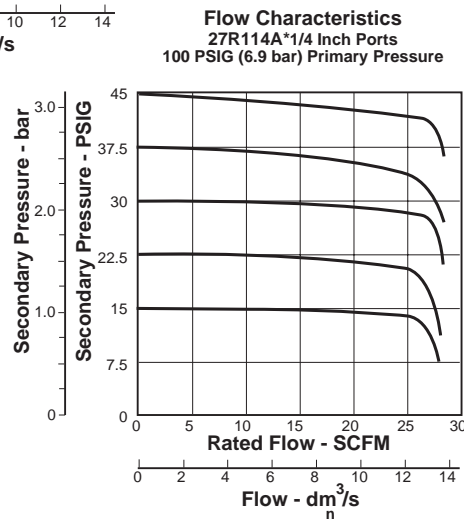
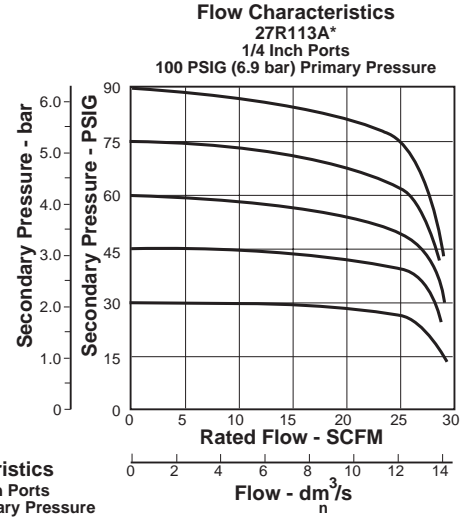
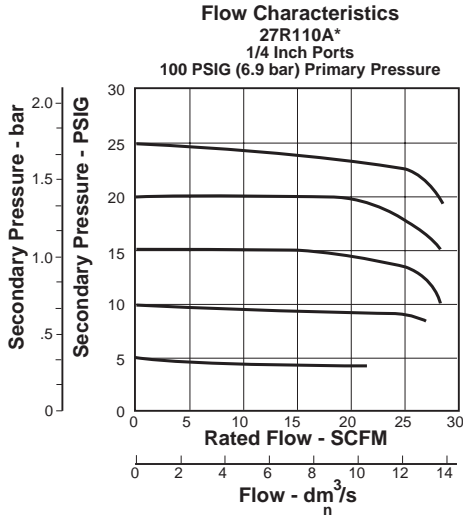
† Inlet Pressure is 100 PSIG. For other pressures, contact factory.

\* Available Preset / Pressure Limited Range, 10 to 90 PSIG in 5 PSIG increments. For higher pressures, contact factory. (Example: 065 = 65 PSIG)

**BOLD ITEMS ARE MOST POPULAR.**



**Technical Information**



**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.

**27R Regulator Kits & Accessories**

<b>Bonnet Assembly Kit</b> .....	PS910P
<b>Control Knob</b> .....	P0442001
<b>Gauges – 1-1/2" Dial Face</b>	
30 PSIG (0 to 2.1 bar).....	K4515N14030
60 PSIG (0 to 4.1 bar).....	K4515N14060
160 PSIG (0 to 11.0 bar).....	K4515N14160
300 PSIG (0 to 20.0 bar).....	K4515N14300
<b>2" Dial Face</b>	
60 PSIG (0 to 4.1 bar).....	K4520N14060
160 PSIG (0 to 11.0 bar).....	K4520N14160
300 PSIG (0 to 20.0 bar).....	K4520N14300
<b>Mounting Bracket Kit</b> .....	PS963P
<b>Panel Mount Nut – Metal</b> .....	PS964P
<b>Service Kit</b> .....	PS907P
<b>Springs – 1-30 PSIG Range</b> .....	
1-15 PSIG Range .....	P04427
0-60 PSIG Range .....	P04428
2-125 PSIG Range .....	P04426
.....	P04425

**Specifications**

<b>Bleed Rate</b> .....	2.0 SCFH
<b>Gauge Ports (2)</b> .....	1/4 Inch
<b>Effect of Supply Pressure Variation –</b>	
0.5 PSIG (0.04 bar) for 25 PSIG (1.7 bar) change in P <sup>1</sup>	

**Relief Capacity –**

0.5 SCFM (0.24 dm<sup>2</sup>/s) @ 5 PSIG (0.4 bar) increase in P<sup>2</sup>

**Flow Capacity –**

28 SCFM (13.2 dm<sup>2</sup>/s) @ 100 PSIG (6.9 bar) P<sup>1</sup>  
 and 20 PSIG (1.4 bar) P<sup>2</sup>

<b>Port Threads</b> .....	1/4, 3/8 Inch
<b>Maximum Inlet Pressure</b> .....	250 PSIG (17.2 bar)
<b>Relief Flow</b> .....	5.0 SCFM
<b>Repeatability</b> .....	±5 PSIG (±0.034 bar)
<b>Response –</b> .....	510 ms
The valve will open to full flow and fill a volume of 100 in <sup>3</sup>	
<b>Temperature Rating</b> .....	32°F to 175°F (0°C to 80°C)
<b>Weight</b> .....	1.0 lb. (0.45 kg)

**Materials of Construction**

<b>Poppet</b> .....	Brass
<b>Bonnet</b> .....	Plastic
<b>Body</b> .....	Zinc
<b>Collar, Knob</b> .....	Plastic
<b>Diaphragm</b> .....	Nitrile
<b>Bottom Cap</b> .....	Plastic
<b>Seals</b> .....	Nitrile
<b>Springs – Poppet &amp; Control</b> .....	Steel



<b>E</b>
Introduction
27 Series
Dial Regulators
Precisions Regulators
Precision Relief Valve
Precision Vacuum Regulator
Precision Filter / Regulator
Input Signal Amplifier