

*Section W*



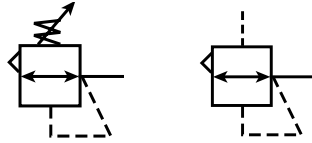
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**Bold text part numbers are standard.**  
Standard text part numbers may have longer lead times.

**W**

## Regulators



- Pipe Sizes 1/8 thru 2 Inch
- Flows to 1000 SCFM
- Pressures to 250 PSIG

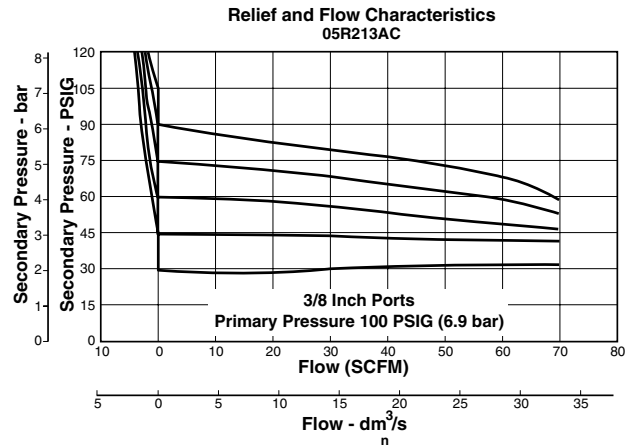
Air regulators are designed to provide quick response and accurate pressure regulation for the most demanding industrial applications.

- Miniature 14R Series, 1/8 and 1/4 Inch
- Miniature 20R Series, 1/8 and 1/4 Inch
- Economy 05R Series, 1/4 and 3/8 Inch
- Compact 06R Series, 1/4, 3/8 and 1/2 Inch
- Standard 07R Series, 3/8, 1/2 and 3/4 Inch
- Hi-Flow P3NR Series, 3/4, 1 and 1-1/2 Inch
- Hi-Flow 09R Series, 2 Inch
- Precision 27R Series, 1/4 and 3/8 Inch
- Compact 3550 Series, 1/4 Inch
- Pilot Controlled 10R, 11R, 12R, P3NR Series, 1/4 thru 1-1/2 Inch

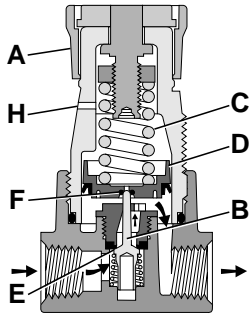
## Regulator Selection

1. Determine maximum system flow requirements.
2. Determine maximum allowable pressure drop at rated flow in SCFM.
3. Refer to flow chart and select regulator by choosing the curve that offers minimum pressure drop at desired flow in SCFM.

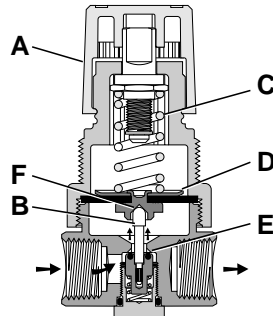
## Reading Flow Charts to Size Regulators



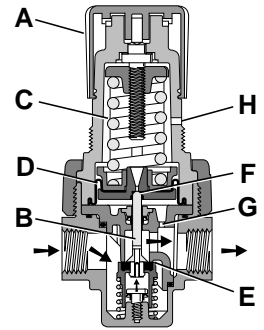
Once the required flow is determined for a pneumatic application the regulator or filter/regulator can be selected by using the flow chart. The chart serves two different purposes. To read the flow, use the right side of the chart. To read the relief characteristics use the left side of the chart. When reading the flow chart, first determine the secondary pressure that will be used. Find the appropriate pressure curve on the graph. Given an acceptable pressure drop for an application, follow the flow curve until it intersects the pressure drop point. This will give the flow at that particular pressure drop.



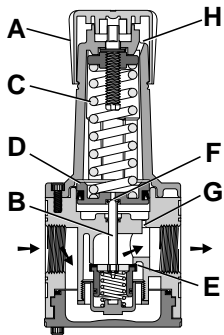
14R



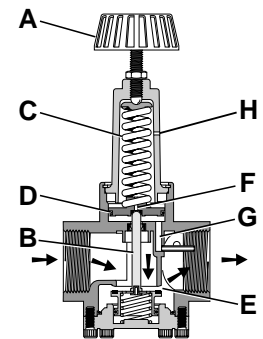
20RC



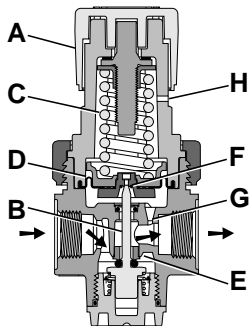
05R, 06R, 07R



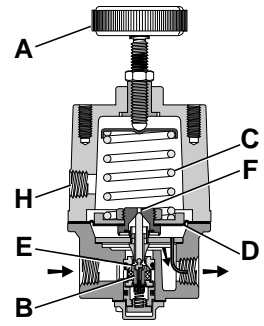
P3NR



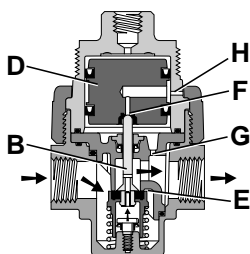
09R



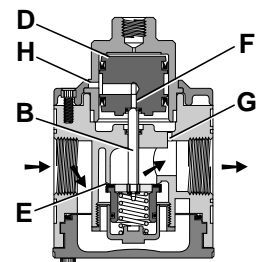
27R



3550



10R, 11R, 12R



P3NR Air Pilot

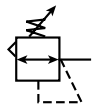
With the adjusting knob (A) turned fully counterclockwise (no spring load), and pressure supplied to the regulator inlet port, the valve poppet assembly (B) is closed. Turning the adjusting knob clockwise applies a load to control spring (C). This load causes the piston / diaphragm (D) and the valve poppet assembly (B) to move downward allowing flow across the seat area (E) created between the poppet assembly and the seat. Pressure in the downstream line is sensed below the piston / diaphragm (D) and offsets the load of spring (C). As downstream pressure rises, poppet assembly (B) and control piston (C) move upward until the area (E) is closed and the load of the spring (C) and pressure under piston / diaphragm (D) are in balance. A reduced outlet pressure has now been obtained, depending on spring load. Creating a demand downstream, such as opening a valve, results in a reduced pressure under the piston / diaphragm (D). The load of control spring (C) now causes the poppet assembly to move downward opening seat area (E) allowing air to flow to meet the downstream demand. The flow of downstream air is metered by the amount of opening (E).

During low flow requirements, the amount of opening at the seat (E) is small, while at high flows it is large. The downstream pressure signal, which regulates the amount of opening, requires an adjustment over this range, in order to attempt a constant output. This adjustment is the orifice (G), which is sized and located in such a manner as to provide a compensation to the downstream pressure signal transmitted to the piston. This effect is called aspiration and its effect is to maintain downstream pressure nearly constant over a wide range of flow demands.

Should downstream pressure exceed the desired regulated pressure, the excess pressure will cause the piston / diaphragm (D) to move upward against control spring (C), open vent hole (F), and vent the excess pressure to atmosphere through the hole in the bonnet (H). (This occurs in the relieving type regulator only.)

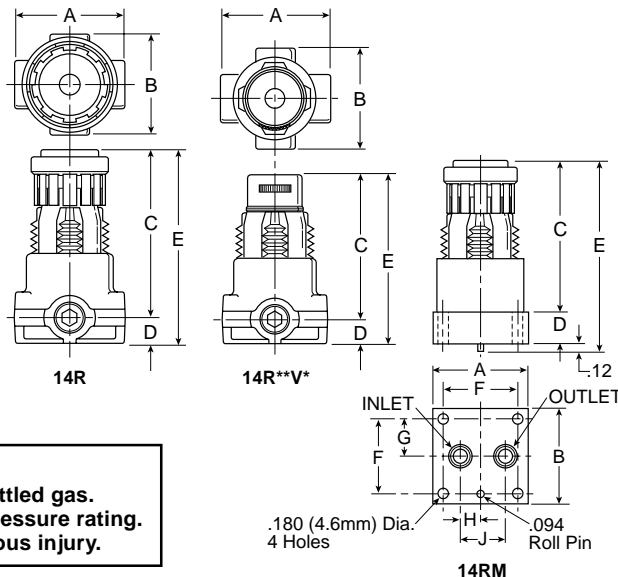
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## 14R Regulators – Miniature



### Features

- Unbalanced poppet standard.
- Solid control piston with lip seal for extended life.
- Non-rising adjusting knob.
- Compact, 2.9 inch (74mm) high by 1.65 inch (42mm) wide.
- Easily serviced.
- High Flow: 1/8" – 13 SCFM §  
 1/4" – 15 SCFM §



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

Port Size	NPT	BSPP
Without Gauge		
1/8"	<b>14R013FC</b>	14R013FC1
1/4"	<b>14R113FC</b>	14R113FC1
With 160 PSI Gauge		
1/8"	<b>14R018FC</b>	14R018FC1
1/4"	<b>14R118FC</b>	14R118FC1

14R Regulator Dimensions					
14R	A	B	C	D	E
	1.65 42mm	1.56 40mm	2.50 63,5mm	.38 10mm	2.88 73mm
14R**V*	A	B	C	D	E
	1.65 42mm	1.56 40mm	2.30 58,4mm	.38 10mm	2.68 68mm
14RM	A	B	C	D	E
	1.50 38mm	1.50 38mm	2.36 60mm	.50 13mm	2.98 73mm
	F	G	H	J	
	1.188 30mm	.594 15mm	.325 8mm	.725 18mm	

Standard part numbers shown, for other models refer to ordering information below.

NOTE: 1.218 Dia. (31mm) hole required for panel mounting.

§ SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no flow secondary setting and 10 PSIG pressure drop.

### Ordering Information



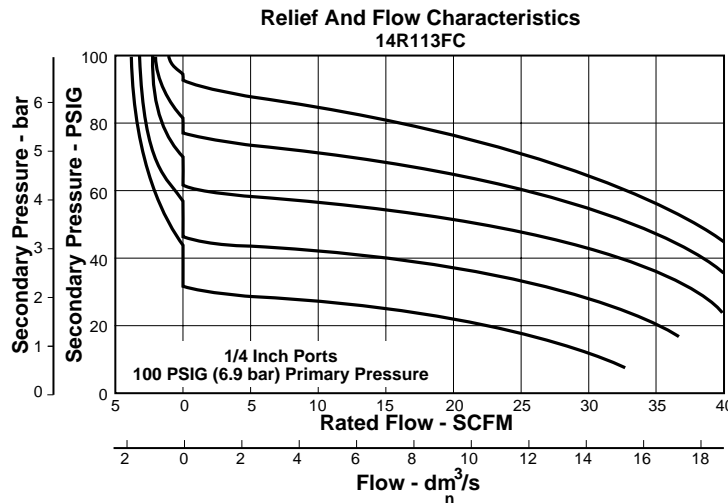
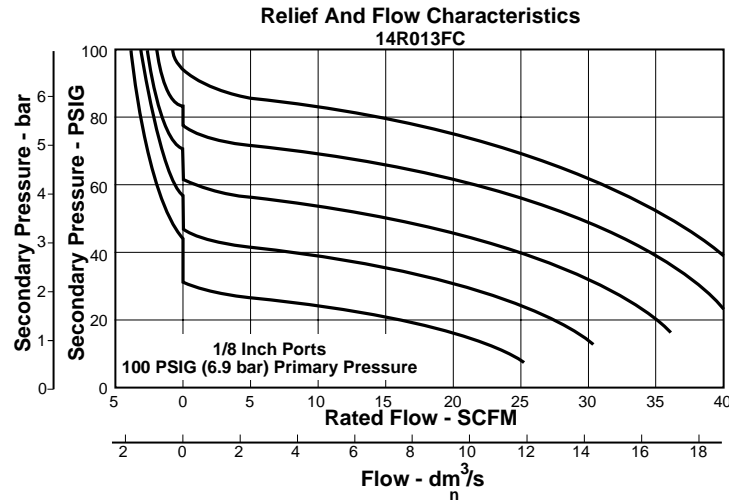
Port Size	Pressure Range	Adjustment	Engineering Level	Port Type	Options
<b>0. 1/8 Inch Pipe, 1/8 Inch Gauge Port</b> <b>1. 1/4 Inch Pipe, 1/8 Inch Gauge Port</b> B. 1/4 Inch Pipe, 1/4 Inch Gauge Port C. 1/8 Inch Pipe, No Gauge Port D. 1/4 Inch Pipe, No Gauge Port M. Manifold Mounting	Without Gauge Yellow Knob    Black Knob <b>10. 30 PSIG</b> B0. 30 PSIG <b>11. 60 PSIG</b> B1. 60 PSIG <b>12. 15 PSIG</b> B2. 15 PSIG <b>13. 125 PSIG</b> B3. 125 PSIG With Gauge (14R Only) <b>15. 30 PSIG</b> B5. 30 PSIG <b>16. 60 PSIG</b> B6. 60 PSIG <b>17. 15 PSIG</b> B7. 15 PSIG <b>18. 125 PSIG</b> B8. 125 PSIG	<b>F. Non-Rising Knob, Unbalanced Poppet, Relieving</b> G. Non-Rising Knob, Unbalanced Poppet, Non-Relieving V. ‡ Factory Preset, Non-Adjustable, Unbalanced, Relieving ‡ Specify inlet and outlet (set) pressures.	<b>C. Current</b>	Blank. NPT 1. BSPP 2. BSPT	Blank - No Options S. † Pressure Limiter Max. Adjustable T. † Pressure Limiter Max. Non-Adjustable † Specify inlet and outlet (set) pressures as well as maximum limited pressure.

NOTE: Shaded items are standard.

### 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.

**Technical Information**



**14R Regulator Kits & Accessories**

<b>Body Service Kit – Unbalanced</b> .....	PS424BP
<b>Bonnet Assembly Kit</b> .....	L01369
<b>Bonnet Tamperproof Kit</b> .....	P01265
<b>Gauges</b> – 30 PSIG, 1/8" NPT (0 to 200 kPa) .....	P530156
60 PSIG, 1/8" NPT (0 to 400 kPa) .....	P530154
160 PSIG, 1/8" NPT (0 to 1100 kPa) .....	P77413
60 PSIG, 1/4" NPT (0 to 400 kPa) .....	P781641
160 PSIG, 1/4" NPT (0 to 1100 kPa) .....	P781642
<b>Mounting Bracket Kit</b> (Includes Panel Mount Nut) .....	PS417BP
<b>Panel Mount Nuts</b> – Plastic .....	P78652
Metal .....	P01531
<b>Service Kits</b> – Non-Relieving .....	PS422P
Relieving .....	PS423P
<b>Springs</b> – 1-30 PSIG Range .....	P01175
1-60 PSIG Range .....	P01174
2-125 PSIG Range .....	P01173
1-15 PSIG Range .....	P01176

**Specifications**

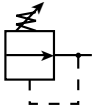
<b>Gauge Ports</b> .....	1/8 & 1/4 Inch
(Can be used for Full Flow)	
<b>Port Threads</b> .....	1/8 & 1/4 Inch
<b>Pressure &amp; Temperature Ratings</b> –	0 to 250 PSIG (0 to 1725 kPa)
	32°F to 125°F (0°C to 52°C)
<b>Secondary Pressure Ranges</b> –	
Standard Pressure .....	2 to 125 PSIG (14 to 863 kPa)
Medium Pressure .....	1 to 60 PSIG (6.9 to 414 kPa)
Medium Pressure .....	1 to 30 PSIG (6.9 to 207 kPa)
Low Pressure .....	1 to 15 PSIG (6.9 to 104 kPa)
<b>Weight</b> – 14R, 14RM, 14**V* .....	.3 lb. (.14 kg)

**Materials of Construction**

<b>Adjusting Nut</b> .....	Brass
<b>Adjusting Stem &amp; Spring</b> .....	Steel
<b>Body</b> .....	Zinc
<b>Bonnet, Seat, Piston &amp; Valve Poppet</b> .....	Plastic
<b>Seals</b> .....	Nitrile

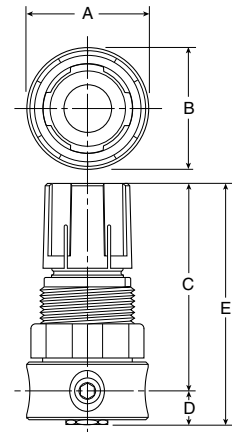


## 20R Regulators – Miniature (Water Service)



### Features

- Rugged brass body for water service.
- Diaphragm operated for fast response.
- Non-rising adjusting knob.
- Compact, 3.06 inch (77.79mm) high by 1.56 inch (39.8mm) wide.
- High Flow: 1.25 GPM



Port Size	NPT	BSPB
Without Gauge		
1/8"	<b>20R013GC</b>	20R013GC1
1/4"	<b>20R113GC</b>	20R113GC1

20R Regulator Dimensions		
A	B	C
1.56 39.8mm	1.56 39.8mm	2.56 65mm
D	E	
.50 12.7mm	3.06 77.7mm	

Standard part numbers shown, for other models refer to ordering information below.

NOTE: 1.25 Dia. (32mm) hole required for panel mounting.

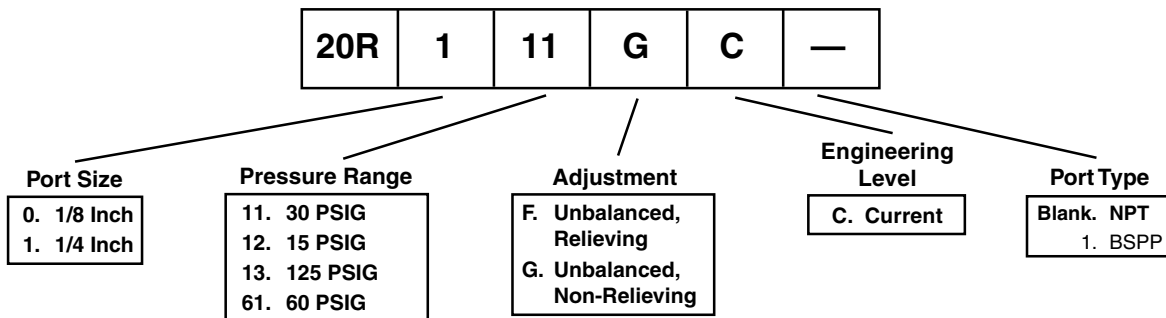
**⚠ WARNING**

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

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

**Product rupture can cause serious injury.**

### Ordering Information

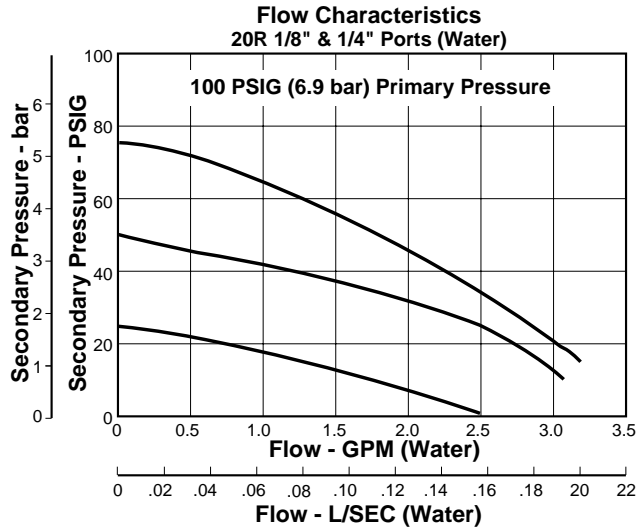


### CAUTION:

**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.

NOTE: BOLD OPTIONS ARE STANDARD.

**Technical Information**



**20R Regulator Kits & Accessories**

Bonnet Kit .....	PCKR364Y
Bonnet Tamperproof Kit .....	PCKR364T
Panel Mount Nut .....	PR05X51
Mounting Bracket Kit .....	SA161X57
<b>Repair Kits –</b>	
Relieving .....	PRKR164Y
Non-Relieving .....	PRKR163Y

**Specifications**

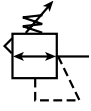
Gauge Ports (2) .....	1/8 Inch
Port Threads .....	1/8 & 1/4 Inch
Pressure Rating – Maximum .....	0 to 300 PSIG (0 to 2068 kPa)
<b>Secondary Pressure Ranges –</b>	
Standard Pressure .....	2 to 125 PSIG (14 to 863 kPa)
Medium Pressure .....	1 to 60 PSIG (6.9 to 414 kPa)
Medium Pressure .....	1 to 30 PSIG (6.9 to 207 kPa)
Low Pressure .....	1 to 15 PSIG (6.9 to 104 kPa)
Temperature Ratings .....	32°F to 125°F (0°C to 52°C)
Weight .....	5 lb. (.23 kg)



**Materials of Construction**

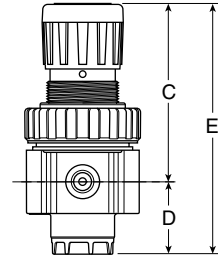
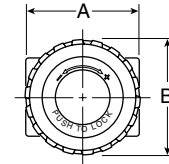
Adjusting Nut & Stem .....	Steel
Body, Valve Poppet, Bottom Plug, Diaphragm Button .....	Brass
Bonnet, Knob .....	Plastic
Seals, Diaphragm .....	Buna N
Springs .....	Steel

## 05R Regulators – Economy



### Features

- Secondary aspiration plus balanced poppet provides quick response and accurate pressure regulation.
- Rolling diaphragm for extended life.
- Removable non-rising knob for panel mounting and tamper resistance.
- Easily serviced.
- Reverse Flow.
- High Flow: 1/4" – 30 SCFM<sup>§</sup>  
 3/8" – 40 SCFM<sup>§</sup>



Port Size	NPT	BSPP
Without Gauge		
1/4"	<b>05R113AD</b>	05R113AD1
3/8"	<b>05R213AD</b>	05R213AD1
With 160 PSI Gauge		
1/4"	<b>05R118AD</b>	05R118AD1
3/8"	<b>05R218AD</b>	05R218AD1

05R Regulator Dimensions		
<b>A</b> 2.00 51mm	<b>B</b> 2.06 52mm	<b>C</b> 3.16 80mm
<b>D</b> 1.28 32mm	<b>E</b> 4.44 113mm	

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

Standard part numbers shown, for other models refer to ordering information below.

NOTE: 1.53 Dia. (39mm) hole required for panel mounting.

§ SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no flow secondary setting and 10 PSIG pressure drop.

### Ordering Information

<b>05R 1 13 A D — —</b>					
<b>Port Size</b>	<b>Pressure Range</b>	<b>Adjustment &amp; Relieving</b>	<b>Engineering Level</b>	<b>Port Type</b>	<b>Options</b>
1. 1/4 Inch 2. 3/8 Inch	<u>Without Gauge</u> 10. 30 PSIG 11. 60 PSIG 13. 125 PSIG 14. 200 PSIG <u>*With Gauge</u> 17. 30 PSIG 16. 60 PSIG 18. 125 PSIG 19. 200 PSIG	A. Non-Rising Knob, Relieving L. Non-Rising Knob, Non-Relieving V.† Non-Adjustable, Relieving	D. Current	Blank. NPT 1. BSPP 2. BSPT	Blank. No Options P.‡ Preset S.† Pressure Limiting Adjustable T.† Pressure Limiting Tamperproof V. Fluorocarbon

\* Includes 2-1/2" Dial Face Gauge

‡ Specify inlet and outlet (set) pressures.

† Specify inlet and limited pressures.

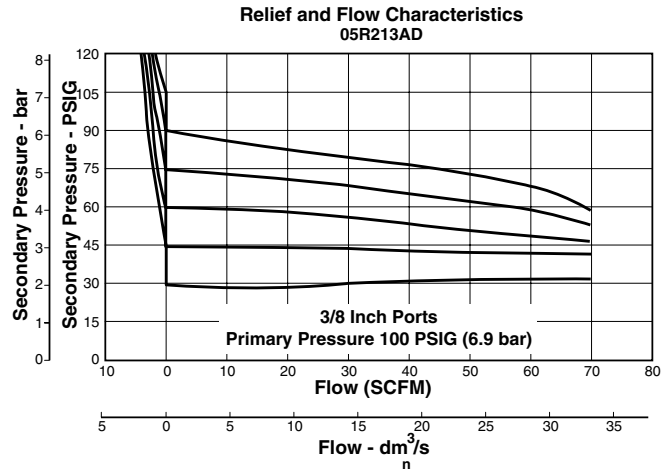
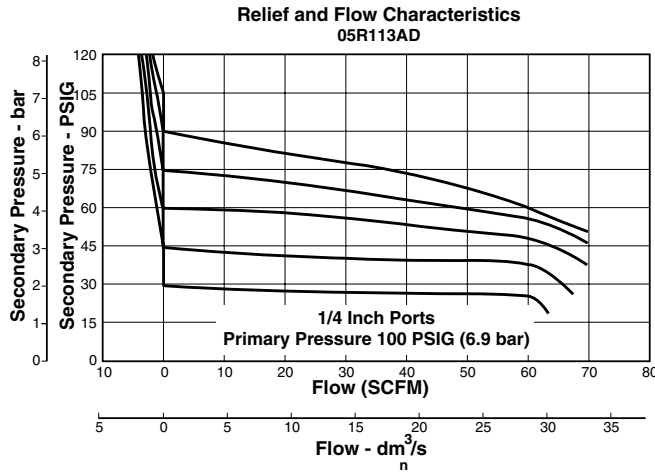
**NOTE: BOLD OPTIONS ARE STANDARD.**

### 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.



**Technical Information**



**05R Regulator Kits & Accessories**

<b>Bonnet Assembly Kit</b> .....	PS915P
<b>Control Knob</b> .....	P04420
<b>Gauges – 1-1/2" Dial Face</b>	
30 PSIG (0 to 200 kPa) .....	RRP-96-663
60 PSIG (0 to 400 kPa) .....	RRP-96-664
160 PSIG (0 to 1100 kPa) .....	RRP-96-665
300 PSIG (0 to 2000 kPa) .....	RRP-96-666
<b>2" Dial Face</b>	
60 PSIG (0 to 400 kPa) .....	P781641
160 PSIG (0 to 1100 kPa) .....	P781642
300 PSIG (0 to 2000 kPa) .....	P781643
<b>Mounting Bracket Kit</b> .....	PS963P
<b>Panel Mount Nut – Metal</b> .....	PS964P
<b>Springs – 1-30 PSIG Range</b> .....	P04427
1-60 PSIG Range .....	P04426
2-125 PSIG Range .....	P04425
2-200 PSIG .....	P02934
<b>Service Kit –Relieving</b> .....	PS908P
Relieving (Fluorocarbon) .....	PS908VP
Non-Relieving .....	PS909P
Non-Relieving (Fluorocarbon) .....	PS909VP

**Specifications**

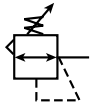
<b>Gauge Ports</b> .....	Two Ports 1/4"
<b>Port Threads</b> .....	1/4", 3/8"
<b>Primary Pressure Rating –</b>	
Maximum Primary Pressure .....	250 PSIG (17.2 bar) Max.
For Secondary Pressure Ranges see above charts.	
<b>Temperature Rating</b> .....	32°F to 175°F (0°C to 80°C)
<b>Weight</b> .....	1.1 lb. (.49 kg)

**Materials of Construction**

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

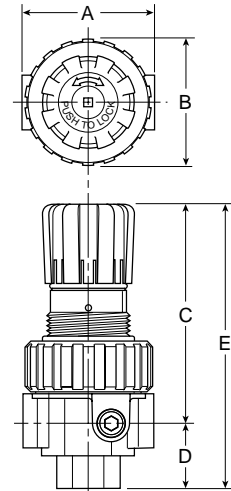


## 06R Regulators – Compact



### Features

- Secondary aspiration plus balanced poppet provides quick response and accurate pressure regulation.
- Rolling diaphragm for extended life.
- Two high flow 1/4" gauge ports can be used as additional outlets.
- Easily serviced.
- Removable non-rising knob for panel mounting and tamper resistance.
- High Flow: 1/4" – 53 SCFM §  
 3/8" – 60 SCFM §  
 1/2" – 75 SCFM §



Port Size	NPT	BSPP
Without Gauge		
1/4"	<b>06R113AC</b>	06R113AC1
3/8"	<b>06R213AC</b>	06R213AC1
1/2"	<b>06R313AC</b>	06R313AC1
With 160 PSI Gauge		
1/4"	<b>06R118AC</b>	06R118AC1
3/8"	<b>06R218AC</b>	06R218AC1
1/2"	<b>06R318AC</b>	06R318AC1

06R Regulator Dimensions		
A	B	C
2.81 71mm	2.74 70mm	4.69 119mm
D	E	
1.39 35mm	6.08 154mm	

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

Standard part numbers shown, for other models refer to ordering information below.

NOTE: 2.00 Dia. (51mm) hole required for panel mounting.

§ SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no flow secondary setting and 10 PSIG pressure drop.

## Ordering Information

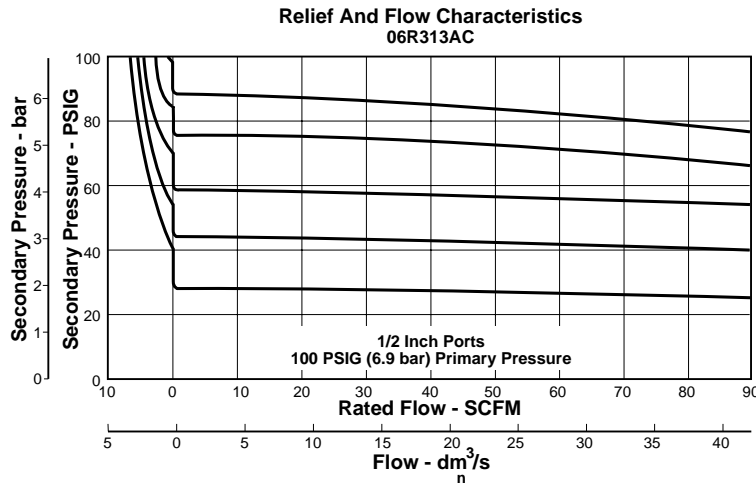
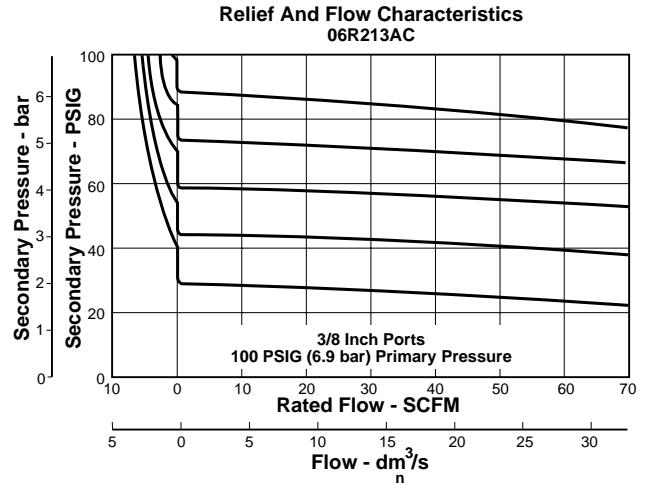
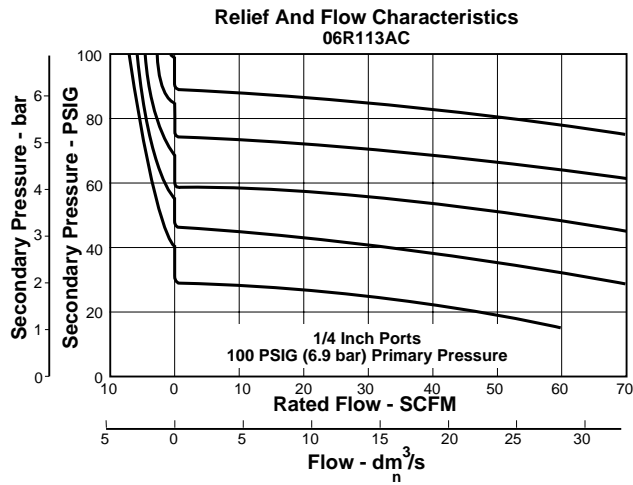
Port Size	Pressure Range	Adjustment & Relieving	Engineering Level	Port Type	Options												
1. 1/4 Inch 2. 3/8 Inch 3. 1/2 Inch	<table border="1"> <thead> <tr> <th>Without Gauge</th> <th>With Gauge</th> </tr> </thead> <tbody> <tr> <td>10. 30 PSIG</td> <td>17. 30 PSIG</td> </tr> <tr> <td>11. 60 PSIG</td> <td>16. 60 PSIG</td> </tr> <tr> <td>13. 125 PSIG</td> <td>18. 125 PSIG</td> </tr> <tr> <td>15. 250 PSIG</td> <td>21. 250 PSIG</td> </tr> <tr> <td>24. 30 PSIG Non-Adjustable (Use with V option only)</td> <td></td> </tr> </tbody> </table>	Without Gauge	With Gauge	10. 30 PSIG	17. 30 PSIG	11. 60 PSIG	16. 60 PSIG	13. 125 PSIG	18. 125 PSIG	15. 250 PSIG	21. 250 PSIG	24. 30 PSIG Non-Adjustable (Use with V option only)		A. Non-Rising Knob, Relieving L. Non-Rising Knob, Non-Relieving V. Non-Adjustable, Relieving	C. Current	Blank. NPT 1. BSPP 2. BSPT	Blank. No Options R. Reverse Flow
Without Gauge	With Gauge																
10. 30 PSIG	17. 30 PSIG																
11. 60 PSIG	16. 60 PSIG																
13. 125 PSIG	18. 125 PSIG																
15. 250 PSIG	21. 250 PSIG																
24. 30 PSIG Non-Adjustable (Use with V option only)																	

### 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.

NOTE: Shaded items are standard.

**Technical Information**



**06R Regulator Kits & Accessories**

Bonnet Assembly Kit .....	PS715P
Control Knob .....	P04069B
Gauges – 60 PSIG (0 to 400 kPa) .....	P781641
160 PSIG (0 to 1100 kPa) .....	P781642
300 PSIG (0 to 2000 kPa) .....	P781643
Mounting Bracket Kit (Includes Panel Mount Nut) .....	PS707P
Panel Mount Nut – Plastic .....	P04082
Metal .....	P04079B
Reverse Flow Service Conversion Kit – Relieving .....	PS708RP
Non-Relieving .....	PS709RP
Service Kit – Relieving (Includes Poppet) .....	PS708P
Non-Relieving (Includes Poppet) .....	PS709P
Springs – 1-30 PSIG Range .....	P01698
1-60 PSIG Range .....	P04062
2-125 PSIG Range .....	P04063
5-250 PSIG Range .....	P04064
Tamperproof Kit .....	PS737P

**Specifications**

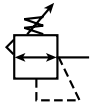
<b>Gauge Ports</b> .....	Two Ports 1/4"
(Can be used as additional High Flow 1/4 Inch Outlet Ports)	
<b>Port Threads</b> .....	1/4", 3/8", 1/2"
<b>Primary Pressure Rating –</b>	
Maximum Primary Pressure .....	250 PSIG (1725 kPa)
<b>Secondary Pressure Ranges –</b>	
Standard Pressure .....	2 to 125 PSIG (14 to 863 kPa)
Low Pressure .....	1 to 60 PSIG (6.9 to 414 kPa)
High Pressure .....	5 to 250 PSIG (35 to 1725 kPa)
<b>Temperature Rating</b> .....	32°F to 175°F (0°C to 80°C)
<b>Weight</b> .....	1.6 lb. (.7 kg)

**Materials of Construction**

<b>Adjusting Stem</b> .....	Steel
<b>Body</b> .....	Zinc
<b>Bonnet, Piston Stem, Valve Poppet &amp; Cap</b> .....	Plastic
<b>Collar, Knob</b> .....	Plastic
<b>Diaphragm</b> .....	Nitrile
<b>Seals</b> .....	Nitrile
<b>Springs – Poppet</b> .....	Stainless
Control .....	Steel

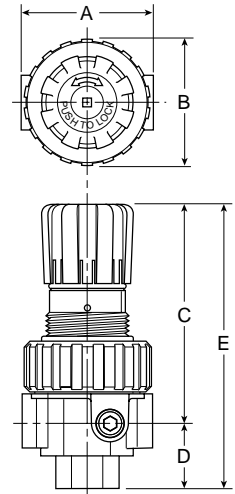


## 07R Regulators – Standard



### Features

- Secondary aspiration plus balanced poppet provides quick response and accurate pressure regulation.
- Rolling diaphragm for extended life.
- Two high flow 1/4" gauge ports can be used as additional outlets.
- Easily serviced.
- Removable non-rising knob for panel mounting and tamper resistance.
- High Flow: 3/8" – 70 SCFM §  
 1/2" – 90 SCFM §  
 3/4" – 90 SCFM §



Port Size	NPT	BSPP
Without Gauge		
3/8"	<b>07R213AC</b>	07R213AC1
1/2"	<b>07R313AC</b>	07R313AC1
3/4"	<b>07R413AC</b>	07R413AC1
With 160 PSI Gauge		
3/8"	<b>07R218AC</b>	07R218AC1
1/2"	<b>07R318AC</b>	07R318AC1
3/4"	<b>07R418AC</b>	07R418AC1

07R Regulator Dimensions		
A	B	C
3.24 82mm	2.74 70mm	4.79 122mm
D	E	
1.61 41mm	6.40 163mm	

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

Standard part numbers shown, for other models refer to ordering information below.

NOTE: 2.00 Dia. (51mm) hole required for panel mounting.

§ SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no flow secondary setting and 10 PSIG pressure drop.

## Ordering Information

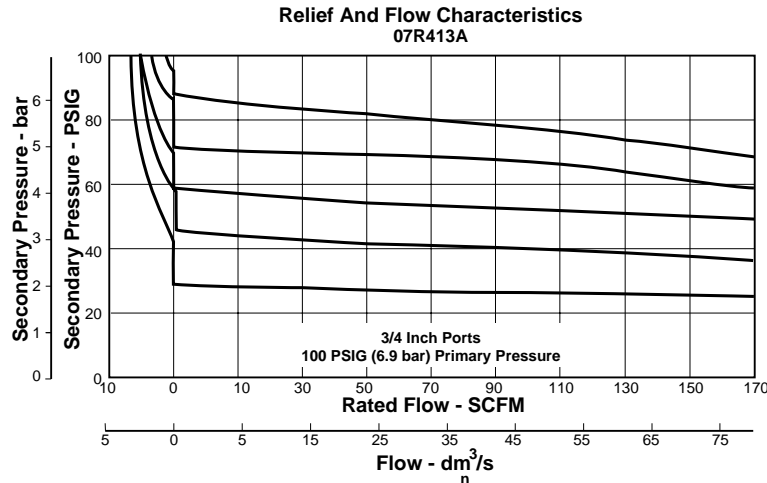
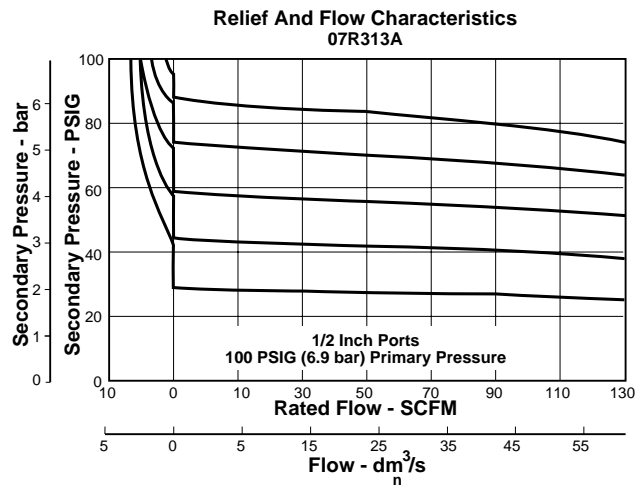
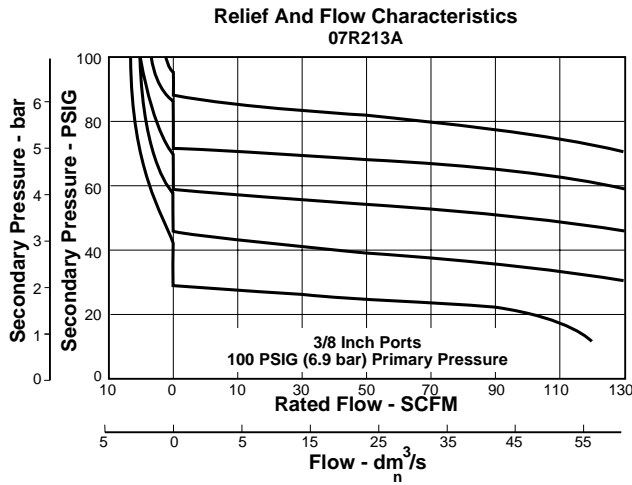
<b>07R</b>							<b>3</b>		<b>13</b>		<b>A</b>		<b>C</b>		<b>—</b>		<b>—</b>	
<b>Port Size</b>		<b>Pressure Range</b>				<b>Adjustment &amp; Relieving</b>			<b>Engineering Level</b>		<b>Port Type</b>		<b>Options</b>					
2. 3/8 Inch 3. 1/2 Inch 4. 3/4 Inch		Without Gauge		With Gauge		A. Non-Rising Knob, Relieving			C. Current		Blank. NPT 1. BSPP 2. BSPT		Blank. No Options R. Reverse Flow					
		10. 30 PSIG		17. 30 PSIG		L. Non-Rising Knob, Non-Relieving												
		11. 60 PSIG		16. 60 PSIG		V. Non-Adjustable, Relieving												
		13. 125 PSIG		18. 125 PSIG														
		15. 250 PSIG		21. 250 PSIG														
		24. 30 PSIG Non-Adjustable (Use with V option only)																

### 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.

NOTE: Shaded items are standard.

**Technical Information**



**07R Regulator Kits & Accessories**

Bonnet Assembly Kit .....	PS715P
Control Knob .....	P04069B
Gauges – 60 PSIG (0 to 400 kPa) .....	P781641
160 PSIG (0 to 1100 kPa) .....	P781642
300 PSIG (0 to 2000 kPa) .....	P781643
Mounting Bracket Kit (Includes Panel Mount Nut) .....	PS807P
Panel Mount Nut – Plastic .....	P04082
Metal .....	P04079B
Reverse Flow Service Conversion Kit – Relieving .....	PS808RP
Non-Relieving .....	PS809RP
Service Kit –Relieving (Includes Poppet) .....	PS808P
Non-Relieving (Includes Poppet) .....	PS809P
Springs – 1-30 PSIG Range .....	P01698
1-60 PSIG Range .....	P04062
2-125 PSIG Range .....	P04063
5-250 PSIG Range .....	P04064
Tamperproof Kit .....	PS737P

**Specifications**

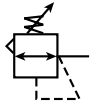
Gauge Ports .....	Two Ports 1/4"
(Can be used as additional High Flow 1/4 Inch Outlet Ports)	
Port Threads .....	3/8", 1/2", 3/4"
Primary Pressure Rating –	
Maximum Primary Pressure .....	250 PSIG (1725 kPa)
Secondary Pressure Ranges –	
Standard Pressure .....	2 to 125 PSIG (14 to 863 kPa)
Low Pressure .....	1 to 60 PSIG (6.9 to 414 kPa)
High Pressure .....	5 to 250 PSIG (35 to 1725 kPa)
Temperature Rating .....	32°F to 175°F (0°C to 80°C)
Weight .....	2.5 lb. (1.1 kg)

**Materials of Construction**

Adjusting Stem .....	Steel
Body .....	Zinc
Bonnet, Piston Stem, Valve Poppet & Cap .....	Plastic
Collar, Knob .....	Plastic
Diaphragm .....	Nitrile
Seals .....	Nitrile
Springs – Poppet .....	Stainless
Control .....	Steel

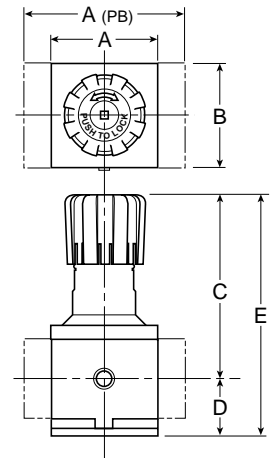


## P3NR Regulators – Hi-Flow



### Features

- Port blocks (PB) available to provide 1-1/2" port extension to 1" ported bodies.
- Self relieving feature plus balanced poppet provides quick response and accurate pressure regulation.
- Solid control piston for extended life.
- High Flow: 3/4" – 200 SCFM §  
 1" – 300 SCFM §  
 1-1/2" – 300 SCFM §



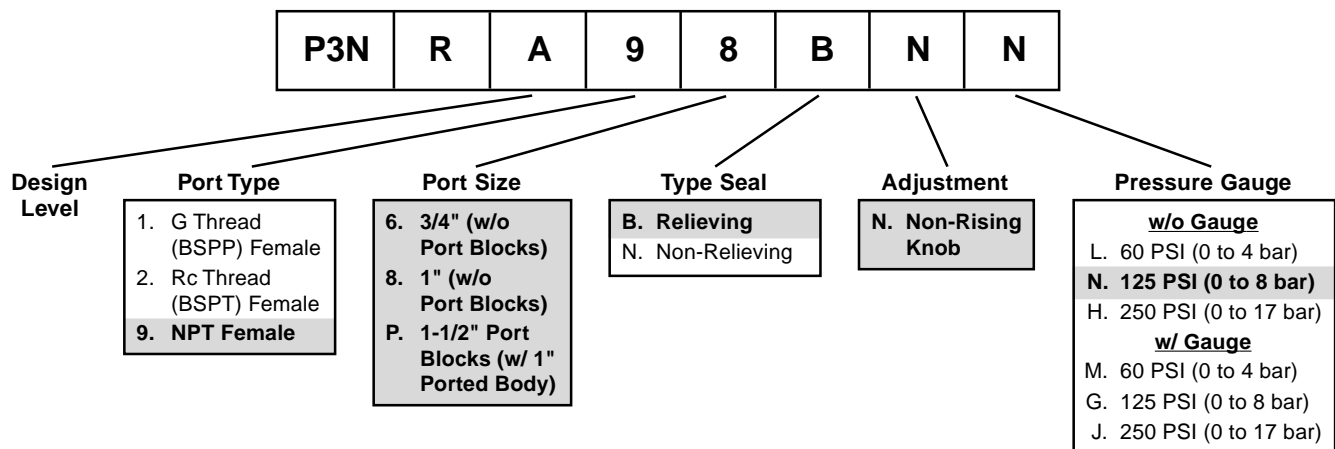
Port Size	NPT	BSPP
Without Gauge		
3/4"	<b>P3NRA96BNN</b>	P3NRA16BNN
1"	<b>P3NRA98BNN</b>	P3NRA18BNN
1-1/2" #	<b>P3NRA9PBNN</b>	P3NRA1PBNN
With 160 PSI Gauge		
3/4"	<b>P3NRA96BNG</b>	P3NRA16BNG
1"	<b>P3NRA98BNG</b>	P3NRA18BNG
1-1/2" #	<b>P3NRA9PBNG</b>	P3NRA1PBNG

P3NR Regulator Dimensions		
<b>A</b>	<b>A (PB)</b>	<b>B</b>
3.62 92mm	5.59 142mm	3.62 92mm
<b>C</b>	<b>D</b>	<b>E</b>
6.38 162mm	2.08 53mm	8.46 215mm

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

Standard part numbers shown, for other models refer to ordering information below.  
 # 1" Port Body with 1-1/2" Port Block.  
 § SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no flow secondary setting and 10 PSIG pressure drop.

### Ordering Information

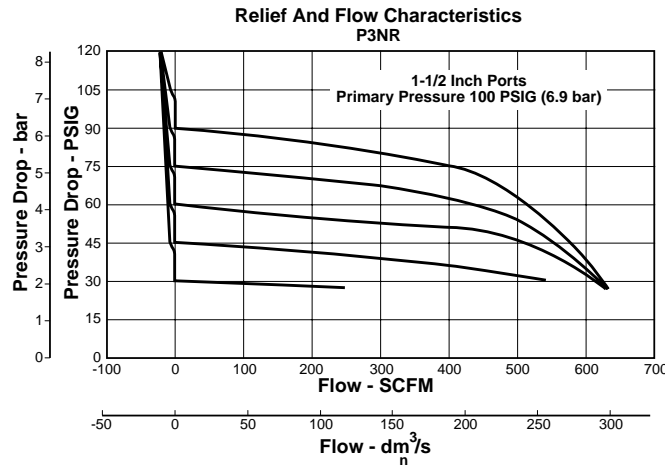
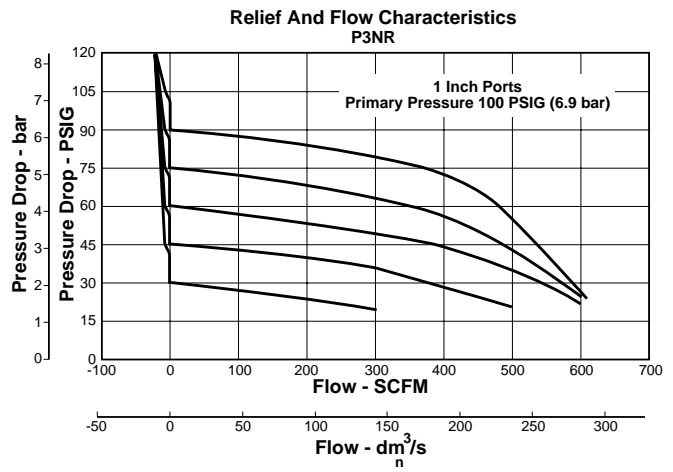
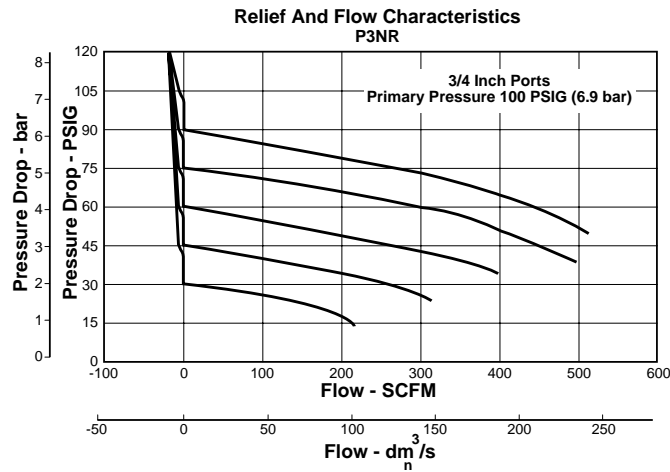


### CAUTION:

**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.

NOTE: Shaded items are standard.

Technical Information



P3NR Regulator Kits & Accessories

Control Knob .....	P3NKA00PN
Gauges – 60 PSIG (0 to 400 kPa) .....	P781641
160 PSIG (0 to 1100 kPa) .....	P781642
300 PSIG (0 to 2000 kPa) .....	P781643
Mounting Bracket Kit .....	P3NKA00MW
Service Kit – Relieving .....	P3NKA00RR
Non-Relieving .....	P3NKA00RN
Springs – 1-60 PSIG Range .....	C10A1304
2-125 PSIG Range .....	C10A1308
5-250 PSIG Range .....	C10A1317

Specifications

Gauge Ports .....	Two Ports 1/4"
(Can be used as additional High Flow 1/4 Inch Outlet Ports)	
Port Threads .....	3/4", 1", 1-1/2"
Primary Pressure Rating –	
Maximum Primary Pressure .....	250 PSIG (1725 kPa)
Temperature Rating .....	32°F to 175°F (0°C to 80°C)
Weight – 3/4" .....	4.2 lb. (1.9 kg)
1" .....	4.2 lb. (1.9 kg)
1-1/2" # .....	5.3 lb. (2.4 kg)

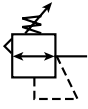
Materials of Construction

Adjusting Stem .....	Steel
Body .....	Aluminum
Bonnet .....	Aluminum
Knob .....	Plastic
Piston .....	Plastic
Poppet Assembly .....	Brass
Seals .....	Nitrile
Springs – Poppet & Control .....	Steel

# 1" Port Body with 1-1/2" Port Block.

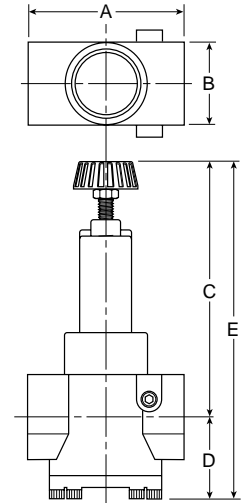


## 09R Regulators – Hi-Flow



### Features

- Piston design for reduced downtime.
- High flow.
- Balanced poppet for quick and accurate regulation.
- Two full flow 1/4" gauge ports which can be used as additional outlets.
- Self relieving piston standard.
- High Flow: 2" – 1000 SCFM<sup>§</sup>



Port Size	NPT
Without Gauge	
2"	<b>09R813BA</b>

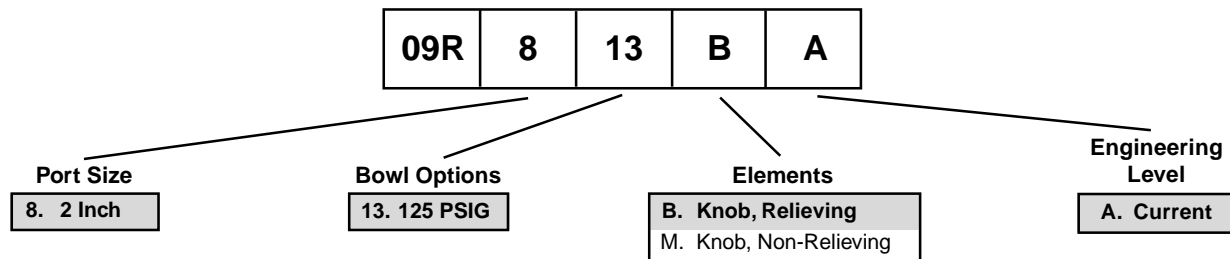
**⚠ WARNING**  
 Do not connect regulator to bottled gas.  
 Do not exceed maximum primary pressure rating.  
 Product rupture can cause serious injury.

09R Regulator Dimensions		
<b>A</b> 5.30 135mm	<b>B</b> 3.60 91mm	<b>C</b> 9.10 231mm
<b>D</b> 2.80 71mm	<b>E</b> 11.90 302mm	

Standard part numbers shown, for other models refer to ordering information below.

<sup>§</sup> SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no flow secondary setting and 10 PSIG pressure drop.

### Ordering Information



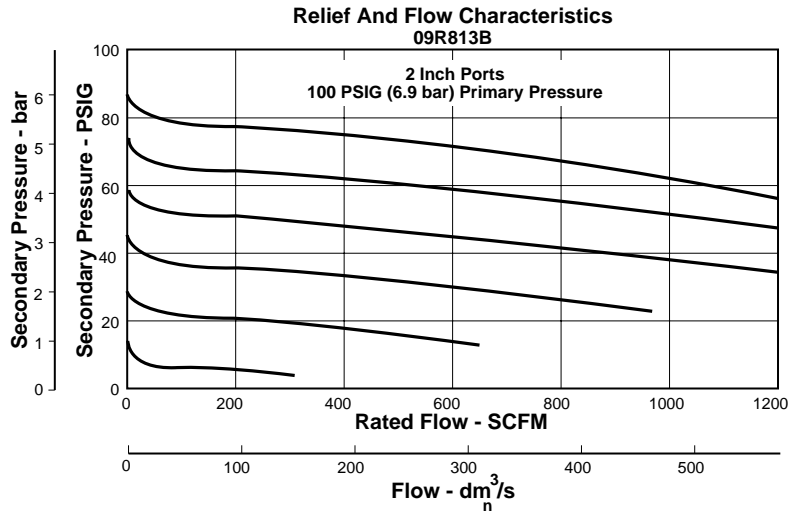
### CAUTION:

**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.

NOTE: Shaded items are standard.



**Technical Information**



**09R Regulator Kits & Accessories**

- Body Service Kit ..... PS603P
- Gauges – 160 PSIG (0 to 1100 kPa) ..... P781642
- Mounting Bracket Kit ..... PS605P
- Service Kit – Non-Relieving ..... PS604P
- Springs – 2-125 PSIG Range ..... PS602P

**Specifications**

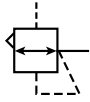
- Gauge Ports ..... Two Ports 1/4"  
 (Can be used as additional Full Flow 1/4 Inch Outlet Ports)
- Port Threads ..... 2"
- Primary Pressure Rating –  
 Maximum Primary Pressure ..... 250 PSIG (1725 kPa)
- Secondary Pressure Range – ..... 10 to 125 PSIG (69 to 863 kPa)
- Temperature Rating ..... 32°F to 150°F (0°C to 66°C)
- Weight ..... 10.82 lb. (53 kg)

**Materials of Construction**

- Adjusting Stem & Springs ..... Steel
- Body ..... Zinc Alloy, Die Cast
- Bonnet, Piston Stem, Valve Poppet & Cap ..... Aluminum
- Piston, Cap ..... Plastic
- Seals ..... Nitrile

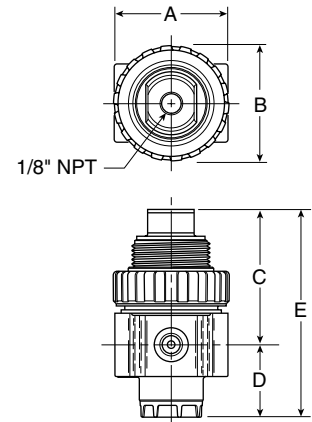


## 10R Pilot Controlled Regulator – Economy



### Features

- Unique balanced poppet valve minimizes secondary pressure fluctuations.
- Solid control piston with resilient seat for service-free operation.
- Easily serviced.
- High Flow: 1/4" – 50 SCFM<sup>§</sup>  
 3/8" – 50 SCFM<sup>§</sup>



Port Size	NPT	BSPP
Without Gauge		
1/4"	<b>10R115PB</b>	10R115PB1
3/8"	<b>10R215PB</b>	10R215PB1
With 160 PSI Gauge		
1/4"	<b>10R121PB</b>	10R121PB1
3/8"	<b>10R221PB</b>	10R221PB1

10R Regulator Dimensions		
<b>A</b>	<b>B</b>	<b>C</b>
2.00 51mm	2.06 52mm	2.43 61mm
<b>D</b>	<b>E</b>	
1.28 32mm	3.71 93mm	

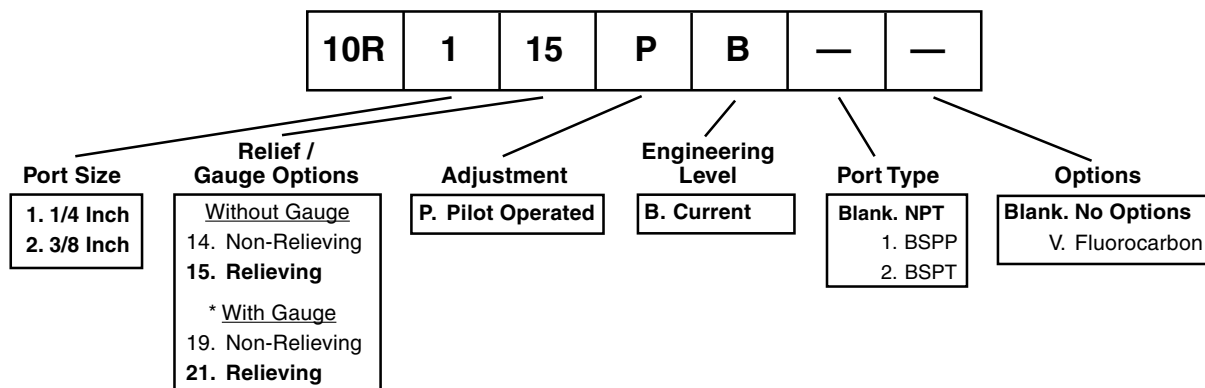
**⚠ WARNING**  
 Do not connect regulator to bottled gas.  
 Do not exceed maximum primary pressure rating.  
 Product rupture can cause serious injury.

Standard part numbers shown, for other models refer to ordering information below.

NOTE: 1.53 Dia. (39mm) hole required for panel mounting.

§ SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no flow secondary setting and 10 PSIG pressure drop.

### Ordering Information



\* Includes 2-1/2" Dial Face Gauge

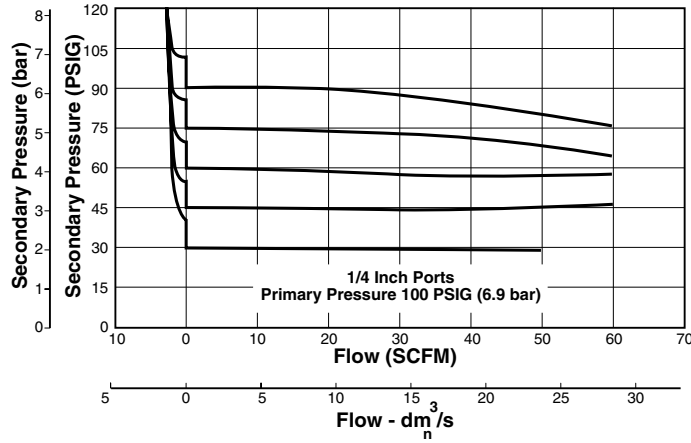
### CAUTION:

**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.

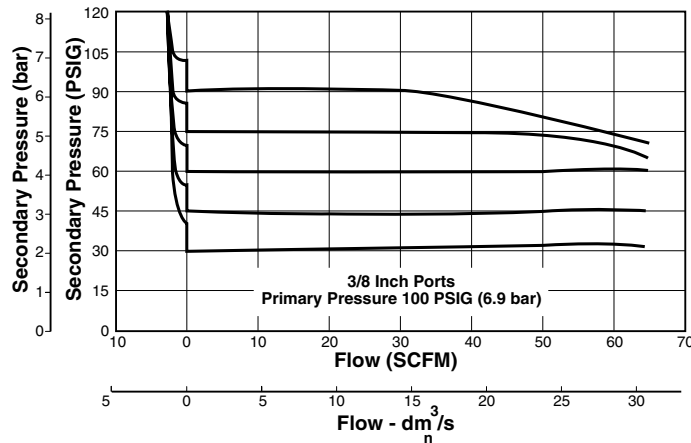
NOTE: BOLD OPTIONS ARE STANDARD.

Technical Information

Relief And Flow Characteristics  
10R115PB



Relief And Flow Characteristics  
10R215PB



10R Pilot Regulator Kits & Accessories

Gauges – 1-1/2" Dial Face

- 30 PSIG (0 to 200 kPa) ..... RRP-96-663
- 60 PSIG (0 to 400 kPa) ..... RRP-96-664
- 160 PSIG (0 to 1100 kPa) ..... RRP-96-665
- 300 PSIG (0 to 2000 kPa) ..... RRP-96-666

2" Dial Face

- 60 PSIG (0 to 400 kPa) ..... P781641
- 160 PSIG (0 to 1100 kPa) ..... P781642
- 300 PSIG (0 to 2000 kPa) ..... P781643

- Mounting Bracket Kit ..... PS963P
- Non-Relieving Service Kit ..... PS947P
- Panel Mount Nut – Metal ..... PS964P
- Pilot Conversion Kit ..... PS945P
- Relieving Service Kit ..... PS949P

Specifications

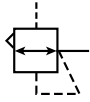
- Gauge Ports ..... 1/4"
- Port Threads ..... 1/4", 3/8"
- Pressure & Temperature Rating – 0 to 250 PSIG (0 to 17.2 bar)  
32°F to 175°F (0°C to 80°C)
- Weight ..... .90 lb. (.41 kg)

Materials of Construction

- Body ..... Zinc
- Piston & Poppet ..... Plastic
- Seals ..... Nitrile
- Spring – Poppet ..... Steel

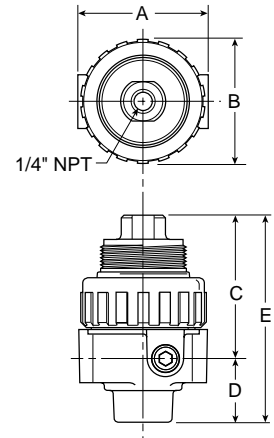


## 11R Pilot Controlled Regulator – Compact



### Features

- Balanced poppet provides quick response and accurate pressure regulation.
- Pilot controlled regulators can be mounted “out of reach” with pilot regulator installed in a convenient location.
- Solid control piston for extended life.
- Two full flow 1/4" gauge ports can be used as additional outlets.
- Pilot port 1/4 Inch.
- High Flow: 1/4" – 85 SCFM<sup>§</sup>  
 3/8" – 95 SCFM<sup>§</sup>  
 1/2" – 95 SCFM<sup>§</sup>



Port Size	NPT	BSP
Without Gauge		
1/4"	<b>11R115PC</b>	11R115PC1
3/8"	<b>11R215PC</b>	11R215PC1
1/2"	<b>11R315PC</b>	11R315PC1
With 160 PSI Gauge		
1/4"	<b>11R121PC</b>	11R121PC1
3/8"	<b>11R221PC</b>	11R221PC1
1/2"	<b>11R321PC</b>	11R321PC1

11R Regulator Dimensions		
<b>A</b> 2.81 71mm	<b>B</b> 2.74 70mm	<b>C</b> 3.05 77mm
<b>D</b> 1.39 35mm	<b>E</b> 4.44 113mm	

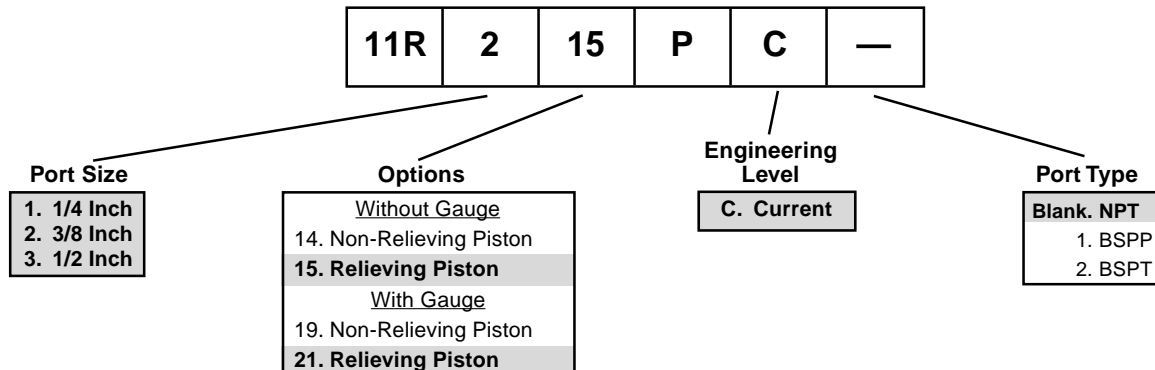
**⚠ WARNING**  
**Do not connect regulator to bottled gas.**  
**Do not exceed maximum primary pressure rating.**  
**Product rupture can cause serious injury.**

Standard part numbers shown, for other models refer to ordering information below.

NOTE: 2.00 Dia. (50,8mm) hole required for panel mounting.

§ SCFM = Standard cubic feet per minute at 150 PSIG inlet, 90 PSIG no flow secondary setting and 10 PSIG pressure drop.

### Ordering Information

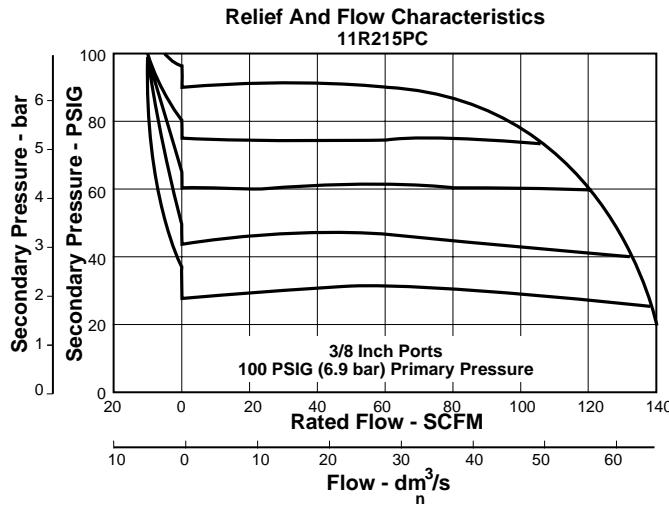
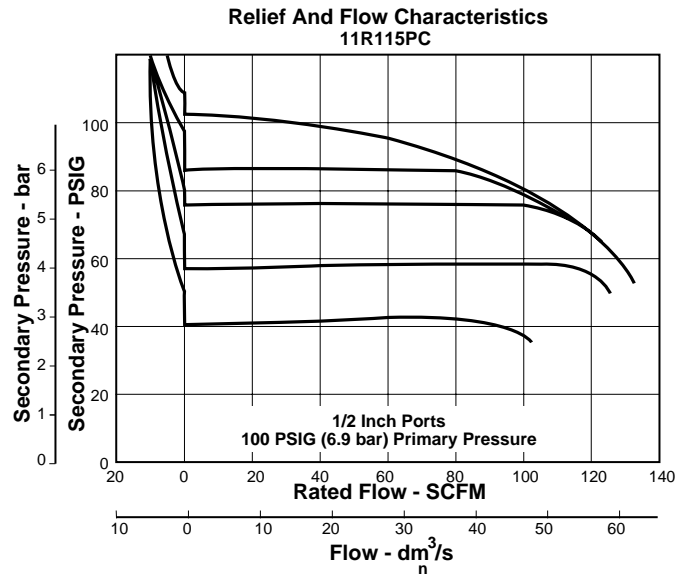


### CAUTION:

**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.

NOTE: Shaded items are standard.

**Technical Information**



**11R Pilot Regulator Kits & Accessories**

<b>Body Service Kits – Seat Insert Kit</b> .....	PS713P
<b>Gauges – 60 PSIG (0 to 400 kPa)</b> .....	P781641
160 PSIG (0 to 1100 kPa) .....	P781642
300 PSIG (0 to 2000 kPa) .....	P781643
<b>Mounting Bracket Kit (Includes Panel Mount Nut)</b> .....	PS707P
<b>Panel Mount Nut – Plastic</b> .....	P04082
Metal .....	P04079
<b>Pilot Conversion Kit –Relieving</b> .....	PS745
<b>Service Kits – Non-Relieving</b> .....	PS747P
Relieving .....	PS749P

**Specifications**

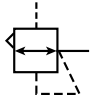
<b>Gauge Ports</b> .....	Two Ports 1/4"
(Can be used as additional Full Flow 1/4 Inch Outlet Ports)	
<b>Port Threads</b> .....	1/4", 3/8", 1/2"
<b>Pressure &amp; Temperature Rating</b> –	0 to 250 PSIG (0 to 1725 kPa)
	32°F to 175°F (0°C to 80°C)
<b>Weight</b> .....	1.3 lb. (.58 kg.)

**Materials of Construction**

<b>Body &amp; Pilot Cap</b> .....	Zinc
<b>Piston, Valve Poppet, &amp; Collar</b> .....	Plastic
<b>Seals</b> .....	Nitrile
<b>Springs</b> .....	Steel

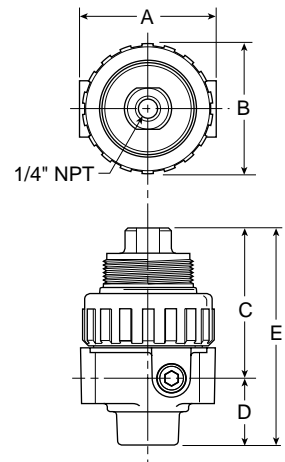


## 12R Pilot Controlled Regulator – Standard



### Features

- Balanced poppet provides quick response and accurate pressure regulation.
- Pilot controlled regulators can be mounted “out of reach” with pilot regulator installed in a convenient location.
- Solid control piston for extended life.
- Two full flow 1/4" gauge ports can be used as additional outlets.
- Pilot port 1/4 Inch.
- High Flow: 3/8" – 120 SCFM §  
 1/2" – 140 SCFM §  
 3/4" – 140 SCFM §



Port Size	NPT	BSPP
Without Gauge		
3/8"	<b>12R215PB</b>	12R215PB1
1/2"	<b>12R315PB</b>	12R315PB1
3/4"	<b>12R415PB</b>	12R415PB1
With 160 PSI Gauge		
3/8"	<b>12R221PB</b>	12R221PB1
1/2"	<b>12R321PB</b>	12R321PB1
3/4"	<b>12R421PB</b>	12R421PB1

12R Regulator Dimensions		
A	B	C
3.24 82mm	2.74 70mm	3.15 80mm
D	E	
1.61 41mm	4.76 121mm	

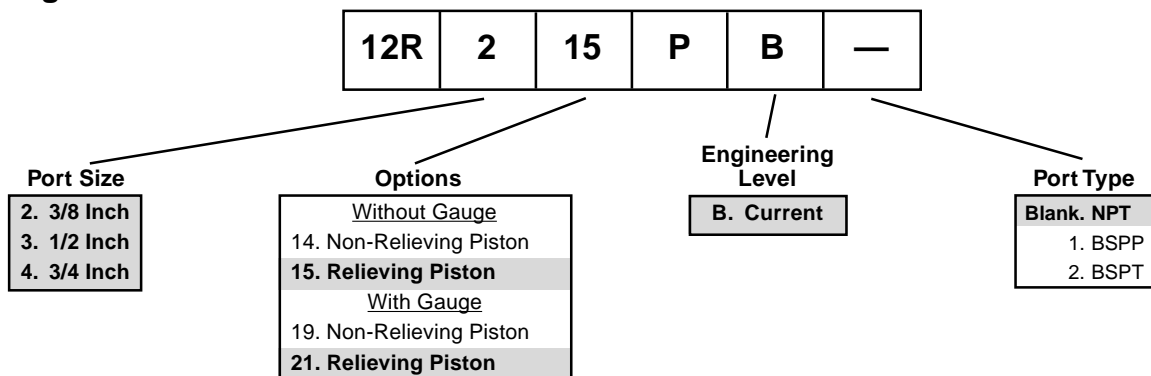
**⚠ WARNING**  
**Do not connect regulator to bottled gas.**  
**Do not exceed maximum primary pressure rating.**  
**Product rupture can cause serious injury.**

Standard part numbers shown, for other models refer to ordering information below.

NOTE: 2.00 Dia. (50,8mm) hole required for panel mounting.

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

### Ordering Information



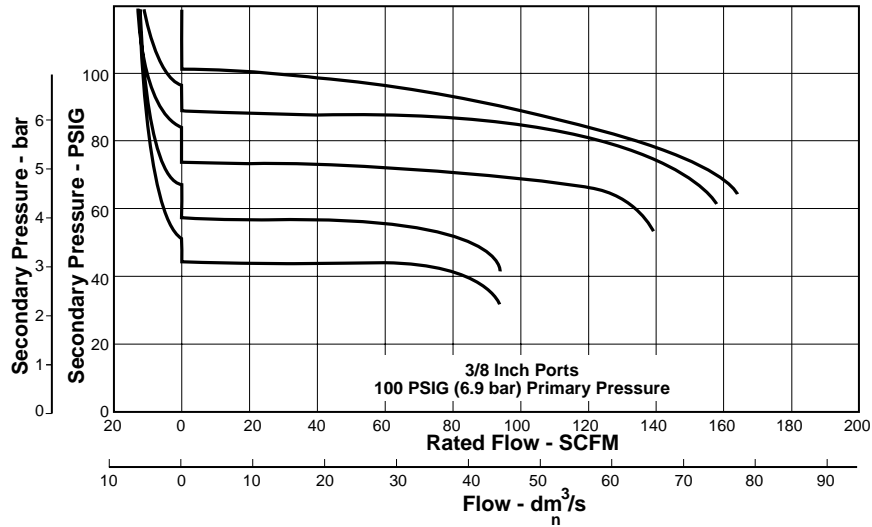
### CAUTION:

**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.

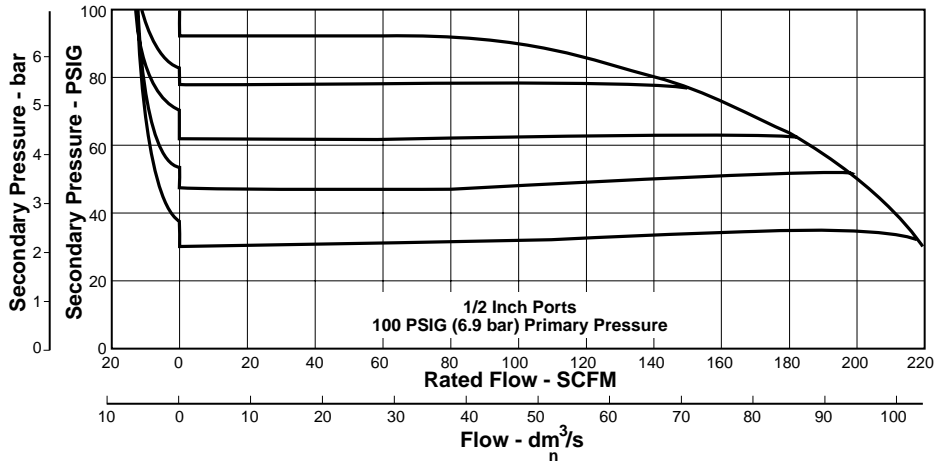
NOTE: Shaded items are standard.

**Technical Information**

**Relief And Flow Characteristics  
 12R215PB**



**Relief And Flow Characteristics  
 12R315PB**



**12R Pilot Regulator Kits & Accessories**

<b>Body Service Kits – Seat Insert Kit</b> .....	PS813P
<b>Gauges – 60 PSIG (0 to 400 kPa)</b> .....	P781641
160 PSIG (0 to 1100 kPa) .....	P781642
300 PSIG (0 to 2000 kPa) .....	P781643
<b>Mounting Bracket Kit (Includes Panel Mount Nut)</b> .....	PS807P
<b>Panel Mount Nut – Plastic</b> .....	P04082
Metal .....	P04079
<b>Pilot Conversion Kit – Relieving</b> .....	PS745P
<b>Service Kits – Non-Relieving</b> .....	PS847P
Relieving .....	PS849P

**Specifications**

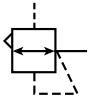
<b>Gauge Ports</b> .....	Two Ports 1/4"
(Can be used as additional Full Flow 1/4 Inch Outlet Ports)	
<b>Port Threads</b> .....	3/8", 1/2", 3/4"
<b>Pressure &amp; Temperature Rating</b> – 0 to 250 PSIG (0 to 1725 kPa)	32°F to 175°F (0°C to 80°C)
<b>Weight</b> .....	2.0 lb. (.91 kg)

**Materials of Construction**

<b>Body &amp; Pilot Cap</b> .....	Zinc
<b>Piston, Valve Poppet, &amp; Collar</b> .....	Plastic
<b>Seals</b> .....	Nitrile
<b>Springs</b> .....	Steel

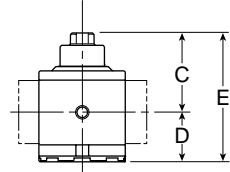
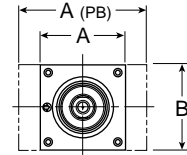


## P3NR Pilot Controlled Regulator - Hi-Flow



### Features

- Port blocks (PB) available to provide 1-1/2" port extension to 1" ported bodies.
- Self relieving feature plus balanced poppet provides quick response and accurate pressure regulation.
- Solid control piston for extended life.
- High Flow: 3/4" – 300 SCFM §  
 1" – 300 SCFM §  
 1-1/2" – 350 SCFM §



Port Size	NPT	BSP
Without Gauge		
3/4"	<b>P3NRA96BPP</b>	P3NRA16BPP
1"	<b>P3NRA98BPP</b>	P3NRA18BPP
1-1/2"	<b>P3NRA9PBPP</b>	P3NRA1PBPP
With 160 PSI Gauge		
3/4"	<b>P3NRA96BPG</b>	P3NRA16BPG
1"	<b>P3NRA98BPG</b>	P3NRA18BPG
1-1/2"	<b>P3NRA9PBPG</b>	P3NRA1PBPG

P3NR Regulator Dimensions		
<b>A</b> 3.62 92mm	<b>A (PB)</b> 5.59 142mm	<b>B</b> 3.62 92mm
<b>C</b> 3.38 86mm	<b>D</b> 2.08 53mm	<b>E</b> 5.46 139mm

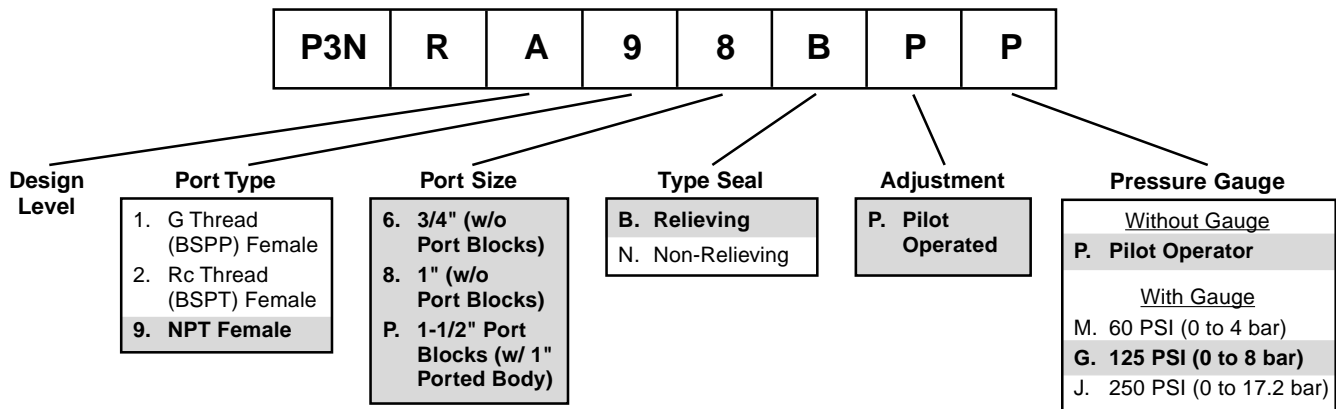
**⚠ WARNING**  
**Do not connect regulator to bottled gas.**  
**Do not exceed maximum primary pressure rating.**  
**Product rupture can cause serious injury.**

Standard part numbers shown, for other models refer to ordering information below.

# 1" Port Body with 1-1/2" Port Block.

§ SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG setting and 10 PSIG pressure drop.

### Ordering Information



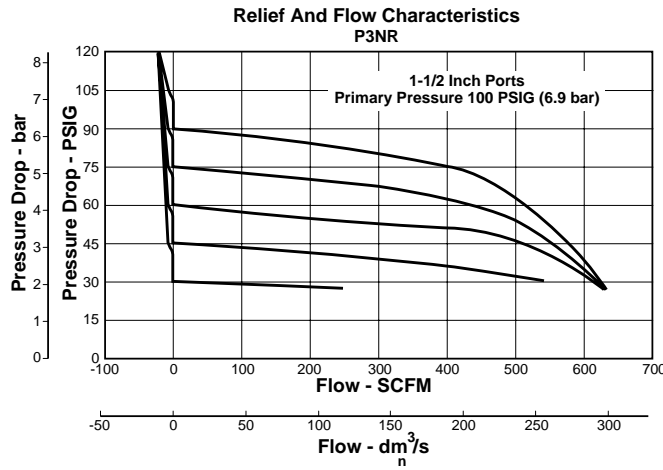
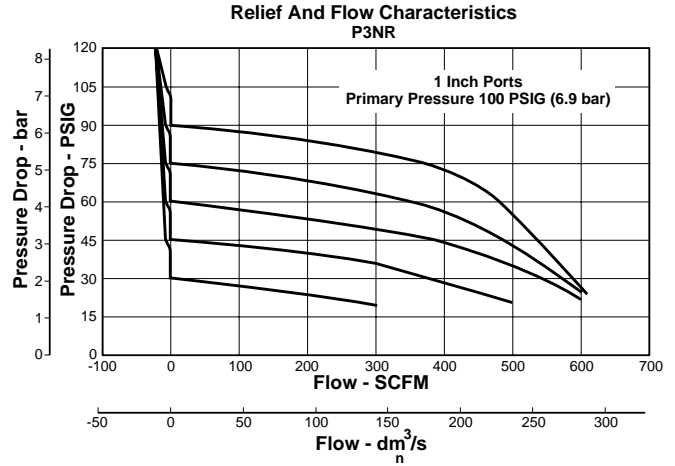
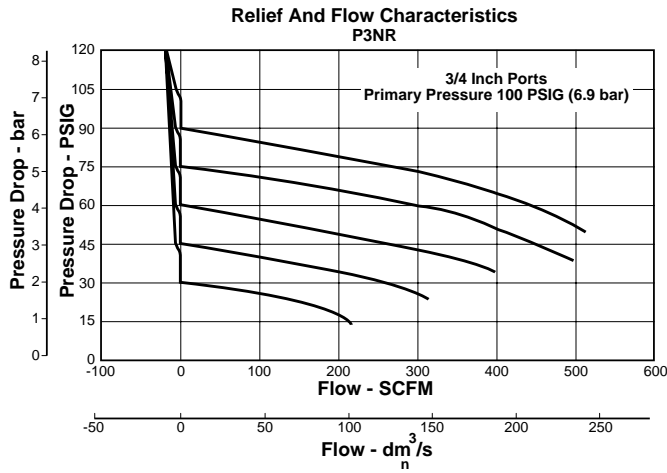
### CAUTION:

**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.

NOTE: Shaded items are standard.



**Technical Information**



**P3NR Pilot Regulator Kits & Accessories**

- Gauges – 60 PSIG (0 to 400 kPa) ..... P781641
- 160 PSIG (0 to 1100 kPa) ..... P781642
- 300 PSIG (0 to 2000 kPa) ..... P781643
- Mounting Bracket Kit ..... P3NKA00MW
- Service Kit – Relieving ..... P3NKA00RR
- Non-Relieving ..... P3NKA00RN

**Specifications**

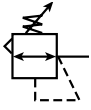
- Gauge Ports ..... Two Ports 1/4"
- Port Threads ..... 3/4", 1", 1-1/2" #
- Primary Pressure Rating –  
     Maximum Primary Pressure ..... 250 PSIG (17.2 bar) Max.
- Temperature Rating ..... 32°F to 175°F (0°C to 80°C)
- Weight –  
     3/4" ..... 3.3 lb. (1.5 kg)
- 1" ..... 3.3 lb. (1.5 kg)
- 1-1/2" # ..... 4.4 lb. (2.0 kg)

**Materials of Construction**

- Adjusting Stem ..... Steel
- Body ..... Aluminum
- Bonnet ..... Aluminum
- Piston ..... Plastic
- Poppet Assembly ..... Brass
- Seals ..... Nitrile
- Springs – Poppet ..... Steel
- # 1" Port Body with 1-1/2" Port Block.

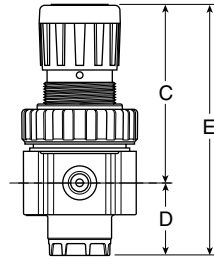
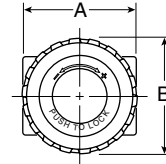


## 27R Regulator – Precision



### Features

- Fine adjustment sensitivity.
- Good repeatability and minimal pressure drop.
- High flow capacity.
- Two 1/8" 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.



Pressure	1/4" NPT	1/4" BSPP
15 PSIG	<b>27R112AD</b>	27R112AD1
30 PSIG	<b>27R110AD</b>	27R110AD1
60 PSIG	<b>27R114AD</b>	27R114AD1
125 PSIG	<b>27R113AD</b>	27R113AD1

27R Regulator Dimensions		
A	B	C
2.00 51mm	2.06 52mm	3.16 80mm
D	E	
1.28 32mm	4.44 113mm	

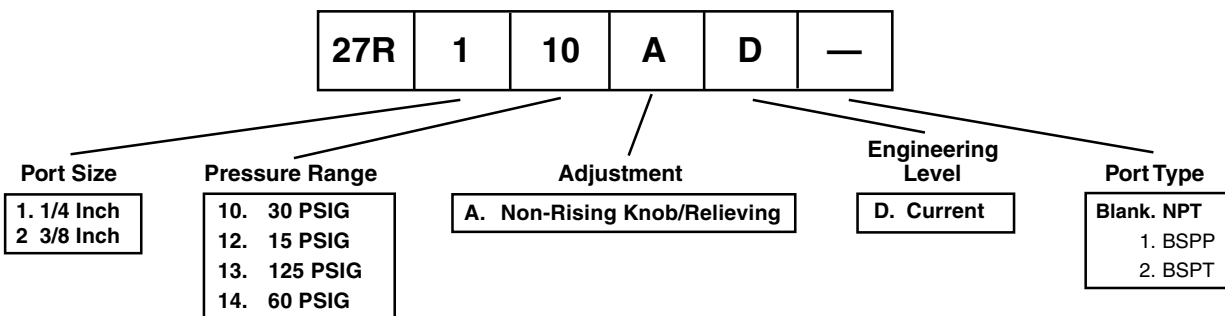
Standard part numbers shown, for other models refer to ordering information below.

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.

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

## Ordering Information



### CAUTION:

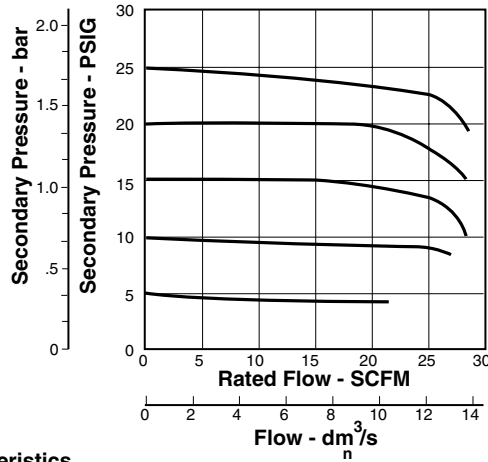
**REGULATOR PRESSURE ADJUSTMENT** – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

NOTE: BOLD OPTIONS ARE STANDARD.

Technical Information

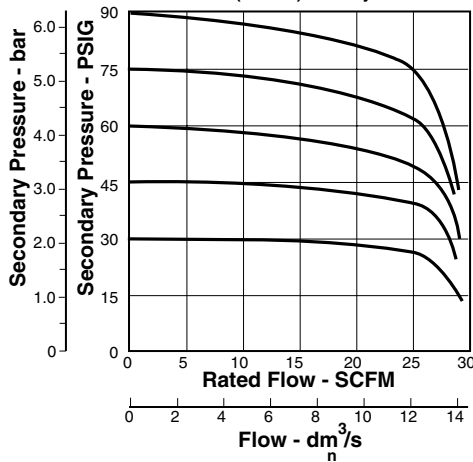
Flow Characteristics

27R110AD  
1/4 Inch Ports  
100 PSIG (6.9 bar) Primary Pressure



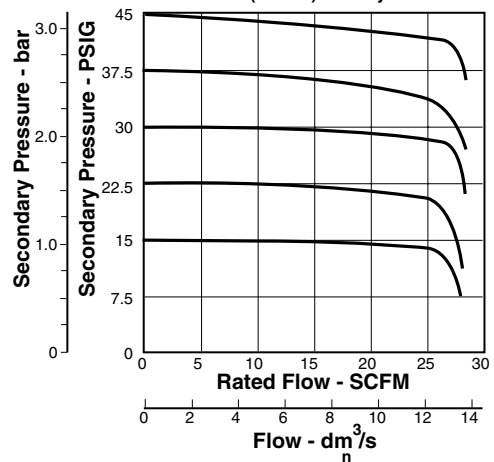
Flow Characteristics

27R113AD  
1/4 Inch Ports  
100 PSIG (6.9 bar) Primary Pressure



Flow Characteristics

27R114AD  
1/4 Inch Ports  
100 PSIG (6.9 bar) Primary Pressure



27R Regulator Kits & Accessories

Bonnet Assembly Kit .....	PS910P
Control Knob .....	P0442001
Gauges – 1-1/2" Dial Face	
30 PSIG (0 to 200 kPa) .....	RRP-96-663
60 PSIG (0 to 400 kPa) .....	RRP-96-664
160 PSIG (0 to 1100 kPa) .....	RRP-96-665
300 PSIG (0 to 2000 kPa) .....	RRP-96-666
2" Dial Face	
60 PSIG (0 to 400 kPa) .....	P781641
160 PSIG (0 to 1100 kPa) .....	P781642
300 PSIG (0 to 2000 kPa) .....	P781643
Mounting Bracket Kit .....	PS963P
Panel Mount Nut – Metal .....	PS964P
Service Kit .....	PS907P
Springs – 1-30 PSIG Range .....	P04427
1-15 PSIG Range .....	P04428
0-60 PSIG Range .....	P04426
2-125 PSIG Range .....	P04425

Specifications

Bleed Rate .....	2.0 SCFH
Gauge Ports .....	Two Ports 1/4"
Effect of Supply Pressure Variation –	
0.5 PSIG (3.5 kPa) for 25 PSIG (173 kPa) change in P <sub>1</sub>	

Relief Capacity –

0.5 SCFM (0.24  $dm^3/s$ ) @ 5 PSIG (35 kPa) increase in P<sub>2</sub>

Flow Capacity –

28 SCFM (13.2  $dm^3/s$ ) @ 100 PSIG (690 kPa) P<sub>1</sub>

and 20 PSIG (138 kPa) P<sub>2</sub> Port Threads 1/4", 3/8"

Maximum Inlet Pressure .....

Relief Flow .....

Repeatability .....

Response – .....

The valve will open to full flow and fill a volume of 100 in<sup>3</sup>

Temperature Rating .....

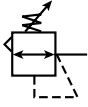
Weight .....

Materials of Construction

Poppet .....	Brass
Bonnet .....	Plastic
Body .....	Zinc
Collar, Knob .....	Plastic
Diaphragm .....	Nitrile
Bottom Cap .....	Plastic
Seals .....	Nitrile
Springs – Poppet & Control .....	Steel

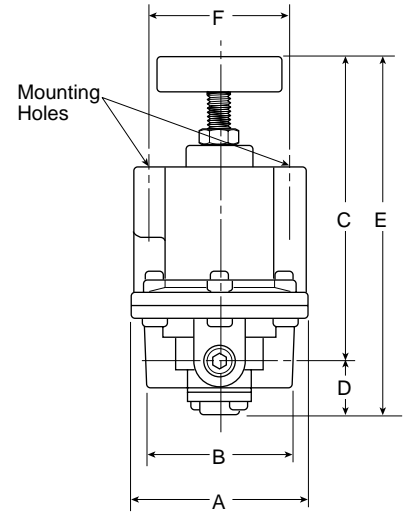


## 3550 Regulator – Compact Precision



### 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 1/8" of water.
- High flow capacity; flows of 40 SCFM attainable with minimal drop.
- Sensitive relief. Downstream pressure buildup, down to 0.01 PSIG above the set pressure, is automatically vented through an integral relief valve.
- Superior flow response, quick reaction to high flow demands. Desired downstream pressure levels maintained through the use of a venturi type aspirator tube.



3550 Regulator Dimensions		
A	B	C
3.00	2.55	5.56
76mm	65mm	141mm
D	E	F
.94	6.50	2.25
29mm	165mm	57mm

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

### Ordering Information

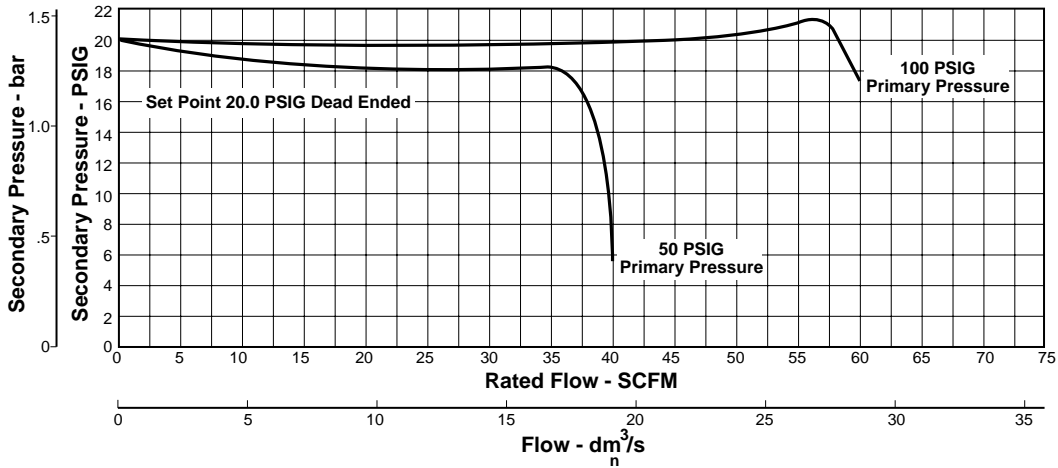
Port Size	1/2 to 30 PSIG Relieving	1/2 to 30 PSIG Non-Relieving	1 to 60 PSIG Relieving	1 to 60 PSIG Non-Relieving	2 to 150 PSIG Relieving	2 to 150 PSIG Non-Relieving
1/4 Inch	03550 1020	03550 3020	03550 1030	03550 3030	03550 1040	03550 3040

### 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.

NOTE: Shaded items are standard.

**Technical Information**



**3550 Regulator Kits & Accessories**

- Mounting Bracket Kit ..... 035500400
- Service Kit – Non-Relieving ..... 035508009
- Relieving ..... 035508000

**Specifications**

- Bleed Rate ..... 0.02 SCFM
- 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 change
- Exhaust Capacity –  
 5.5 SCFM with downstream pressure 5 PSIG above set pressure.  
 Exhaust commences at 0.01 PSIG above set pressure.
- Flow Capacity –  
 27 SCFM (12.7 dm³/s) @ 100 PSIG (690 kPa) P<sub>1</sub>  
 and 20 PSIG (138 kPa) P<sub>2</sub>
- Operating Temperature Range – -40°F to 200°F (-4°C to 93°C)
- Operating Pressure Range –

		PSIG	kPa
Primary –	Maximum	500	3450
Secondary –			
30 PSIG Spring	Minimum	0.5	3.4
	Maximum	30	207
60 PSIG Spring	Minimum	1	6.9
	Maximum	60	414
150 PSIG Spring	Minimum	2	14
	Maximum	150	1035

- Port Threads ..... 1/4"
- Pressure Rating ..... 0 to 250 PSIG (0 to 1725 kPa)
- Relief Flow ..... 1.0 SCFM
- Repeatability ..... ±0.02 PSIG (±0.014 bar)
- Response ..... 250 ms  
 The valve will open to full flow and fill a volume of 1250 cm³
- Sensitivity ..... 0.125" Water Column
- Weight ..... 1.6 lb. (.73 kg)

**Materials of Construction**

- Adjusting Stem & Spring ..... Steel
- Biased Spring ..... Stainless Steel
- Body, Bonnet ..... Aluminum
- Control Knob ..... Plastic
- Diaphragm ..... Nitrile and Dacron, Convoluted
- Seals ..... Nitrile
- Valve Poppet ..... Brass
- Valve Poppet Seat ..... Fluorocarbon

