



# Air Preparation Units

Filters, Regulators, and Lubricators

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climate control  
electromechanical  
**filtration**  
fluid & gas handling  
hydraulics  
pneumatics  
process control  
sealing & shielding



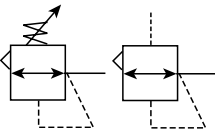
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## Regulators

- Pipe Sizes 1/8 thru 1½ Inch
- Flows to 300 SCFM
- Pressures to 250 PSIG



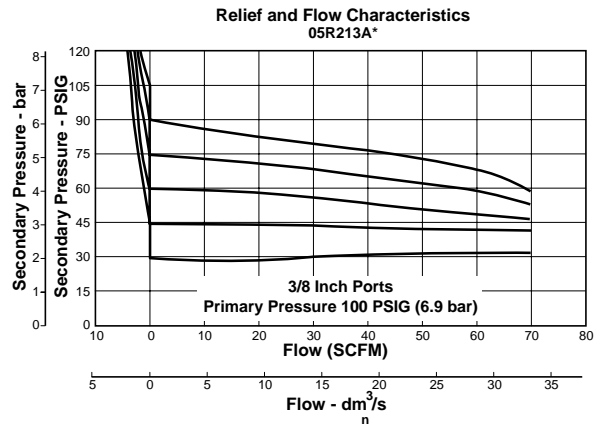
Air regulators are designed to provide quick response and accurate pressure regulation for the most demanding industrial applications.

- Miniature 14R Series, 1/8 and 1/4 Inch
- Miniature FR364 Stainless Series, 1/4 Inch
- Economy 05R Series, 1/4 and 3/8 Inch
- Compact 06R Series, 1/4, 3/8 and 1/2 Inch
- Standard FR11 Stainless Series, 1/2 Inch
- Standard 07R Series, 3/8, 1/2 and 3/4 Inch
- Hi-Flow P3NR Series, 3/4, 1 and 1½ Inch
- Pilot Controlled 11R, 12R Series, 1/4 thru 3/4 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.

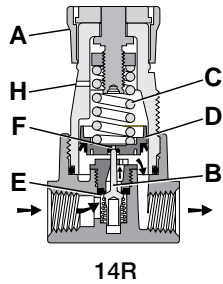
### ⚠ WARNING

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

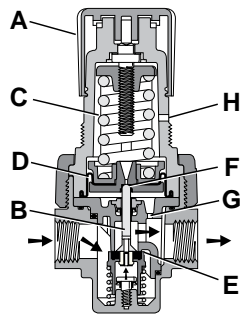
## CAUTION:

**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.

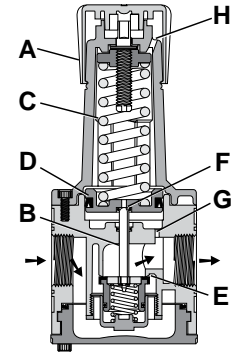
For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.



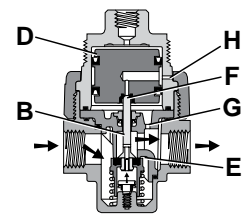
14R



05R, 06R, 07R



P3NR



11R, 12R

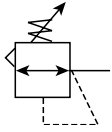
With the adjusting knob (A) turned fully counterclockwise (no spring load), and pressure supplied to the regulator inlet port, the valve poppet assembly (B) is closed. Turning the adjusting knob clockwise applies a load to control spring (C). This load causes the piston / diaphragm (D) and the valve 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.

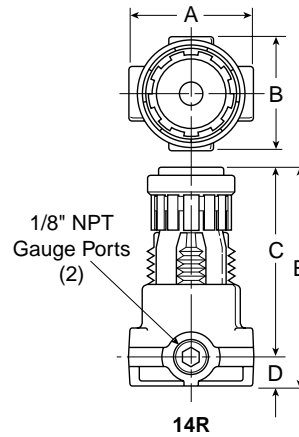
Should downstream pressure exceed the desired regulated pressure, the excess pressure will cause the piston / diaphragm (D) to move upward against control spring (C), open vent hole (F), and vent the excess pressure to atmosphere through the hole in the bonnet (H). (This occurs in the relieving type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

## 14R Regulators – Miniature



### Features

- Unbalanced poppet standard.
- Solid control piston with lip seal for extended life.
- Non-rising adjusting knob.
- Compact, 2.88 inch (73,2mm) high by 1.65 inch (42mm) wide.
- Easily serviced.
- High Flow: 1/8" – 13 SCFM<sup>§</sup>  
 1/4" – 15 SCFM<sup>§</sup>



Port Size	NPT
Without Gauge	
1/8"	<b>14R013F*</b>
1/4"	<b>14R113F*</b>

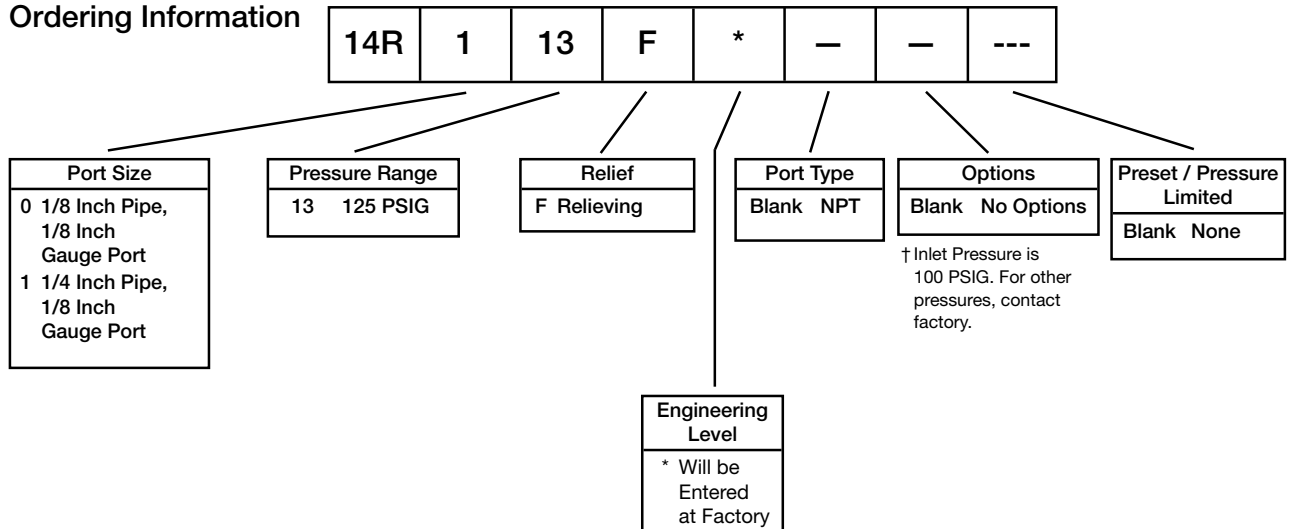
14R Regulator Dimensions					
14R	A	B	C	D	E
	1.65 (42)	1.56 (40)	2.50 (63,5)	0.38 (10)	2.88 (73)

Inches (mm)

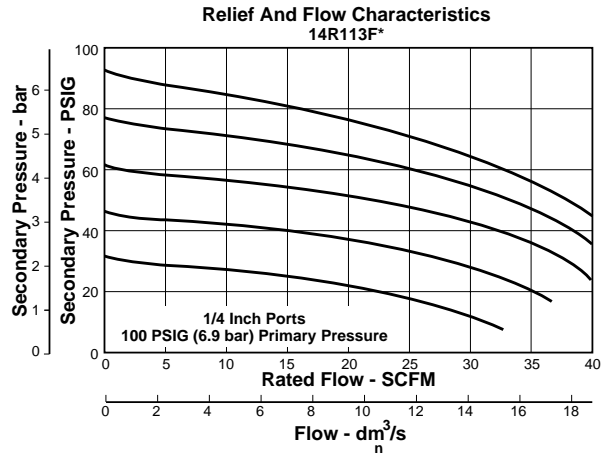
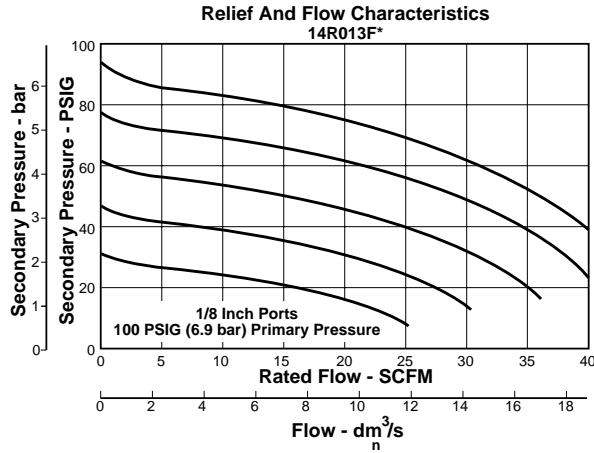
NOTE: 1.218 Dia. (31mm) hole required for panel mounting.

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

### Ordering Information



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.

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

**14R Regulator Kits & Accessories**

- Body Service Kit – Unbalanced .....PS424BP
- Bonnet Assembly Kit ..... L01369
- Gauges – 30 PSIG, 1/8" NPT (0 to 2.1 bar).....K4515N18030
- 60 PSIG, 1/8" NPT (0 to 4.1 bar).....K4515N18060
- 160 PSIG, 1/8" NPT (0 to 11.0 bar).....K4515N18160
- Mounting Bracket Kit (Includes Panel Mount Nut) ..... PS417BP
- Panel Mount Nuts – Plastic .....P78652
- Metal ..... P01531
- Service Kits – Relieving..... PS423P
- Springs – 2-125 PSIG Range (Gold)..... P01173

**Specifications**

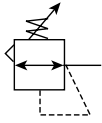
- Gauge Ports (2) ..... 1/8 Inch  
 (Can be used for Full Flow)
- Port Threads ..... 1/8, 1/4 Inch
- Pressure & Temperature Ratings – 0 to 300 PSIG (0 to 20.7 bar)  
 32°F to 125°F (0°C to 52°C)
- Low Temperature ..... -4°F to 125°F (-20°C to 52°C)
- Secondary Pressure Range–  
 Standard Pressure..... 2 to 125 PSIG (0 to 8.6 bar)
- Weight – 14R..... 0.3 lb. (0.14 kg)

**Materials of Construction**

- Adjusting Nut .....Brass
- Adjusting Stem & Spring .....Steel
- Body ..... Zinc
- Bonnet, Seat, Piston & Valve Poppet..... Plastic
- Seals .....Nitrile

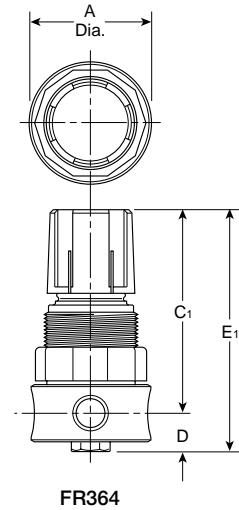


## FR364 Regulator – Miniature



### Features

- Stainless steel construction handles most corrosive environments.
- Large diaphragm to valve area ratio for precise regulation and high flow capacity.
- Meets NACE specifications MR-01-75/ISO 15156.
- High Flow: 1/4" – 12 SCFM<sup>§</sup>



Series	Adjustment Type	Port Size	NPT
FR364	Knob	1/4"	FR364-02CSS

<sup>§</sup> SCFM = Standard cubic feet per minute at 100 PSIG inlet, 75 PSIG no flow secondary setting and 15 PSIG pressure drop.

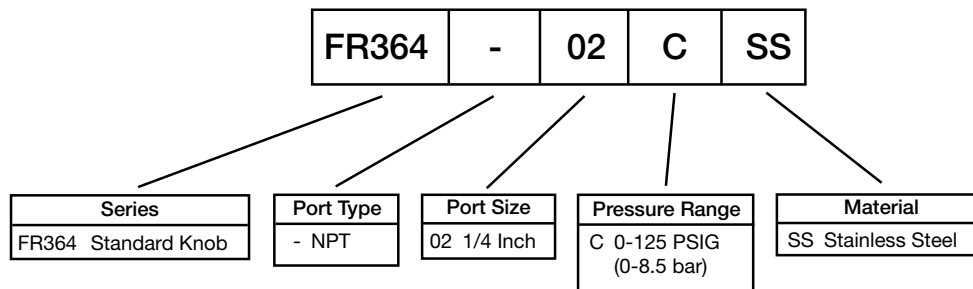
FR364 Regulator Dimensions	
A	C <sub>1</sub>
1.56 (40)	2.56 (65)
D	E <sub>1</sub>
0.50 (13)	3.06 (78)

inches (mm)

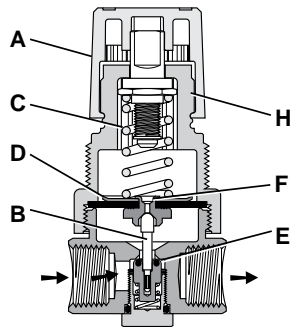
NOTE: 1.25 Dia.  
(32mm) hole  
required for panel  
mounting.

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

### Ordering Information



Operation



FR364

With the adjusting knob (A) turned fully counter-clockwise (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 diaphragm (D) and the valve poppet assembly (B) to move downward allowing flow across the seat area (E) created between the poppet and the seat. Pressure in the downstream line is sensed below the diaphragm (D) and offsets the load of spring (C). As downstream pressure rises, poppet assembly (B) and diaphragm (D) move upward until the area (E) is closed and the load of the spring (C) and pressure under 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 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).

Should downstream pressure exceed the desired regulated pressure, the excess pressure will cause the 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.)

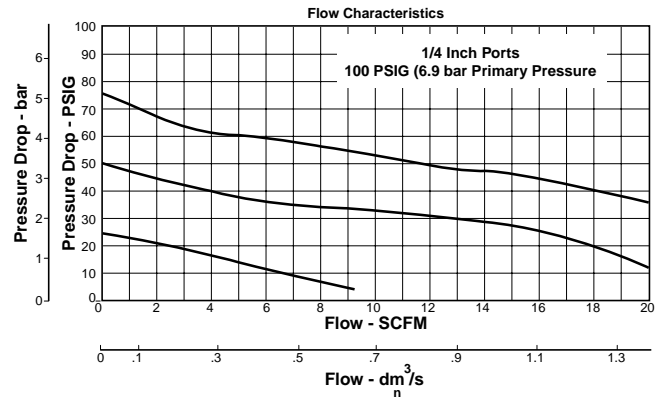
Technical Information

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.



FR364 Regulator Kits & Accessories

- Bonnet Kit (Knob Included) .....CKR364YSS
- Gauge –
  - 160 PSIG (0 to 1100 kPa) ..... K4515N14160SS
- Panel Mount Bracket (Stainless) ..... 161X57-SS
- Panel Mount Nut –
  - Stainless ..... R05X51SS
  - Plastic..... R05X51-P
- Service Kit –
  - Relieving .....RKR364YSS
- Springs –
  - 0-125 PSIG Range .....SPR-377-1-SS

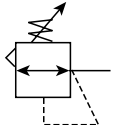
Specifications

- Gauge Port .....1/4 Inch
- Operation ..... Fluorocarbon Diaphragm
- Port Threads .....1/4 Inch
- Pressure & Temperature Ratings – .....300 PSIG Max (20.7 bar)  
40°F to 150°F (4°C to 66°C)
- Weight .....0.5 lb. (0.23 kg)

Materials of Construction

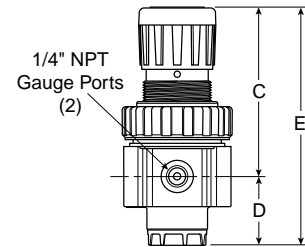
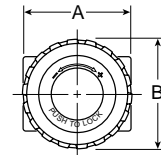
- Adjustment Mechanism / Springs ..... 316 Stainless Steel
- Adjusting Knob ..... Polypropylene
- Body ..... 316 Stainless Steel
- Bonnet ..... Acetal
- Bottom Plug ..... 316 Stainless Steel
- Poppet ..... 316 Stainless Steel
- Seals ..... Fluorocarbon

## 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
Without Gauge	
1/4"	05R113A*
3/8"	05R213A*
With 160 PSI Gauge	
1/4"	05R118A*
3/8"	05R218A*

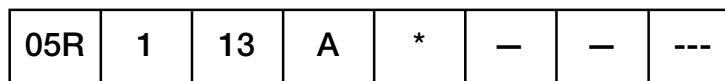
05R Regulator Dimensions		
A	B	C
2.00 (51)	2.06 (52)	3.16 (80)
D	E	
1.28 (32)	4.44 (113)	

Inches (mm)

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



Port Size
1 1/4 Inch
2 3/8 Inch

Pressure Range
Without Gauge
13 125 PSIG
With Gauge**
18 125 PSIG

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

Relief
A Relieving

Engineering Level
* Will be Entered at Factory

Port Type
Blank NPT

Note: 1/4 & 3/8 inch meet ISO 1179-1 Standard.

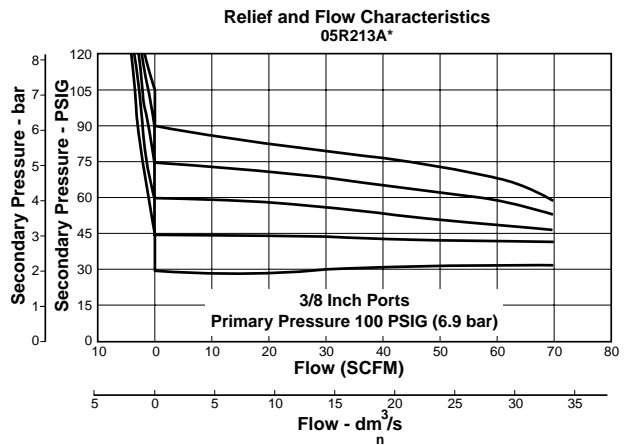
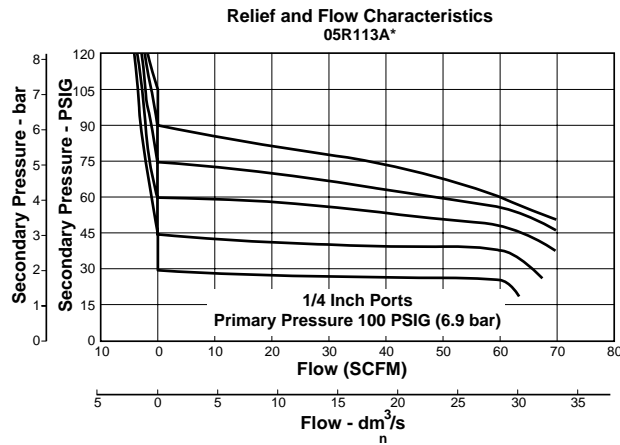
Options
Blank No Options

Inlet Pressure is 100 PSIG. For other pressures, contact factory.

Preset / Pressure Limited
Blank None




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.

 <b>WARNING</b>
<p>Product rupture can cause serious injury. Do not connect regulator to bottled gas. Do not exceed maximum primary pressure rating.</p>

**05R Regulator Kits & Accessories**

- Bonnet Assembly Kit ..... PS915P
- Control Knob ..... P04420
- Gauges – 2" Dial Face
  - 60 PSIG (0 to 4.1 bar)..... K4520N14060
  - 160 PSIG (0 to 11.0 bar).....K4520N14160
- Mounting Bracket Kit ..... PS963P
- Panel Mount Nut – Metal ..... PS964P
- Springs – 2-125 PSIG Range ..... P04425
- Service Kit – Relieving ..... PS908P

**Specifications**

- Gauge Ports (2) ..... 1/4 Inch
- Port Threads ..... 1/4, 3/8 Inch
- Primary Pressure Rating –
  - Maximum Primary Pressure ..... 250 PSIG (17.2 bar) Max.
  - For Secondary Pressure Ranges see above charts.
- Temperature Rating ..... 32°F to 175°F (0°C to 80°C)
  - Low Temperature ..... -4°F to 125°F (-20°C to 52°C)
- Weight ..... 1.1 lb. (0.49 kg)

**Materials of Construction**

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

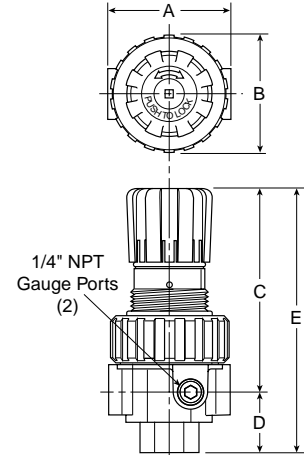


## 06R Regulators – Compact



### 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<sup>§</sup>  
 3/8" – 60 SCFM<sup>§</sup>  
 1/2" – 75 SCFM<sup>§</sup>



Port Size	NPT
Without Gauge	
1/4"	06R113A*
3/8"	06R213A*
1/2"	06R313A*

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

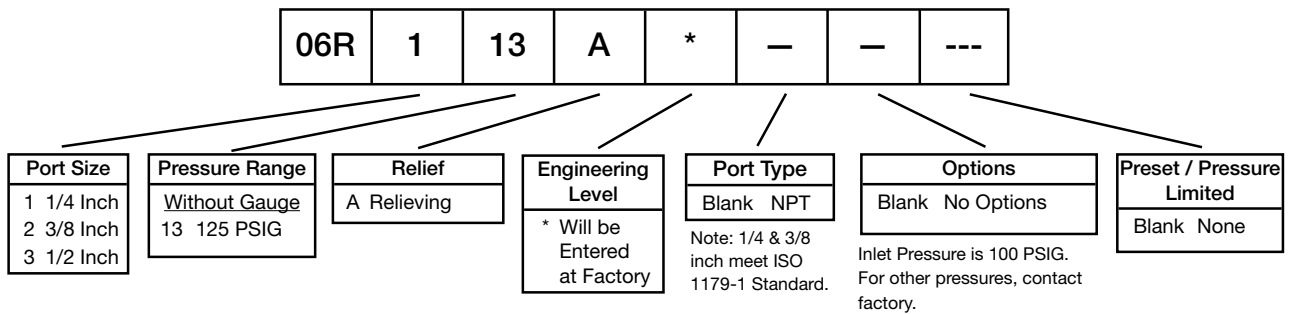
NOTE: 2.00 Dia. (51mm) hole required for panel mounting.

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

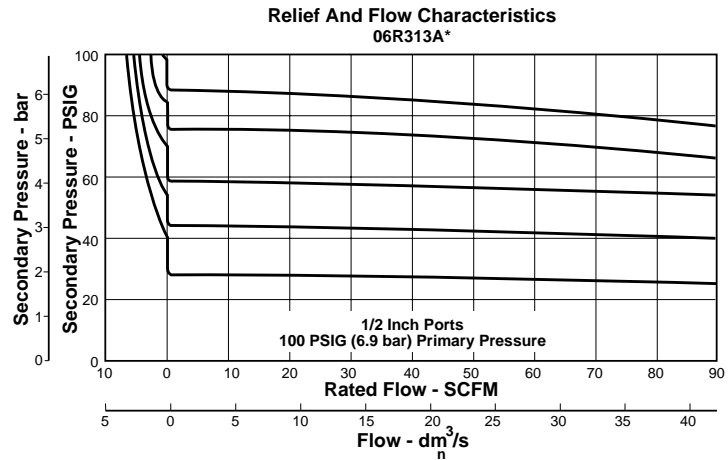
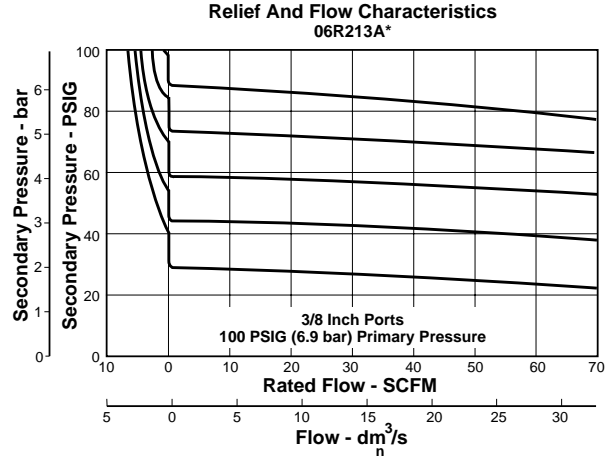
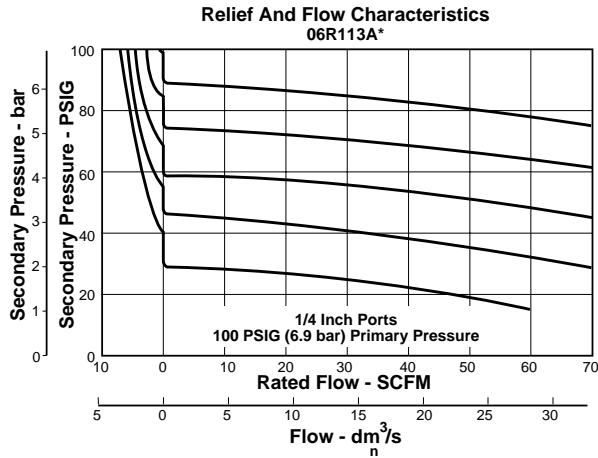
Inches (mm)

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

### Ordering Information



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.

06R Regulator Kits & Accessories

Bonnet Assembly Kit .....	PS715P
Control Knob .....	P04069B
Gauges – 60 PSIG (0 to 4.1 bar) .....	K4520N14060
160 PSIG (0 to 11.0 bar).....	K4520N14160
Mounting Bracket Kit (Includes Panel Mount Nut) .....	PS707P
Panel Mount Nut – Plastic.....	P04082
Metal.....	P04079B
Service Kit – Relieving(Includes Poppet) .....	PS708P
Springs – 2-125 PSIG Range.....	P04063
Tamperproof Kit.....	PS737P

Specifications

Gauge Ports (2) .....	1/4 Inch
(Can be used as additional High Flow 1/4 Inch Outlet Ports)	
Port Threads .....	1/4, 3/8, 1/2 Inch
Primary Pressure Rating –	
Maximum Primary Pressure .....	250 PSIG (17.2 bar)
Secondary Pressure Range –	
Standard Pressure.....	2 to 125 PSIG (0 to 8.6 bar)
Temperature Rating .....	32°F to 175°F (0°C to 80°C)
Weight .....	1.6 lb. (0.7 kg)

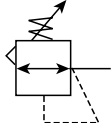
Materials of Construction

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



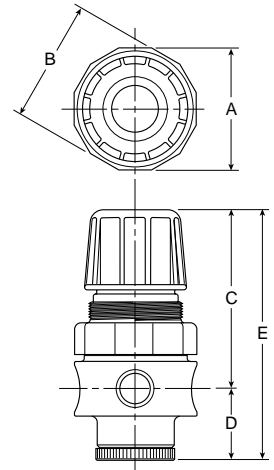
**Standard FR10 Series**

**FR10 Regulator – Standard**



**Features**

- Stainless steel construction handles most corrosive environments.
- Large diaphragm to valve area ratio for precise regulation and high flow capacity.
- Meets NACE specifications MR-01-75/ISO 15156.
- Low temperature version available.
- High Flow: 1/2" – 80 SCFM<sup>§</sup>



Port Size	NPT
1/2"	FR10-04CSS

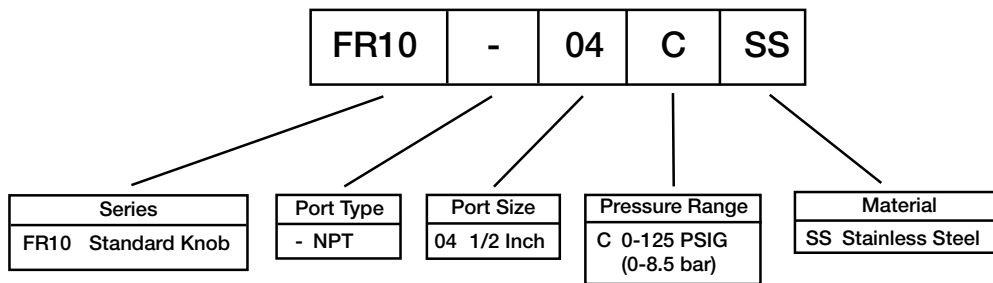
<sup>§</sup> SCFM = Standard cubic feet per minute at 100 PSIG inlet, 75 PSIG no flow secondary setting and 15 PSIG pressure drop.

FR10 Regulator Dimensions		
A	B	C
2.34 (60)	2.43 (62)	3.59 (91)
D	E	
1.38 (35)	4.97 (126)	

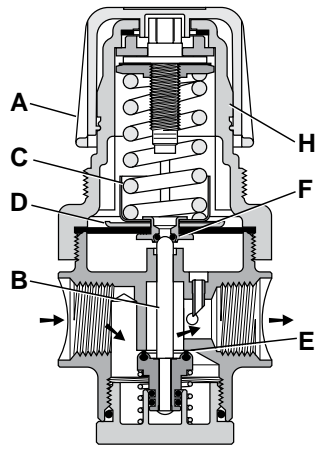
inches (mm)  
NOTE: 1.75 Dia. (44mm)  
hole required for panel mounting.

<b>⚠ WARNING</b>
<p>Product rupture can cause serious injury. Do not connect regulator to bottled gas. Do not exceed maximum primary pressure rating.</p>

**Ordering Information**



Operation



With the adjusting knob (A) turned fully counter-clockwise (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 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 diaphragm (D) and offsets the load of spring (C). As downstream pressure rises, poppet assembly (B) and diaphragm (D) move upward until the area (E) is closed and the load of the spring (C) and pressure under 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 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).

Should downstream pressure exceed the desired regulated pressure, the excess pressure will cause the 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.)

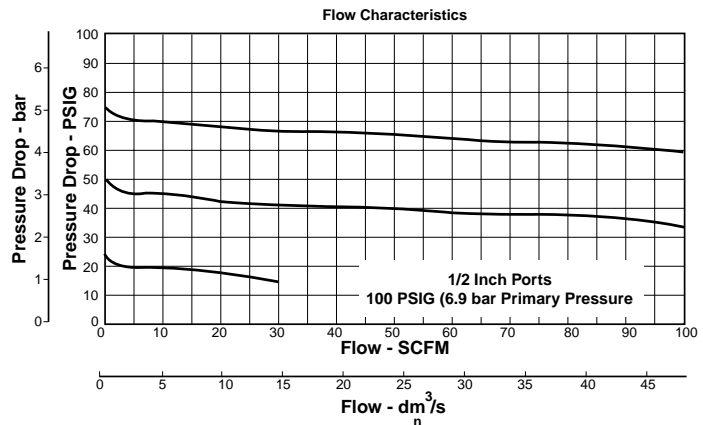
Technical Information

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.



FR10 Regulator Kits & Accessories

- FR10 Bonnet Kit (Knob Included) ..... CKR10YSS
- Gauge –
  - 160 PSIG (0 to 1100 kPa), 2" Face..... K4520N14160SS
- Panel Mount Bracket (Stainless) ..... 161X57-SS
- Panel Mount Nut –
  - Stainless .....R10X51SS
  - Plastic..... R10X51-P
- Service Kit –
  - Relieving..... RKR10YSS
- Springs –
  - 0-125 PSIG Range ..... SPR-389-1-SS

Specifications

- Gauge Port ..... 1/4 Inch
- Operation ..... Fluorocarbon Diaphragm
- Port Threads ..... 1/2 Inch
- Pressure & Temperature Ratings – .....300 PSIG Max (20.7 bar)
  - 0°F to 150°F (-18°C to 66°C)
- Note: Air must be dry enough to avoid ice formation at temperatures below 32°F (2°C).
- Weight ..... 1.79 lb. (0.81 kg)

Materials of Construction

- Adjustment Mechanism / Springs ..... 316 Stainless Steel
- Body ..... 316 Stainless Steel
- Bonnet / Knob ..... Acetal
- Bottom Plug ..... 316 Stainless Steel
- Poppet ..... 316 Stainless Steel
- Seals ..... Fluorocarbon

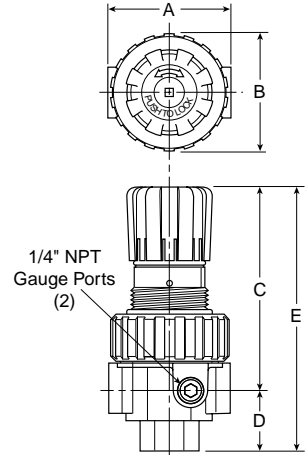


## 07R Regulators – Standard



### 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<sup>§</sup>  
 1/2" – 90 SCFM<sup>§</sup>  
 3/4" – 90 SCFM<sup>§</sup>



Port Size	NPT
Without Gauge	
3/8"	07R213A*
1/2"	07R313A*
3/4"	07R413A*

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

Inches (mm)

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

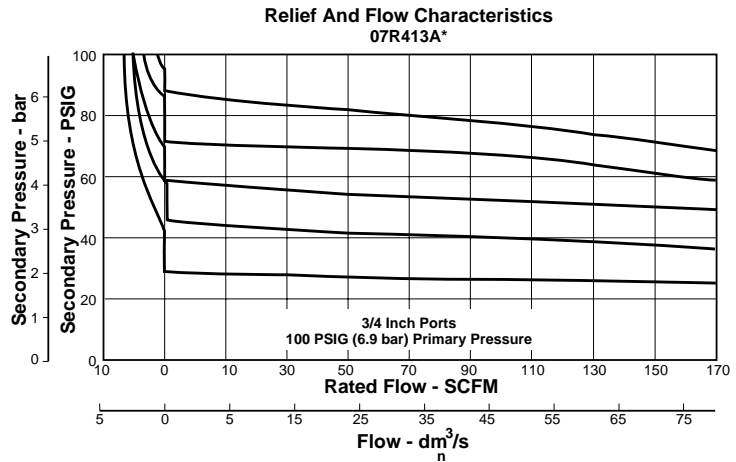
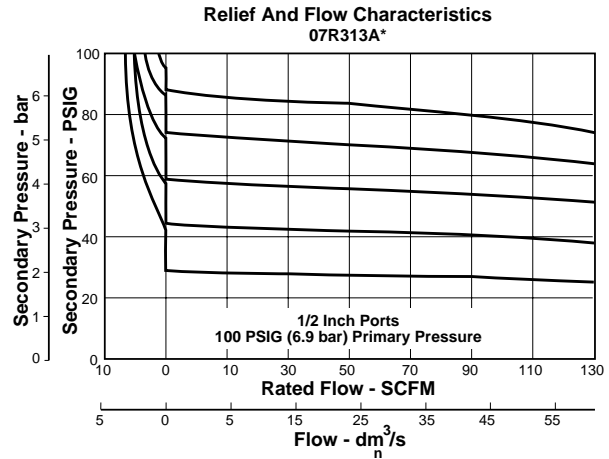
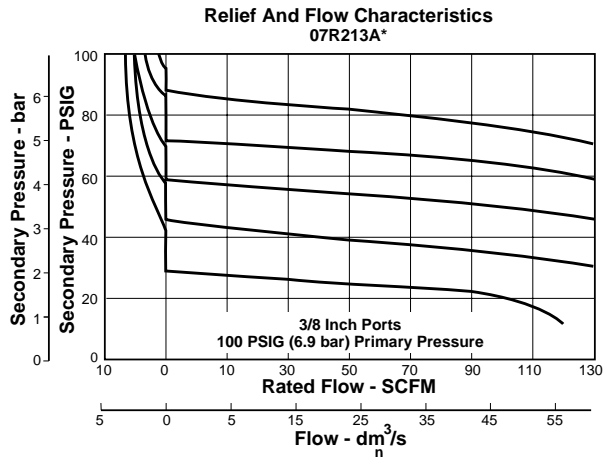
§ SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no flow secondary setting and 10 PSIG pressure drop.

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

### Ordering Information

<b>07R 3 13 A * - - -</b>							
<b>Port Size</b>	<b>Pressure Range</b>	<b>Relief</b>	<b>Engineering Level</b>	<b>Port Type</b>	<b>Options</b>	<b>Preset / Pressure Limited</b>	
2 3/8 Inch 3 1/2 Inch 4 3/4 Inch	Without Gauge 13 125 PSIG	A Relieving	* Will be Entered at Factory	Blank NPT <small>Note: 3/8 &amp; 1/2 inch meet ISO 1179-1 Standard.</small>	Blank No Options <small>Inlet Pressure is 100 PSIG. For other pressures, contact factory.</small>	Blank None	

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.

**07R Regulator Kits & Accessories**

- Bonnet Assembly Kit .....PS715P
- Control Knob .....P04069B
- Gauges – 60 PSIG (0 to 4.1 bar)..... K4520N14060
- 160 PSIG (0 to 11.0 bar).....K4520N14160
  
- Mounting Bracket Kit(Includes Panel Mount Nut)..... PS807P
- Panel Mount Nut – Plastic .....P04082
- Metal..... P04079B
  
- Service Kit – Relieving (Includes Poppet).....PS808P
  
- Springs – 2-125 PSIG Range.....P04063
  
- Tamperproof Kit ..... PS737P

**Specifications**

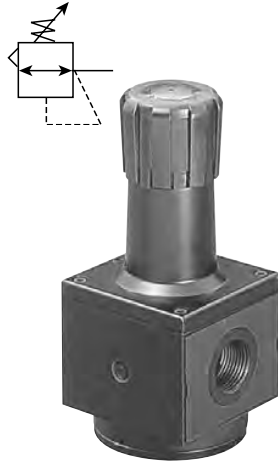
- Gauge Ports (2) ..... 1/4 Inch  
(Can be used as additional High Flow 1/4 Inch Outlet Ports)
- Port Threads ..... 3/8, 1/2, 3/4 Inch
- Primary Pressure Rating –  
Maximum Primary Pressure ..... 250 PSIG (17.2 bar)
- Secondary Pressure Range –  
Standard Pressure ..... 2 to 125 PSIG (0 to 8.6 bar)
  
- 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

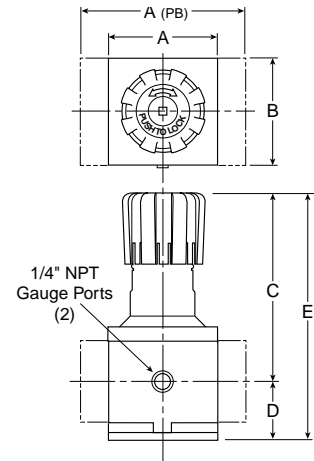


## P3NR Regulators – Hi-Flow



### 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<sup>§</sup>  
 1" – 300 SCFM<sup>§</sup>  
 1½" – 300 SCFM<sup>§</sup>



Port Size	NPT
	Without Gauge
3/4"	P3NRA96BNN
1"	P3NRA98BNN
1½"	P3NRA9PBNN

P3NR Regulator Dimensions		
A	A <sup>(PB)</sup>	B
3.62 (92)	5.91 (150)	3.62 (92)
C	D	E
6.38 (162)	2.08 (53)	8.46 (215)

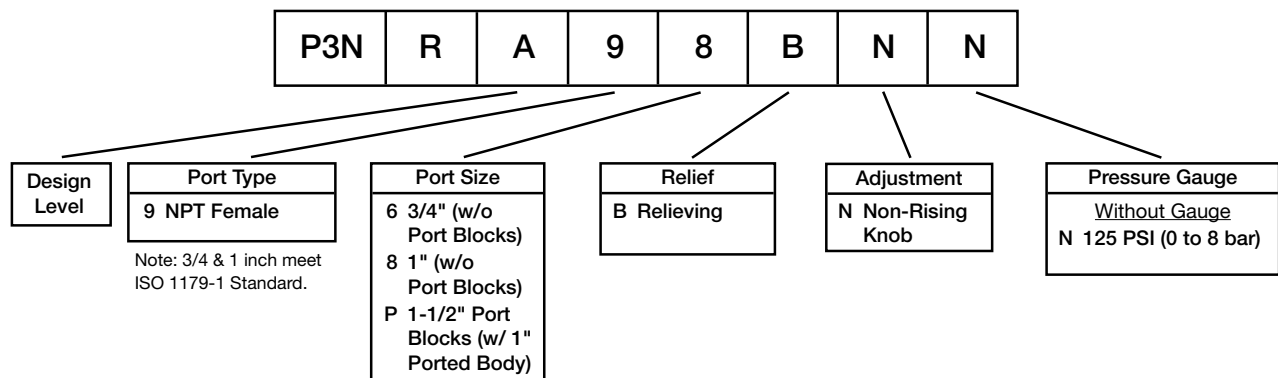
Inches (mm)

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.

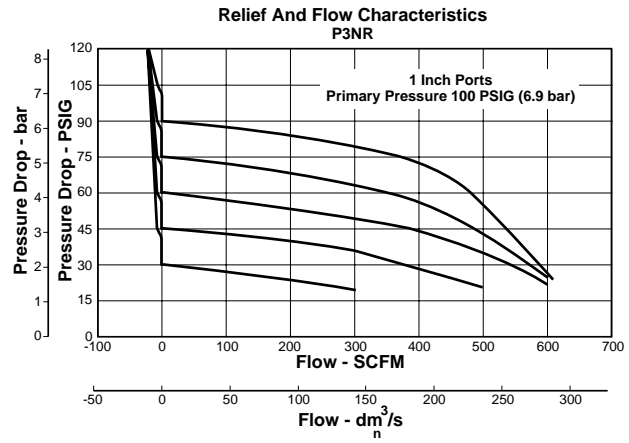
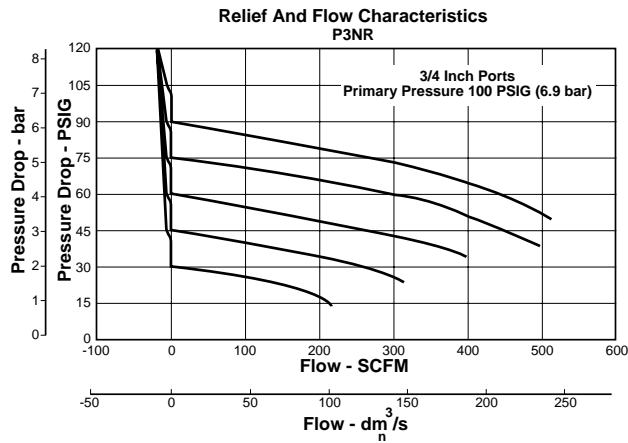
⚠ WARNING
<p>Product rupture can cause serious injury.                      Do not connect regulator to bottled gas.                      Do not exceed maximum primary pressure rating.</p>

## Ordering Information





**Technical Information**

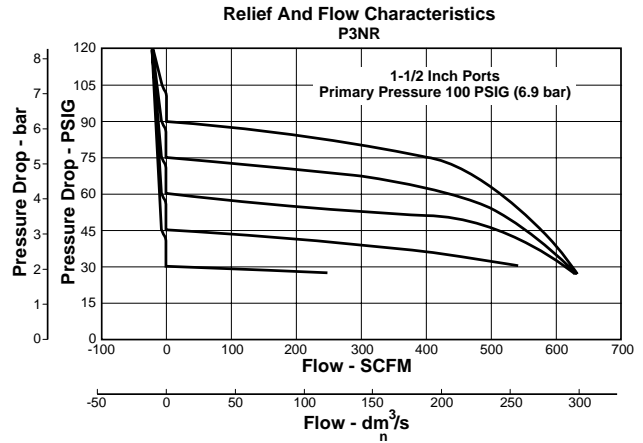


**CAUTION:**

**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.



**P3NR Regulator Kits & Accessories**

- Control Knob ..... P3NKA00PN
- Gauges – 60 PSIG (0 to 4.1 bar) ..... K4520N14060
- 160 PSIG (0 to 11.0 bar) ..... K4520N14160
- Mounting Bracket Kit ..... P3NKA00MW
- Service Kit – Relieving ..... P3NKA00RR
- Springs – 2-125 PSIG Range ..... C10A1308

**Specifications**

- Gauge Ports (2) ..... 1/4 Inch  
 (Can be used as additional High Flow 1/4 Inch Outlet Ports)
- Port Threads ..... 3/4, 1, 1-1/2 Inch
- Primary Pressure Rating –  
 Maximum Primary Pressure ..... 250 PSIG (17.2 bar)
- Secondary Pressure Range –  
 Standard Pressure ..... 2 to 125 PSIG (0 to 8.6 bar)

- 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)
- 1½" † ..... 5.3 lb. (2.4 kg)

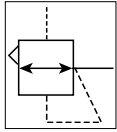
**Materials of Construction**

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

† 1" Port Body with 1½" Port Block.

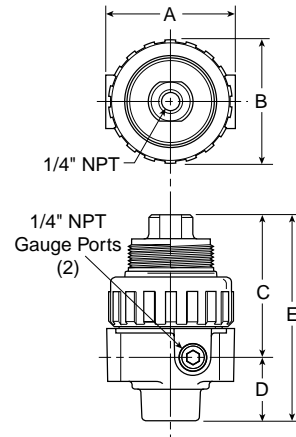


## 11R Pilot Controlled Regulator – Compact



### 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
	Without Gauge
1/4"	<b>11R115P*</b>
3/8"	<b>11R215P*</b>
1/2"	<b>11R315P*</b>

11R Pilot Regulator Dimensions		
A	B	C
2.81 (71)	2.74 (70)	3.05 (77)
D	E	
1.39 (35)	4.44 (113)	

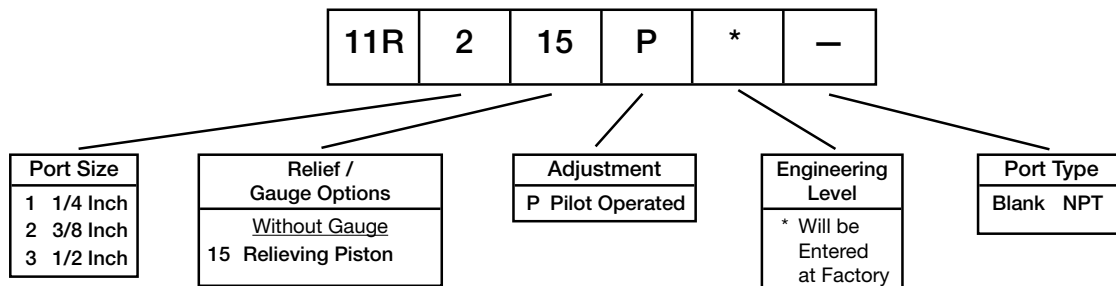
NOTE: 2.00 Dia. (50,8mm) hole required for panel mounting.

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

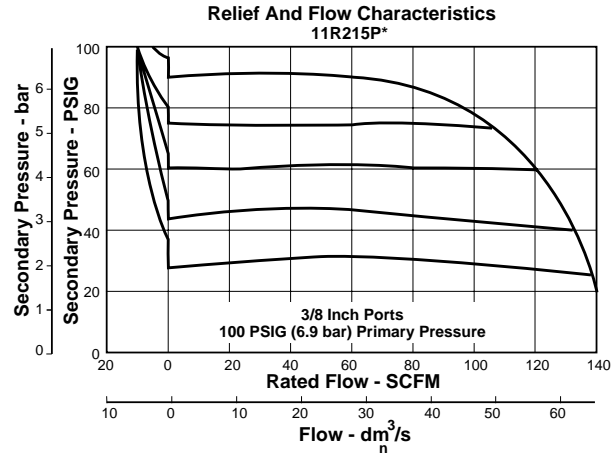
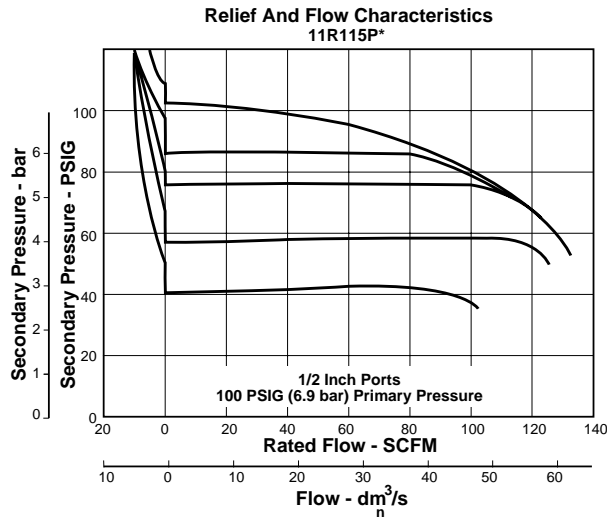
Inches (mm)

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

### Ordering Information



**Technical Information**



**11R Pilot Regulator Kits & Accessories**

Body Service Kits – Seat Insert Kit .....	PS713P
Gauges – 60 PSIG (0 to 4.1 bar) .....	K4520N14060
160 PSIG (0 to 11.0 bar).....	K4520N14160
Mounting Bracket Kit (Includes Panel Mount Nut).....	PS707P
Panel Mount Nut – Plastic .....	P04082
Metal .....	P04079B
Pilot Conversion Kit – Relieving .....	PS745P
Service Kits – Relieving .....	PS749P

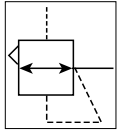
**Specifications**

Gauge Ports (2) .....	1/4 Inch (Can be used as additional Full Flow 1/4 Inch Outlet Ports)
Port Threads .....	1/4, 3/8, 1/2 Inch
Pressure & Temperature Rating – .....	0 to 250 PSIG (0 to 17.2 bar) 32°F to 175°F (0°C to 80°C)
Weight.....	1.3 lb. (0.58 kg.)

**Materials of Construction**

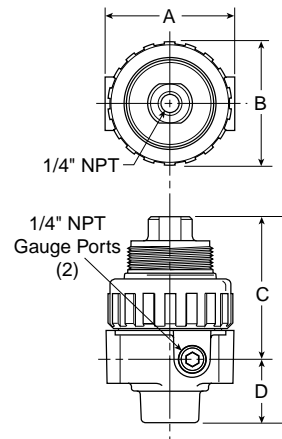
Body & Pilot Cap .....	Zinc
Piston, Valve Poppet, & Collar .....	Plastic
Seals .....	Nitrile
Springs .....	Steel

## 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<sup>§</sup>  
 1/2" – 140 SCFM<sup>§</sup>  
 3/4" – 140 SCFM<sup>§</sup>



Port Size	NPT
	Without Gauge
3/8"	<b>12R215P*</b>
1/2"	<b>12R315P*</b>
3/4"	<b>12R415P*</b>

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

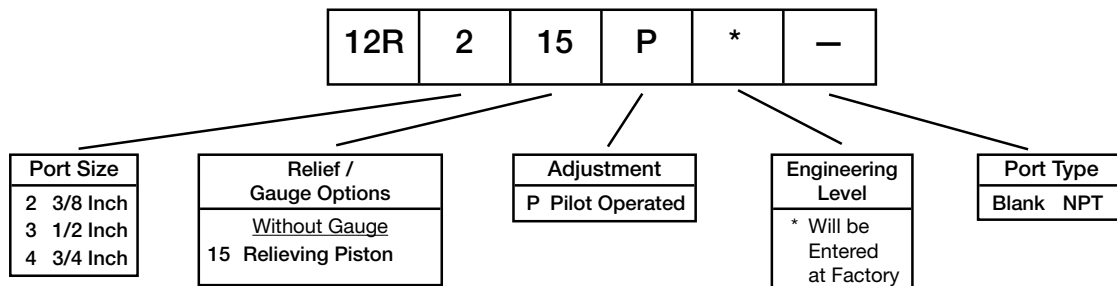
NOTE: 2.00 Dia. (50,8mm) hole required for panel mounting.

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

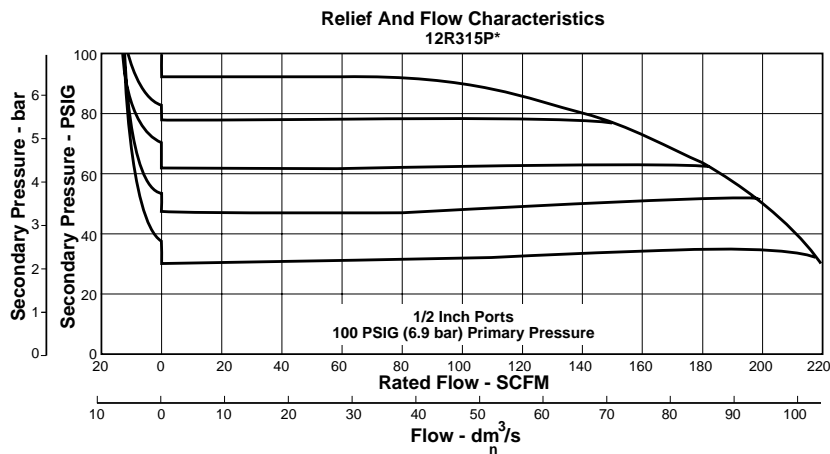
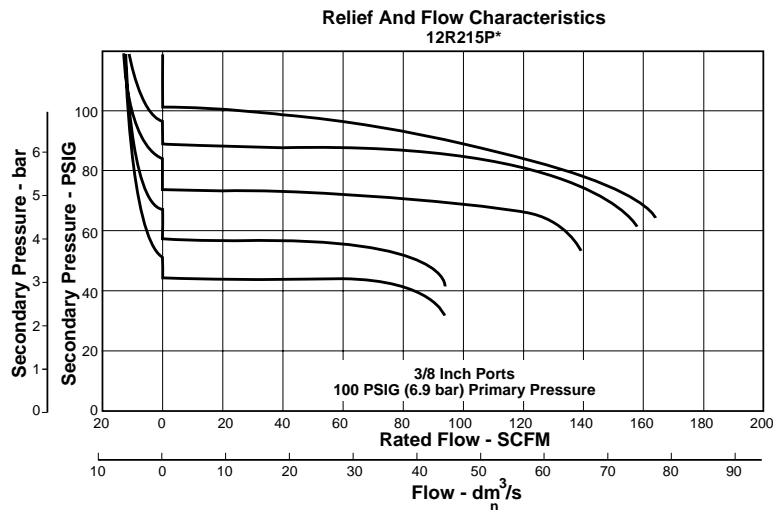
Inches (mm)

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

### Ordering Information



**Technical Information**



**12R Pilot Regulator Kits & Accessories**

Body Service Kits – Seat Insert Kit.....	PS813P
Gauges – 60 PSIG (0 to 4.1 bar).....	K4520N14060
160 PSIG (0 to 11.0 bar).....	K4520N14160
Mounting Bracket Kit (Includes Panel Mount Nut).....	PS807P
Panel Mount Nut – Plastic.....	P04082
Metal.....	P04079B
Pilot Conversion Kit – Relieving.....	PS745P
Service Kits – Relieving.....	PS849P

**Specifications**

Gauge Ports (2).....	1/4 Inch
(Can be used as additional Full Flow 1/4 Inch Outlet Ports)	
Port Threads.....	3/8, 1/2, 3/4 Inch
Pressure & Temperature Rating –.....	0 to 250 PSIG (0 to 17.2 bar)
	32°F to 175°F (0°C to 80°C)
Weight.....	2.0 lb. (0.91 kg)

**Materials of Construction**

Body & Pilot Cap.....	Zinc
Piston, Valve Poppet, & Collar.....	Plastic
Seals.....	Nitrile
Springs.....	Steel

