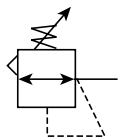




## PR10, PR11 Regulator – Standard



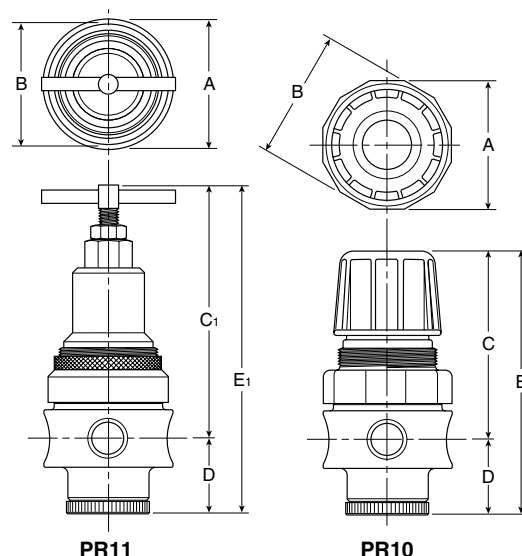
PR10



PR11

### 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>



Series	Adjustment Type	Port Size	NPT	BSPP
PR10	Knob	1/2"	<b>PR10-04CSS</b>	PR10G04CSS
PR11	T-Handle	1/2"	<b>PR11-04CSS</b>	PR11G04CSS

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

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



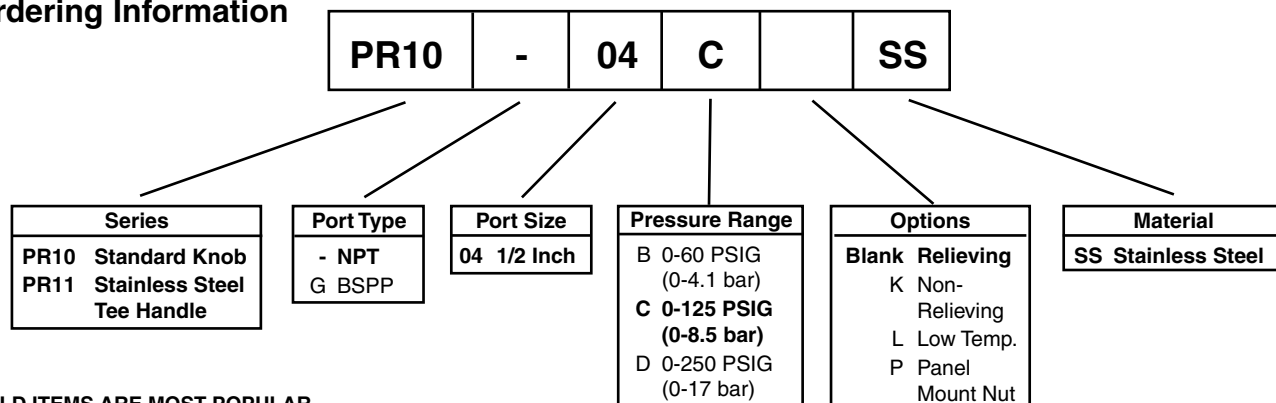
### WARNING

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

PR10, PR11 Regulator Dimensions		
A	B	C
2.34 (60)	2.43 (62)	3.59 (91)
C <sub>1</sub>	D	E
4.70 (119)	1.38 (35)	4.97 (126)
E <sub>1</sub>		
6.08 (154)		

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

## Ordering Information



BOLD ITEMS ARE MOST POPULAR.

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**PNEUMATIK**

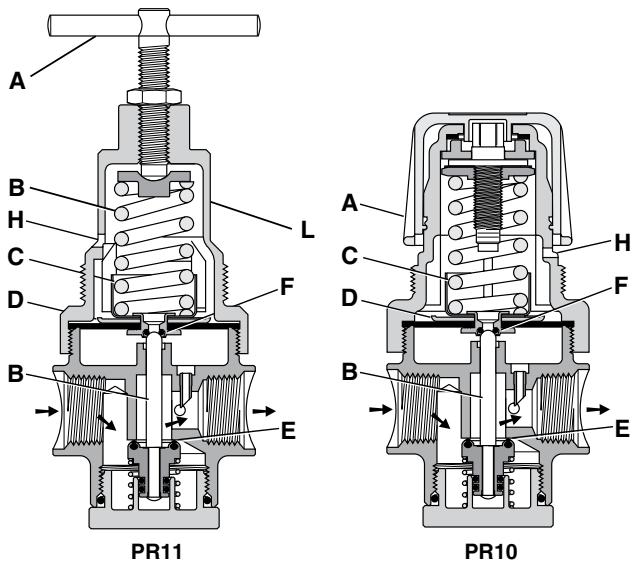
53-012 Wrocław tel. 71 364 72 82  
 ul. Wyścigowa 38 fax 71 364 72 83

[www.arapneumatik.pl](http://www.arapneumatik.pl)





## Operation



With the adjusting knob / T-Handle (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.)

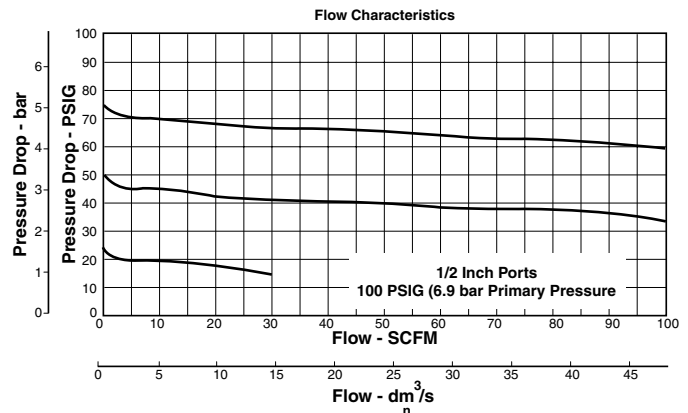
## Technical Information

### 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.



## PR10, PR11 Regulator Kits & Accessories

PR10 Bonnet Kit (Knob Included) .....CKR10YSS

PR11 Bonnet Kit .....CKR11YSS

#### Gauge (Stainless) –

160 PSIG (0 to 1100 kPa), 2" Face .....K4520N14160SS

Panel Mount Bracket (Stainless) .....161X57-SS

#### Panel Mount Nut –

Stainless .....R10X51-SS

Plastic .....R10X51-P

#### Pipe Nipple –

1/2" 316 Stainless Steel .....616A28-SS

#### Service Kit –

Relieving .....RKR10YSS

Non-Relieving .....RKR10KYSS

#### Springs –

0-60 PSIG Range .....SPR-388-1-SS

0-125 PSIG Range .....SPR-389-1-SS

0-250 PSIG Range .....SPR-390-1-SS

## Specifications

Gauge Port .....1/4 Inch

Operation .....Fluorocarbon Diaphragm

Port Threads .....1/2 Inch

#### Pressure & Temperature Ratings –

PR10 ..... 300 PSIG Max (20.7 bar)

0°F to 150°F (-18°C to 66°C)

PR11 ..... 300 PSIG Max (20.7 bar)

0°F to 180°F (-18°C to 82°C)

Option "L" Minimum Operating Temperature† ..... -40° C/F

**Note: Air must be dry enough to avoid ice formation at temperatures below 32°F (0°C)**

Weight ..... 1.79 lb. (0.81 kg)

## Materials of Construction

Adjustment Mechanism / Springs .....316 Stainless Steel

Body .....316 Stainless Steel

Bonnet / Tee Handle (PR11) .....316 Stainless Steel

Bonnet / Knob (PR10) ..... Acetal

Bottom Plug .....316 Stainless Steel

Poppet .....316 Stainless Steel

Seals ..... Fluorocarbon

† **Note:** "Low Temperature" option is intended for applications where the ambient temperature may be down to -40° C/F. Air supply must be free of moisture to prevent ice formation and malfunction of units. These units contain EPDM seals. Make sure any oils in the airstream are compatible.