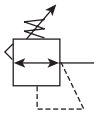
PR10, PR11 Regulator – Standard

- 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
- 1/2" port (NPT, BSPP)



PR11

PR10

Port Size	Description	Part Number
1/2"	Standard Knob, NPT	**PR10-04CSS**
1/2"	Stainless Steel T-Handle, NPT	**PR11-04CSS**

Operating information

Operating pressure:	
PR10	300 psig (20.7 bar)
PR11	300 psig (20.7 bar)
Operating temperature:	
PR10	0°F to 150°F (-18°C to 66°C)
PR11	0°F to 180°F (-18°C to 82°C)
Option "L" minimum	-40°F (-40°C)
Flow capacity†:	80 scfm (37.8 dm^3/s, ANR)
Gauge port:	1/4 inch
Operation:	Fluorocarbon diaphragm
Weight:	1.79 lb (0.81 kg)

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

† scfm = Standard cubic feet per minute at 100 psig inlet, 75 psig no flow secondary setting and 15 psig pressure drop.

Ordering Information:

PR10 – 04 C ☐ SS

Series	
Stainless Knob	PR10
Standard Steel, T-Handle	PR11

Port Type	
NPT	–
BSPP	G

Port Size	
1/2 inch	04

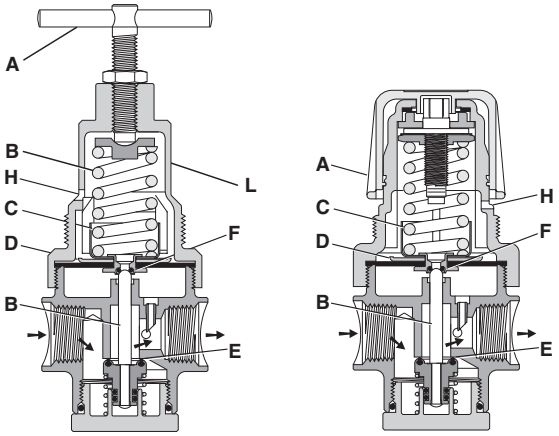
Pressure Range	
B	0 to 60 psig (0 to 4.1 bar)
C	0 to 125 psig (0 to 8.5 bar)
D	0 to 250 psig (0 to 17.2 bar)

Options	
Blank	Relieving
K	Non-Relieving
L	Low Temp.
P	Panel Mount Nut

Material	
SS	Stainless Steel

☐ Most popular.

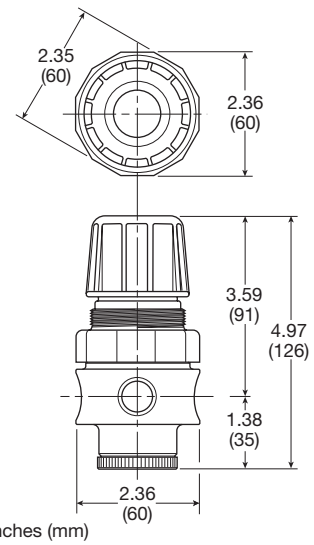
Operation



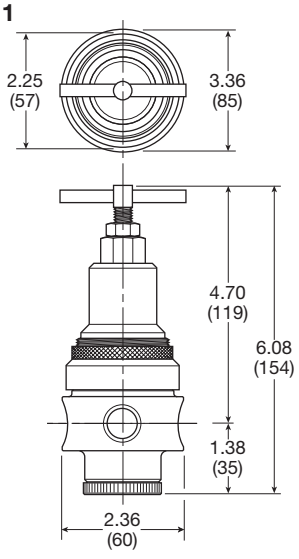
With the adjusting knob / T-Handle **(A)** turned fully counter-clockwise (no spring load), and pressure supplied to the regulator inlet port, the valve poppet assembly **(B)** is closed. Turning the adjusting knob clockwise applies a load to control spring **(C)**. This load causes the diaphragm **(D)**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

PR10



PR11



Inches (mm)

Material Specifications

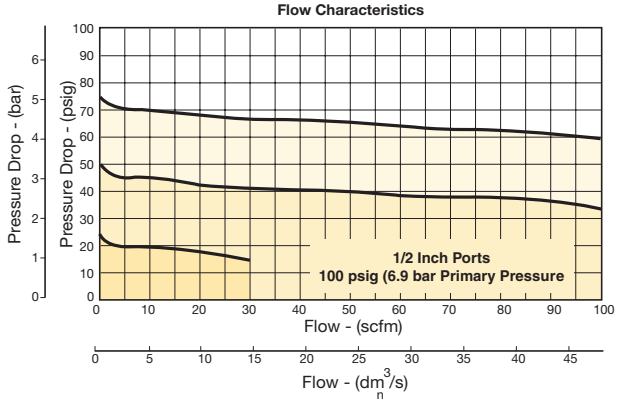
Adjustment mechanism / springs	316 stainless steel
Body	316 stainless steel
Bonnet / tee handle (PR11)	316 stainless steel
Bonnet / knob (PR10)	Acetal
Bottom plug	316 stainless steel
Poppet	316 stainless steel
Seals	Fluorocarbon

Repair and Service Kits

PR10 bonnet kit (knob included)	**CKR10YSS**
PR11 bonnet kit	**CKR11YSS**
2" Face 160 psig (0 to 1100 kPa), gauge (stainless)	**K4520N14160SS**
Panel mount bracket (stainless)	**R10Y57-SS**
Panel mount nut, stainless	**R10X51-SS**
Panel mount nut, plastic	**R10X51-P**
Pipe nipple, 1/2" 316 stainless steel	**616A28-SS**
Relieving	**RKR10YSS**
Non-relieving	**RKR10KYSS**
0-60 psig spring	**SPR-388-1-SS**
0-125 psig spring	**SPR-389-1-SS**
0-250 psig spring	**SPR-390-1-SS**

Flow Charts

PR10 1/2" Regulator



⚠ 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.