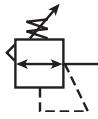
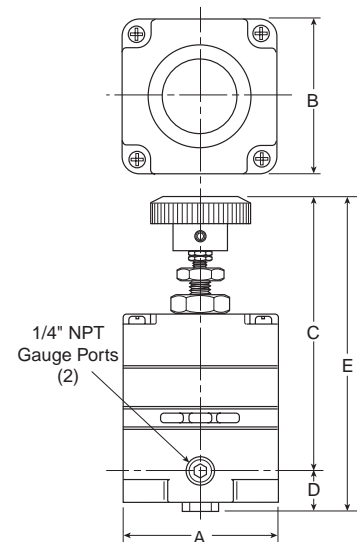


R210 / R220 High Precision Regulator



Features

- Accurate Pressure Regulation Controls Output Pressure to within 0.1% Accuracy
- Multi-Stage Regulation for Maximum Control and Stability
- Two Full Flow Gauge Ports
- Super Sensitive Relief. Downstream Pressure Buildup, Down to 0.005 PSIG Above the Set Pressure, is Automatically Vented through Internal Relief Valve
- R220 has High Exhaust Relief Capacity



R210 / R220 Regulator Dimensions				
A	B	C	D	E
2.10 (53)	2.16 (54)	3.82 (97)	0.53 (13.5)	4.35 (110)

inches
(mm)

The R210 / R220 are high precision, multi-stage pressure regulators. This pressure controller provides the highest level of regulation accuracy and repeatability available and is ideal for applications that call for the utmost in control and maximum stability under variable operating conditions. A stainless steel measuring capsule is used as a sensing element to activate the high gain servo balanced control mechanism in which the main valve is controlled by a pilot valve. This allows for greater accuracy and eliminates many of the problems associated with conventional regulators using range springs and diaphragms.

Applications

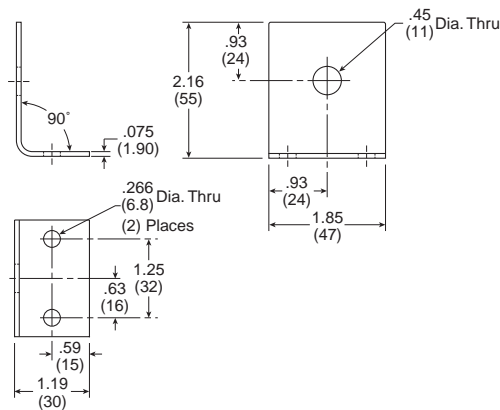
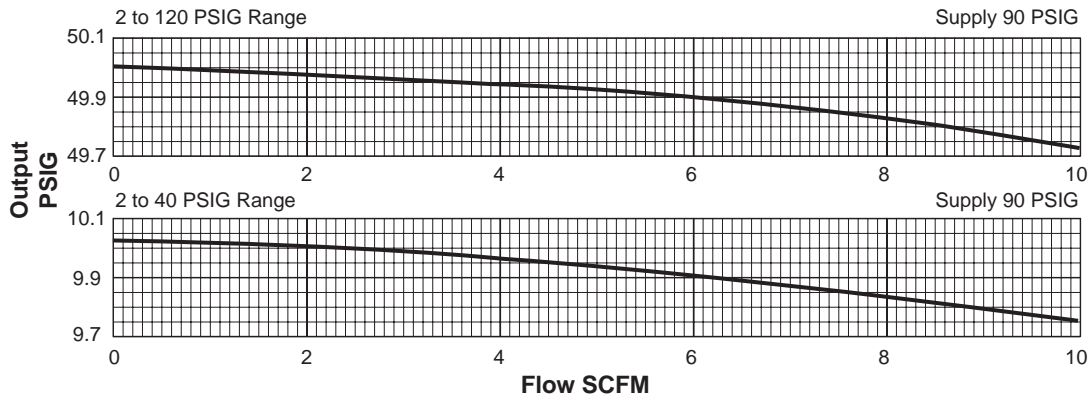
The R210 and R220 regulators are well suited for any process that requires very precise regulation of air pressure in pipes and vessels. These regulators are often used, but not limited to the following applications:

- Air Gauging
- Gas Mixing
- Calibration Standards
- Air Hoists
- Web Tensioning
- Gate Actuators
- Roll Loading
- Valve Operators
- Cylinder Loading

Ordering Information

		Reduced Pressure Range (PSIG)		
Relieving		2 to 40	2 to 120	2 to 120 High Relief
In / Out Ports	1/4"	R210-02A	R210-02C	R220-02C

Technical Information



Mounting Bracket: 446-707-045

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.

R210 / R220 Regulator Kits & Accessories

Mounting Bracket Kits –

- Pipe Mounting (Pair)..... SA200YW57
- Right Angle Mounting 446-707-045

Service Kits –

- 2-40 PSIG..... RKR210A*
- 2-120 PSIG..... RKR210C*
- 2-120 PSIG (High Relieving) RKR220C*

* Parts in Kit: Diaphragms, Gasket, Bleed Orifice

Specifications

Constant Bleed Rate Less than 0.08 SCFM (0.15m³/hr)
 (Equals Bleed Rate plus other consumption)

Total Air Consumption 6 SCFM (0.21m³/hr.)

Effect of Supply Pressure Variation of 25 PSIG (1.7 bar) on Outlet:
 Less than 0.005 PSIG (0.0003 bar)

Exhaust (Relief) Capacity –

- At 5 PSIG (0.34 bar) above 20 PSIG (1.38 bar) Setpoint
- Standard Model** 3 SCFM (3.4m³/hr)
- High-Relief Model** 11 SCFM (17m³/hr)

Flow Capacity –

- At 100 PSIG (6.89 bar) Supply,
- 20 PSIG (1.38 bar) Outlet..... 14 SCFM (25m³/hr)

Gauge Ports 1/4" NPTF
 (Can be used as additional full flow 1/4" outlet ports)

Operating Pressure Range:

	PSIG	bar
PRIMARY – Maximum	150	10.34

SECONDARY – Spring Pressure

PSIG	Minimum	Maximum	PSIG	Minimum	Maximum
40 PSIG	2	40	2	0.14	2.76
120 PSIG	2	120	2	0.14	8.27

Operating Temperature Range -18°C * to 65°C (0°F* to 150°F)
 * Temperatures below 0°C (32°F) require moisture free air.

Repeatability / Sensitivity 0.005 PSIG (0.0003 bar)
 Inches of Water Column = 1/8"

Weight 1.4 lb (0.64 kg)

Materials of Construction

- Adjusting Stem & Capsule** Stainless Steel
- Body** Zinc
- Control Knob** Plastic
- Diaphragm(s)** Buna-N
- Seals** Buna-N
- Springs** Stainless Steel
- Valve Poppet** Stainless Steel

