

R20 Series

High Pressure Regulator

Inlet Pressure	Max.24 MPaG (Max.3,480 PSIG)
Outlet Pressure	Max.0.99 MPaG (Max.144 PSIG) (Pressure Range: 0~0.2 MPa, 0~0.4 MPa, 0~0.6 MPa, 0~0.99 MPa)
Supply Pressure Effect	0.00086 MPaG (0.12 PSIG) per 0.1 MPaG (14.5 PSIG)
Proof Pressure	31.5 MPa (4,567 PSI), 1.5 MPa (Outlet Side)
CV	0.08
Temperature	-10°C to +40°C
Outboard Leakage	Screw (P); 1×10^{-9} Pa · m ³ /sec · He (1×10^{-8} atm · cc/sec · He) Welding (W); 1×10^{-11} Pa · m ³ /sec · He (1×10^{-10} atm · cc/sec · He)
Internal Volume	4.67 cc (0.28 in ³) w/o fittings
Approximate weight	1.29 kg (2 lbs.14 oz.)
Installation	Threaded holes on the rear surface or Panel mounting

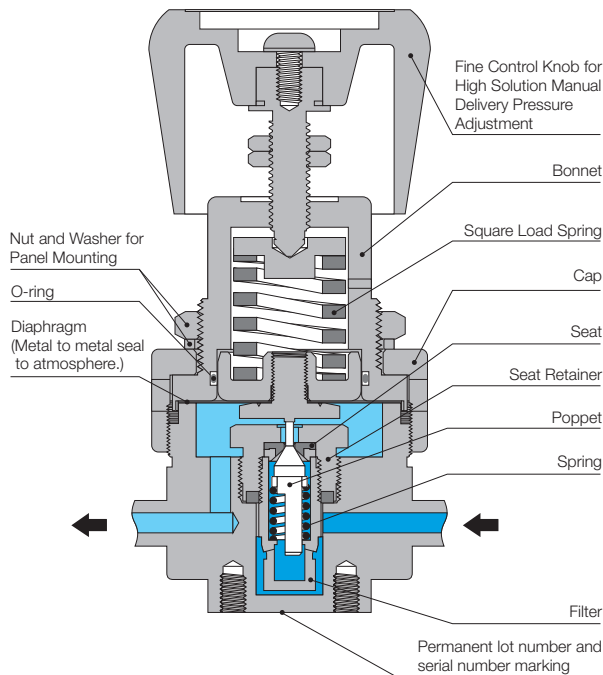
[NOTE]

1MPa = 10.2 kgf/cm² = 145.04 PSI

1MPa = 7504.36 mmHg = 295.4 inHg



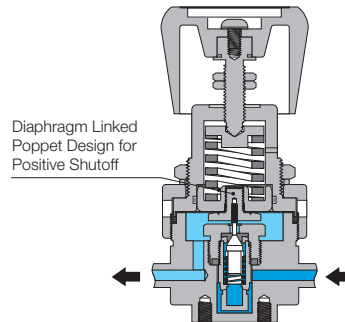
Cross sectional drawing



[NOTE]

- Avoid turning the control knob excessively.
- Series R25, R26 are recommended for Chlorine (CL₂) service and Nitrous Oxide (N₂O) service.

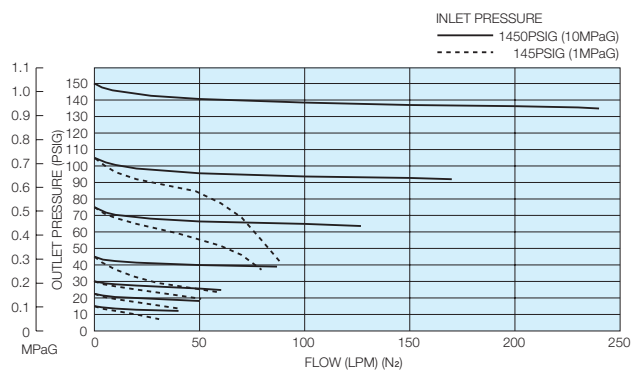
Tied Diaphragm (Optional)



[NOTE]

Operating the Tied Diaphragm Type: In order to minimize premature wear of regulator's internal parts. Be sure not to close regulator while under pressure.

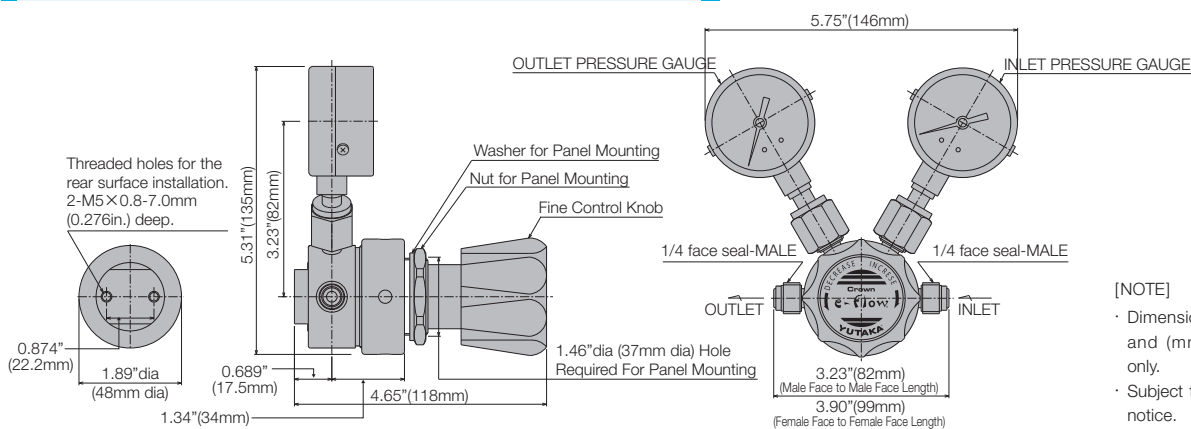
Flow characteristics



[NOTE]

- These tests were performed at ambient conditions.

Outline drawing



Materials of construction

MODEL & TYPE	R20SS	R20SH	R20SS-CO
Wetted Parts			
Body	SUS316L		
Poppet & Seat Retainer	SUS316L	Hastelloy® C-22	SUS316L
Diaphragm	SUS316L	Hastelloy® C-22	SUS316L
Seat	PTFE		
Spring	SUS316		
Gasket	PTFE and PTFE		
Gasket to seal for gauge	Ni		SUS316
Non-wetted Parts			
Bonnet	Nickel Plated Brass		
Cap	Nickel Plated Brass		
Control Knob	ABS Resin		
O-ring	NBR		

Wetted surface finishes

Standard Ra (GRADE "B"&"C")	32µin. (0.80µm) or less
Optional Ra (GRADE "A")	7µin. (0.18µm) or less

Standard connections

1/4" NPT body length	1.93in. (48mm)
1/4" face to face length of the male and female are the same. (Male)	3.23in. (82mm)
1/4" face to face length of the male and female are the same. (Female)	3.90in. (99mm)
1/4" sus tube fitting length	4.37in. (111mm)

- [NOTE]
- Any combination of Face Seal male and/or female fittings are available for inlet and outlet.
 - Size and configuration of pressure gauge port is 1/4" Face Seal male.

Ordering information

