

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); $1 \times 10^{-9} \text{ Pa} \cdot \text{m}^3/\text{sec} \cdot \text{He}$ ($1 \times 10^{-8} \text{ atm} \cdot \text{cc}/\text{sec} \cdot \text{He}$) Welding (W); $1 \times 10^{-11} \text{ Pa} \cdot \text{m}^3/\text{sec} \cdot \text{He}$ ($1 \times 10^{-10} \text{ atm} \cdot \text{cc}/\text{sec} \cdot \text{He}$) |
| 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 |

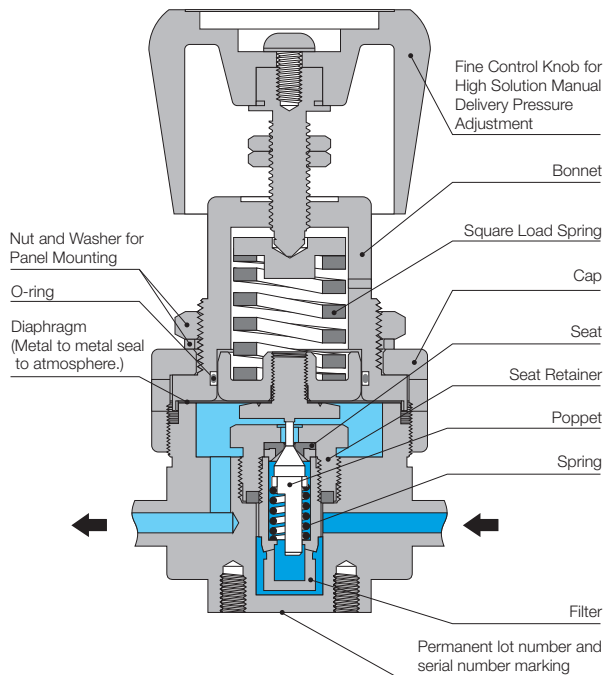
[NOTE]

1MPa = 10.2 kgf/cm² = 145.04 PSI

1MPa = 7504.36 mmHg = 295.4 inHg



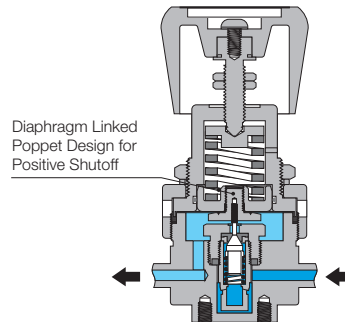
Cross sectional drawing



[NOTE]

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

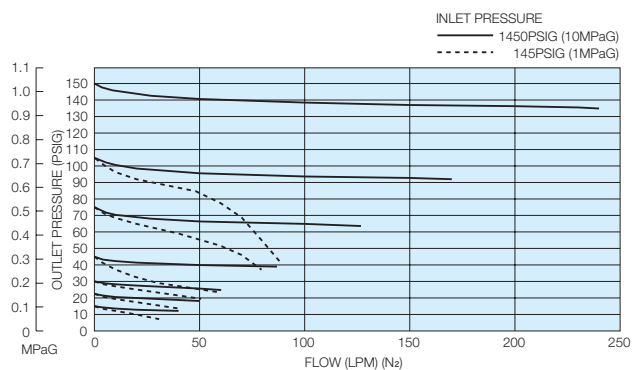
Tied Diaphragm (Optional)



[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.

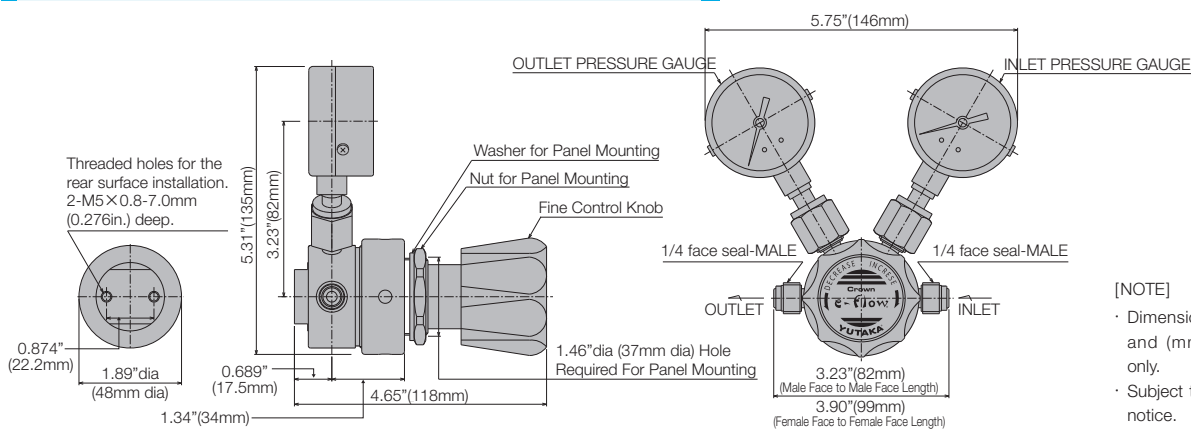
Flow characteristics



[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

