

R25 Series

Point-of-Use Pressure Regulator

Inlet Pressure	Max.6 MPaG (Max.870 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	0.00178 MPaG (0.27 PSIG) per 0.1 MPaG (14.5 PSIG)
Proof Pressure	31.5 MPa (4,567 PSI), 1.5 MPa (Outlet Side)
CV	0.12
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	0.96 kg (2 lbs. 2 oz.)
Installation	Threaded holes on the rear surface or Panel mounting

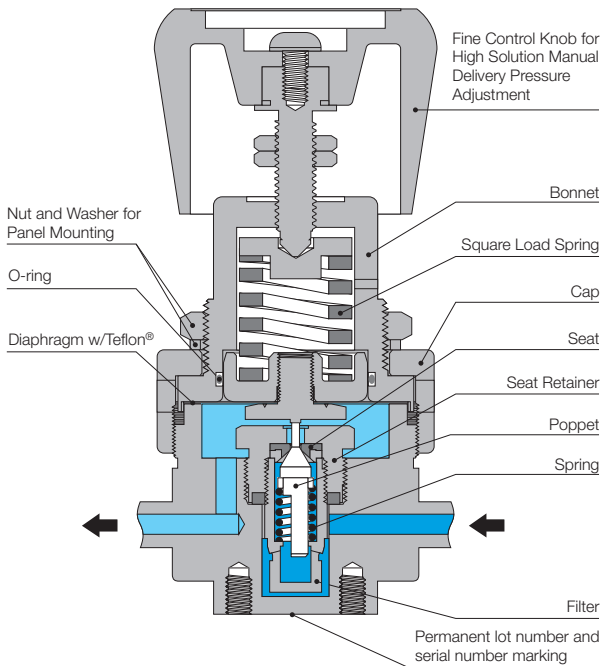
[NOTE]

1MPa = 10.2 kgf/cm² = 145.04 PSI

1MPa = 7504.36 mmHg = 295.4 inHg



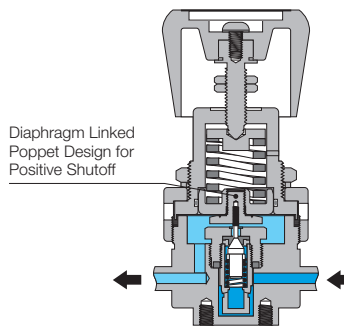
Cross sectional drawing



[NOTE]

- Avoid turning the control knob excessively.
- For purging at 870 PSIG (6 MPaG) and higher, operate the unit in consideration of changing the outlet pressure by the supply pressure effect.

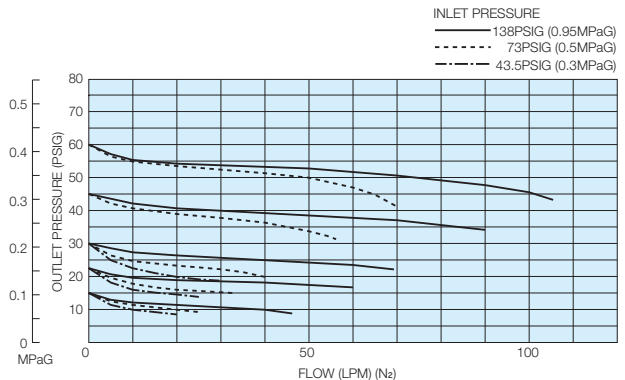
Tied Diaphragm (Optional)



[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.

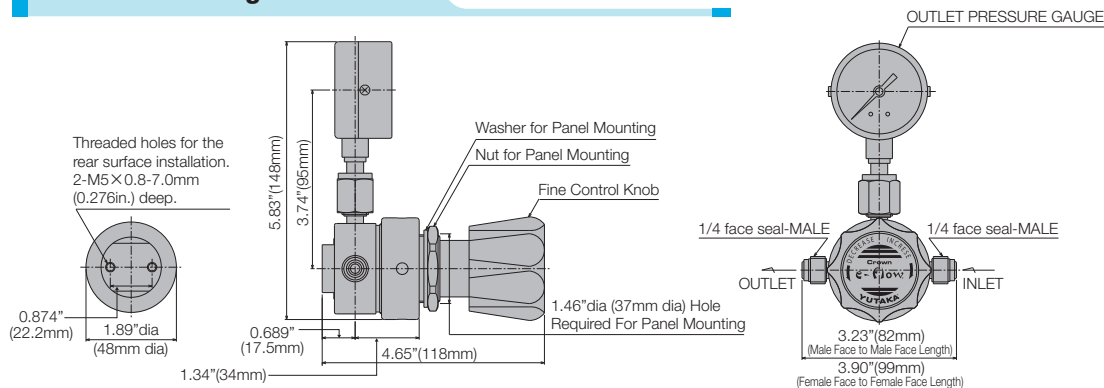
Flow characteristics



[NOTE]

- These tests were performed at ambient conditions.

Outline drawing



[NOTE]
 · Dimensions are in inches and (mm) for reference only.
 · Subject to change without notice.

Materials of construction

MODEL & TYPE	R25SS	R25SH	R25SH-CL2	R25SS-N20	R25SS-CO
Wetted Parts					
Body	SUS316L				
Poppet & Seat Retainer	SUS316L	Hastelloy® C-22		SUS316L	
Diaphragm	SUS316L	Hastelloy® C-22		SUS316L	
Seat	PCTFE		Special Fluoroplastics	Vespel®	PCTFE
Spring	SUS316				
Gasket	PCTFE 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

SERIES
R | R Series

MATERIAL
SS SUS
SH SUS+ Hastelloy® C-22

GRADE
A Electropolish
B Standard
C Not certified particle counts

PORTING
2 2 Ports
3 3 Ports
4 4 Ports

PORT TYPE
W Welding Port
P Screw Port
G Special Specification

GAS APPLICATION
CO Carbon Monoxide
CL2 Chlorine
N2O Nitrogen Oxide

MODEL
25 Point-of-Use Pressure Regulator

MAX. INLET PRESSURE
04 6MPa
01 0.99MPa

INLET/OUTLET PRESSURE GAUGE
5A 0~25MPa
H8 0~16MPa
2A 0~10MPa
6B 0~6MPa
A5 0~2.5MPa
2J 0~1.6MPa
A2 0~1MPa
B6 0~0.6MPa
B3 0~0.3MPa
2K -0.1~0~1.6MPa
2R -0.1~0~1.0MPa
R6 -0.1~0~0.6MPa
R3 -0.1~0~0.3MPa
R1 -0.1~0~0.1MPa
GE Others

OUTLET PRESSURE RANGE
10 0~0.99MPa
06 0~0.6MPa
04 0~0.4MPa
02 0~0.2MPa

INLET / OUTLET
Inlet / Outlet

SEAT MATERIALS
T PTFE
I Vespel
E PEEK
F PFA

OPTIONS
A Tied Diaphragm
2 IN/OUT Reverse Position
Q Electropolish (GRADE"A")
T Vacuum-Proof
G Special Specification

Type
1 W21-14
2 W22-14
6 W26-14

Size
2 1/8
4 1/4
6 3/8
8 1/2
0 Others

Configuration
R Right
L Left
M Male
F Female

Others
9 0 0