

R81 Series

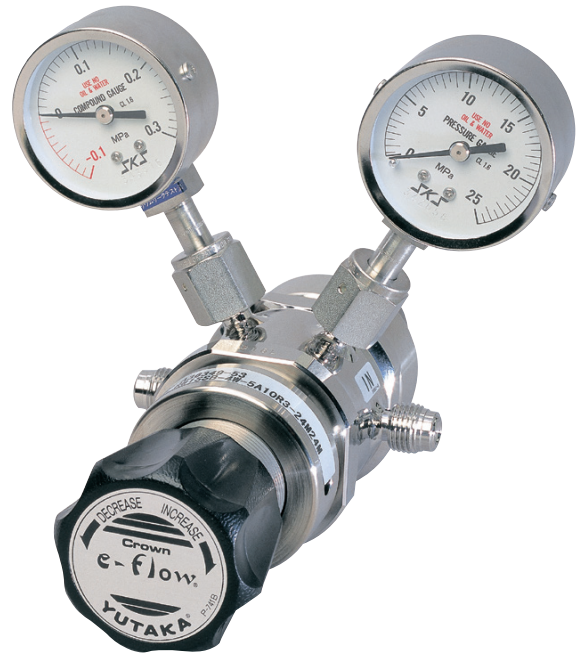
Minimizes Supply Pressure Effect

Inlet Pressure	Max.24 MPaG (Max.3,480 PSIG)
Outlet Pressure	Max.0.6 MPaG (Max.87 PSIG) (Pressure Range: 0~0.2 MPa, 0~0.4 MPa, 0~0.6 MPa)
Supply Pressure Effect	0.00004 MPaG (0.0058 PSIG) per 0.1 MPaG (14.5 PSIG)
Proof Pressure	31.5 MPa (4,567 PSIG)
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	14.5 cc (0.88 in ³) w/o fittings
Approximate weight	2.4 kg (5 lbs. 5 oz.)
Installation	Threaded holes on the rear surface or Panel mounting

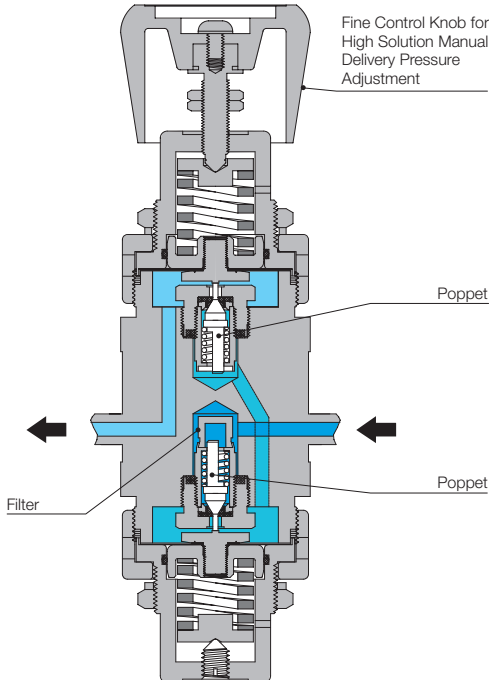
[NOTE]

1MPa = 10.2 kgf/cm² = 145.04 PSI

1MPa = 7504.36 mmHg = 295.4 inHg



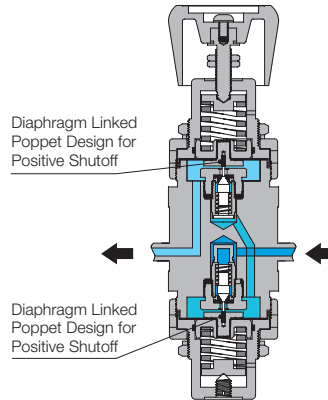
Cross sectional drawing



[NOTE]

· Avoid turning the control knob excessively.

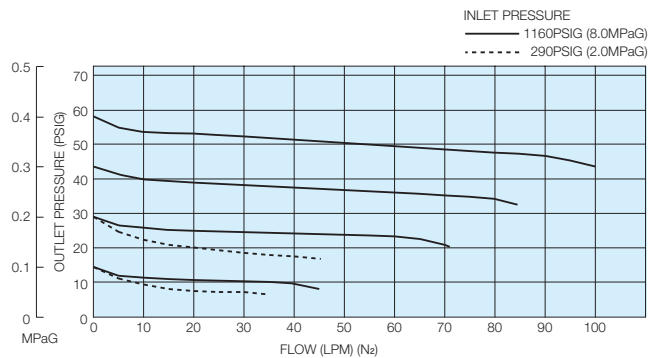
Tied Diaphragm (Optional)



[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.

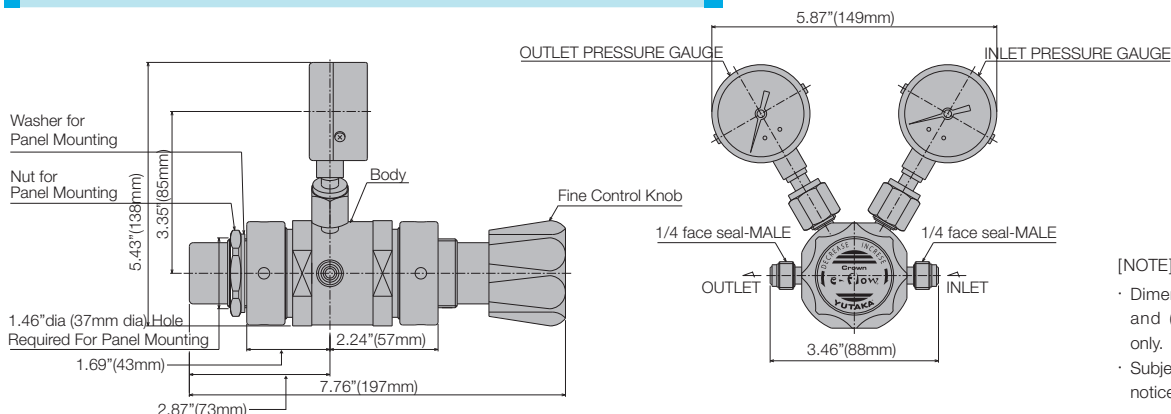
Flow characteristics



[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	R81SS	R81SH	R81SS-N20	R81SS-CO
Wetted Parts				
Body	SUS316L			
Poppet	SUS316L	Hastelloy® C-22	SUS316L	
Seat Retainer	SUS316	Hastelloy® C-22	SUS316	
Diaphragm	SUS316L	Hastelloy® C-22	SUS316L	
Seat	PCTFE		Vespel®	PCTFE
Spring	SUS316			
Gasket	PCTFE and PTFE		PTFE and Vespel®	PCTFE and PTFE
Gasket to seal for gauge	Ni			SUS316
Non-wetted Parts				
Bonnet	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 2.13in. (54mm)
 1/4" face to face length of the male and female are the same. (Male) 3.46in. (88mm)
 1/4" face to face length of the male and female are the same. (Female) 4.13in. (105mm)

[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

