

# TRG SERIES



## ULTRA HIGH PURITY REGULATOR

- Designed for point-of-use medium flow to be used in process gas cabinets for gas companies, equipment manufactures and semiconductor manufacturers.
- All internal surfaces are finished with 10Ra or 5Ra to ensure minimal particle generation and entrapment.
- Metal-to-metal diaphragm seals provide enhanced leak tight integrity.
- Every step of assembly, welding, testing and final cleaning finished in Class 100 Cleanrooms.

## SPECIFICATIONS

All gases corrosive or non-corrosive or those requiring high purity regulation compatible with materials of construction. For other media, consult with factory.

### Per criteria of ANSI / ASME B31.3.

Max. rated inlet pressure	3500 PSIG (241bar)
Outlet pressure ranges	1-30, 1-60, 1-100, 1-150 PSIG (0.1, 2.1, 0.1- 4.1, 0.1- 6.9, 0.1-10.3 bar)
Design proof pressure	150% of Maximum rated pressure

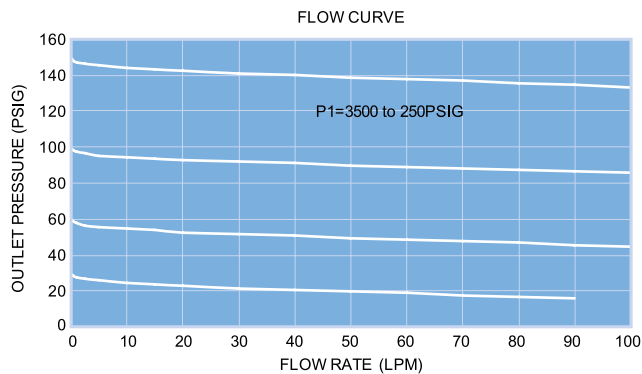
### Materials in Contact with Media

Body	316L Stainless Steel with BA, Electropolish
Seat	PCTFE
Diaphragm	Hastelloy C-22
Gas contact parts	316L Stainless Steel / Hastelloy C-22 / Inconel 750

### Other Parameters

Flow coefficient	Cv=0.06
Certified maximum inboard leak rate	1 x 10 <sup>-9</sup> atm cc / sec He
Internal surface finish	10Ra or 5Ra microinch (.25 or .13 micrometer)
Operating temperature	PCTFE seat -15°F to +176°F (-26°C to +80°C)
Weight (w/o gauges)	3.5 lbs. (1.6kg)

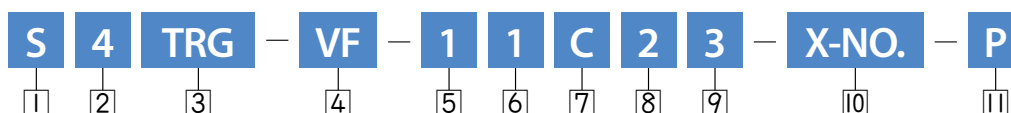
## FLOW CURVES



## MATERIAL

Wetted Parts	RG1 Series
Body	316L Stainless Steel
Seat Holder	316L Stainless Steel Hastelloy C-22
Main Valve	316L Stainless Steel Hastelloy C-22
Valve Spring	316 Stainless Steel Inconel 750
Valve Bush	316L Stainless Steel Hastelloy C-22
Seat	PCTFE (Option : PI)
Diaphragm	Hastelloy C-22

## ORDERING INFORMATION



1 Material	S = 316L Stainless steel SH = 316L Stainless steel with Hastelloy internals DH = 316L Stainless steel VAR with Hastelloy internals
2 Connection Size	4 = 1/4"
3 Product	TRG Series
4 Connection Type	VF = Female Type Face Seal TW = Tube Butt Weld VM = Male Type Face Seal VF x VM = Female Type Face Seal x Male Type Face Seal
5 Maximum Inlet Pressure	1 = 3500 PSIG
6 Maximum Range of Inlet Gauge	1 = 4000 PSIG Blank = No Gauge
7 Gauge Port Configuration	A = No Gauge Port (Fig. A) B = 1/4" Internal Face Seal (Fig. C) C = 1/4" Internal Face Seal (Fig. B) D = 1/4" Internal Face Seal (Fig. D) E = 1/4" Male Face Seal (Fig. D) F = 1/4" Male Face Seal (Fig. C) G = 1/4" Male Face Seal (Fig. B) I = 1/4" Female Face Seal (Fig. C) J = 1/4" Female Face Seal (Fig. B) K = 1/4" Fixed Male Face Seal (Fig. B) L = 1/4" Fixed Male Face Seal (Fig. C) M = 1/4" Fixed Male Face Seal (Fig. D) N = 1/4" Female NPT Thread (Fig. B)
8 Outlet Pressure Range	0 = 1 ~ 30 PSIG 1 = 1 ~ 60 PSIG 2 = 1 ~ 100 PSIG 3 = 1 ~ 150 PSIG
9 Maximum Range of Outlet Gauge	0 = 30 PSIG 1 = 60 PSIG 2 = 100 PSIG 3 = 150 PSIG 4 = 200 PSIG Blank = No Gauge
10 User Option	Customization (※Standard : Blank)
11 Grade	Blank = BA Standard (10 Ra μinch) P (PX) = Electropolishing (5 Ra μinch)

## PORT CONFIGURATION

