GO REGULATOR

UPR-1

Precision Pressure Regulator

The Model UPR-1 is the High Purity version of the GO Regulator PR-1 whose design and performance reliability has been proven in over 30 years of field use. The UPR-1 design features include internal components with standard surface finishes better than 25 Ra. This feature provides the Semiconductor end-user with a precision pressure regulator, economically priced for applications ranging from gas distribution to point of use in the manufacturing tool.

Features & Specifications

- 25 Ra Internal Surface Finish, Std.
- C_V Flow .025, .06, 0.2, and 0.5
- 316L SS Body, Cap, Internals
- Male, Female or Internally Machined VCR Compatible Ports
- 1×10^{-9} atm cc/sec, Inboard Leak Spec

Applications

- Bulk Inert Gas Distribution
- Diffusion Furnaces
- Epitaxial Reactors
- Specialty Gas Distribution
- Manufacturing Tool

Options

- Wetted Materials for Corrosive Service Hastelloy

405 Centura Court
PO Box 4866
Spartanburg, SC 29303
tel 864.574.7966
fax 864.587.5608
www.goreg.com
sales@goreg.com

UPR-1
Precision Pressure Regulator

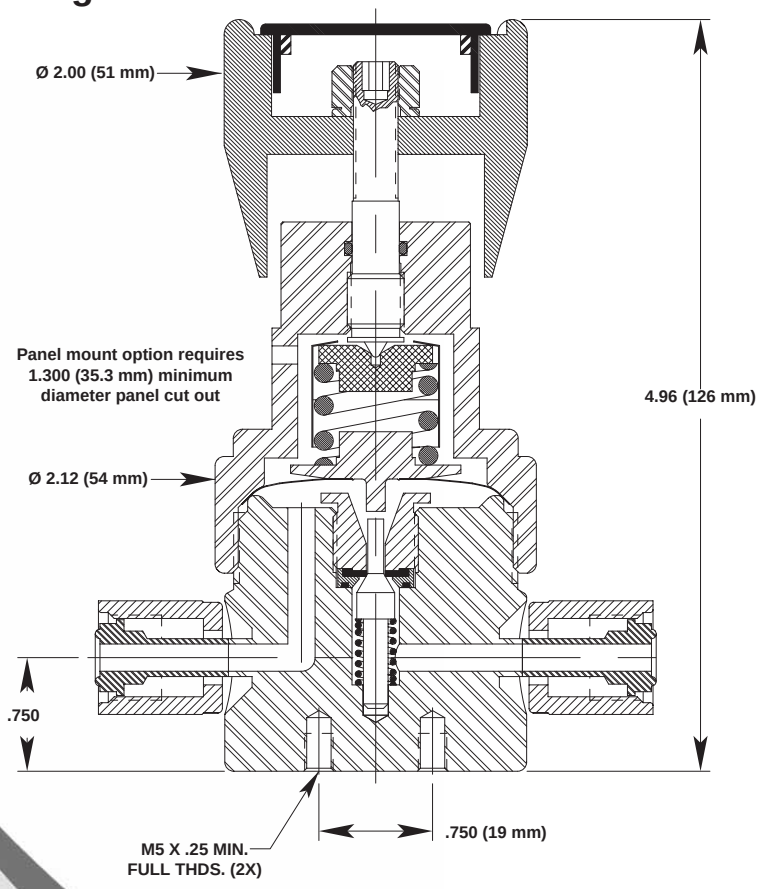
How to Order
See page 7 for standard configurations. For additional configurations consult the factory.
See page 10 for port locations.

Maximum Temperature & Operating Inlet Pressures

Seat Material	Maximum Temperature*	@	Maximum Operating Inlet Pressure
Tefzel®	150° F (66° C)	@	3600 pisG (24.82 MPa)
High Density Teflon®	150° F (66° C)	@	3600 psiG (24.82 MPa)
PCTFE (formerly Kel-F 81)	175° F (80° C)	@	6000 psiG (41.37 MPa)
Polyimide	500° F (260° C)	@	3600 psig (24.82 MPa)
	175° F (80° C)	@	6000 psiG (41.37 MPa)
PEEK	500° F (260° C)	@	3600 psiG (24.82 MPa)
	175° F (80° C)	@	6000 psiG (41.37 MPa)

*Temperatures in excess of 175° F (80° C) require the use of a metal knob or the tamper proof option.
Tefzel® and Teflon® are registered trademarks of Dupont.

Outline and Mounting Dimensions



For flow curve information go to www.goreg.com/flow_UPR1.htm

UPR-1 Series - Pressure Reducing Regulator

Material of Body

1	SS 316L, 3.70 End to End (1/4" VCR Only, See O&MD for Other End to End Dimensions)
2	Hastelloy C, 3.70 End to End (1/4" VCR Only, See O&MD for Other End to End Dimensions)
3	SS 316L, 4.12 End to End (1/4" VCR Only, See O&MD for Other End to End Dimensions)

Port Configuration (Ref. Dwg. 102191)

A

Process & Gauge port

1	1/4" FVCR Process Ports, 1/4" FVCR Gauge Ports
2	1/4" FVCR Process Ports, 1/4" Swivel MVCR Gauge Ports
3	1/4" FVCR Process Ports, 1/4" IVCR Gauge Ports
4	1/4" Swivel MVCR Process Ports, 1/4" FVCR Gauge Ports
5	1/4" Swivel MVCR Process Ports, 1/4" Swivel MVCR Gauge Ports
9	1/4" IVCR Process Ports, 1/4" IVCR Gauge Ports
A	3/8" FVCR Process Ports, 1/4" FVCR Gauge Ports
B	3/8" FVCR Process Ports, 1/4" Swivel MVCR Gauge Ports
C	3/8" FVCR Process Ports, 1/4" IVCR Gauge Ports
D	3/8" Swivel MVCR Process Ports, 1/4" FVCR Gauge Ports
E	3/8" Swivel MVCR Process Ports, 1/4" Swivel MVCR Gauge Ports
F	3/8" Swivel MVCR Process Ports, 1/4" IVCR Gauge Ports
G	1/2" FVCR Process Ports, 1/4" FVCR Gauge Ports
H	1/2" FVCR Process Ports, 1/4" Swivel MVCR Gauge Ports
I	1/2" FVCR Process Ports, 1/4" IVCR Gauge Ports
J	1/2" Swivel MVCR Process Ports, 1/4" FVCR Gauge Ports

Surface Finish of Diaphragm Cavity

1	<25 Ra

Seat Material

A	Tefzel
H	PCTFE (formerly Kel-F 81)
Q	PEEK

Flow Coefficient (Cv)

3	0.06
5	0.2
C	0.025

Outlet Range

C	0 - 10 Psig
D	0 - 25 Psig
E	0 - 50 Psig
G	0 - 100 Psig
I	0 - 250 Psig
J	0 - 500 Psig

Diaphragm Type

1	Facing / Metal Backing
4	Vacuum Assist Spring

Diaphragm Material

1	Teflon / SS
6	Tefzel Ring / SS
0	Teflon / Hastelloy C

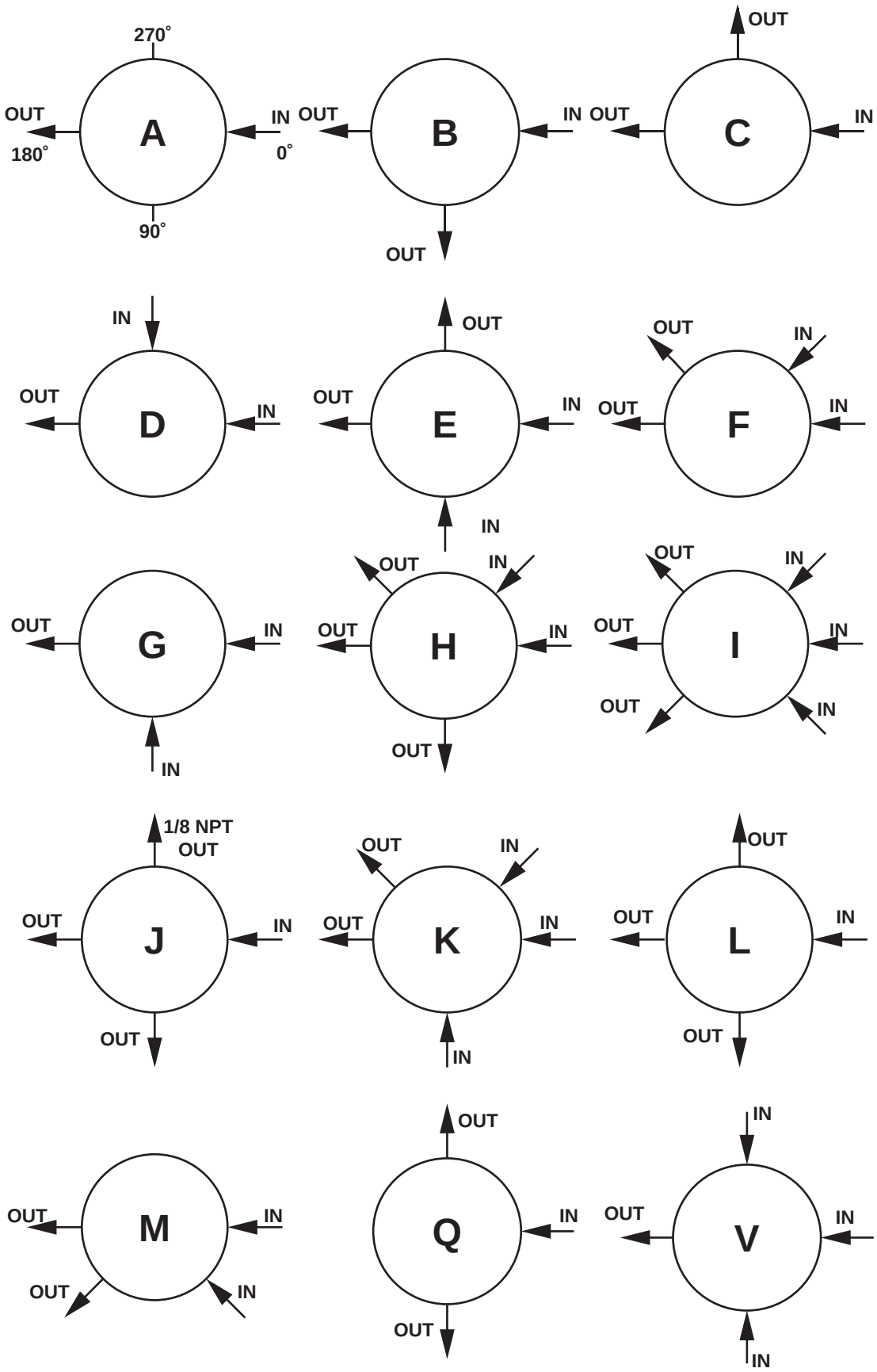
Cap Assembly

1	Standard, S.S.
4	Panel Mount, S.S.
7	Captured Vent, S.S.

U P R 1 -

Material	Port Config.	Port Style	Cavity Finish	Seat Material	Flow (Cv)	Control Range	Diaphragm Type	Diaphragm Material	Cap Assembly

PORT LOCATIONS (PRECISION PRESSURE REGULATOR)



LOCATION OF PORTS FROM TOP VIEW