GO REGULATOR

UPR-7

High Flow Precision Pressure Regulator

The high flow coefficient of the UPR-7 provides the user with a high purity pressure regulator exhibiting very low droop characteristics. The combination of high flow and low droop makes the UPR-7 ideally suited for bulk gas distribution applications. The Model UPR-7 features fully electropolished 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.
- High Flow, C_V 1.1
- Low Droop Characteristics
- 316L SS Body, Cap, Internals
- Male, Female or Internally Machined VCR Compatible Ports
- 1 x 10^{-9} atm cc/sec, Inboard Leak Spec

Applications

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

Options

- Wetted Materials for Corrosive Service Hastelloy, Monel

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UPR-7

High Flow Precision Pressure Regulator

How to Order

See page 3 for standard configurations. For additional configurations, consult the factory.
See page 4 for port locations.

Maximum Temperature & Operating Inlet Pressures

Up to 100 psig Outlet Pressure			
Seat Material	**Maximum Temperature***	**@**	**Maximum Operating Inlet Pressure**
Teflon®	150° F (66° C)	@	1000 psiG (6.90 MPa)
Tefzel ®	175° F (80° C)	@	3600 psiG (24.82 MPa)
PCTFE (formerly Kel-F 81®)	175° F (80° C)	@	3600 psiG (24.82 MPa)
PEEK	250° F (121° C)	@	3600 psiG (24.82 MPa)
Viton®	250° F (121° C)	@	300 psiG (2.07 MPa)
Kalrez®	250° F (121° C)	@	300 psiG (2.07 MPa)

* Temperatures in excess of 175° F (80° C) require the use of a metal knob or the tamper proof option.

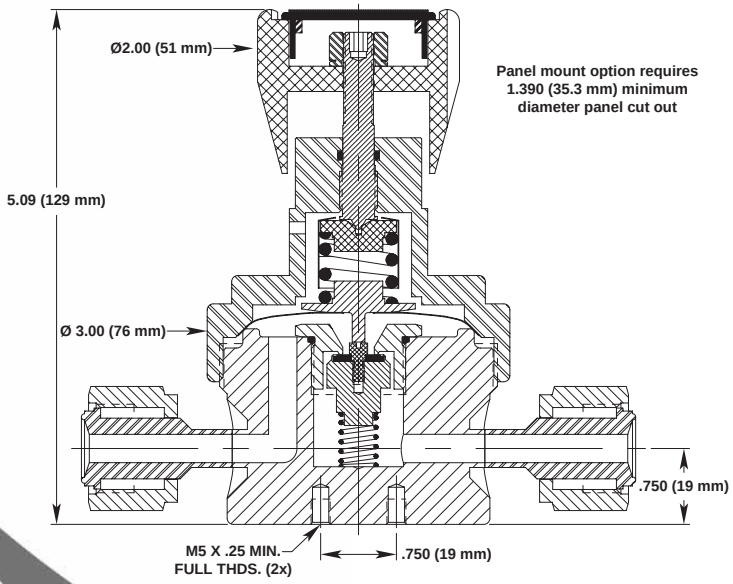
0–250 psig Outlet Pressure (Hand Knob)			
Seat Material	**Maximum Temperature***	**@**	**Maximum Operating Inlet Pressure**
Teflon®	150° F (66° C)	@	500 psiG (3.45 MPa)
Tefzel ®	175° F (80° C)	@	500 psiG (3.45 MPa)
PCTFE (formerly Kel-F 81®)	175° F (80° C)	@	500 psiG (3.45 MPa)
Viton®	250° F (121° C)	@	300 psiG (2.07 MPa)
Kalrez®	250° F (121° C)	@	300 psiG (2.07 MPa)

* Temperatures in excess of 175° F (80° C) require the use of a metal knob or the tamper proof option.

0–250 & 0–500 psig Outlet Pressures (T Handle or Tamper Proof)			
Seat Material	**Maximum Temperature***	**@**	**Maximum Operating Inlet Pressure**
Teflon®	150° F (66° C)	@	1000 psiG (6.90 MPa)
PEEK	250° F (121° C)	@	3600 psiG (24.82 MPa)

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

Outline and Mounting Dimensions



For flow curve information go to www.goreg.com/flow_upr7.htm

UPR-7 Series - Pressure Reducing Regulator

Material of Body

1	SS 316L
2	Hastelloy C

Port Configuration (see page 4)

A	

Process & Gauge port

3	1/4" FVCR Process Ports, 1/4" IVCR Gauge Ports
4	1/4" Swivel MVCR Process Ports, 1/4" FVCR Gauge Ports
7	1/4" IVCR Process Ports, 1/4" FVCR Gauge Ports
A	3/8" FVCR Process Ports, 1/4" FVCR Gauge Ports
D	3/8" Swivel MVCR Process Ports, 1/4" FVCR Gauge Ports
G	1/2" FVCR Process Ports, 1/4" FVCR 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
M	3/4" FVCR Process Ports, 1/4" FVCR Gauge Ports
N	3/4" Swivel MVCR Process Ports, 1/4" Swivel MVCR Gauge Ports

Surface Finish of Diaphragm Cavity

1	<25 Ra

Seat Material

A	Tefzel
D	Viton (300 Psig Max. Inlet)
I	Teflon
H	PCTFE (formerly Kel-F 81)
K	Kalrez (300 Psig Max. Inlet) (Use Alt. Price Column with 0.2 Cv)
Q	PEEK

Flow Coefficient (Cv)

5	0.2 (Use Alt. Price Column with Viton or Kalrez seat)
8	1.1
H	0.5

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	Standard

Diaphragm Facing / Backing

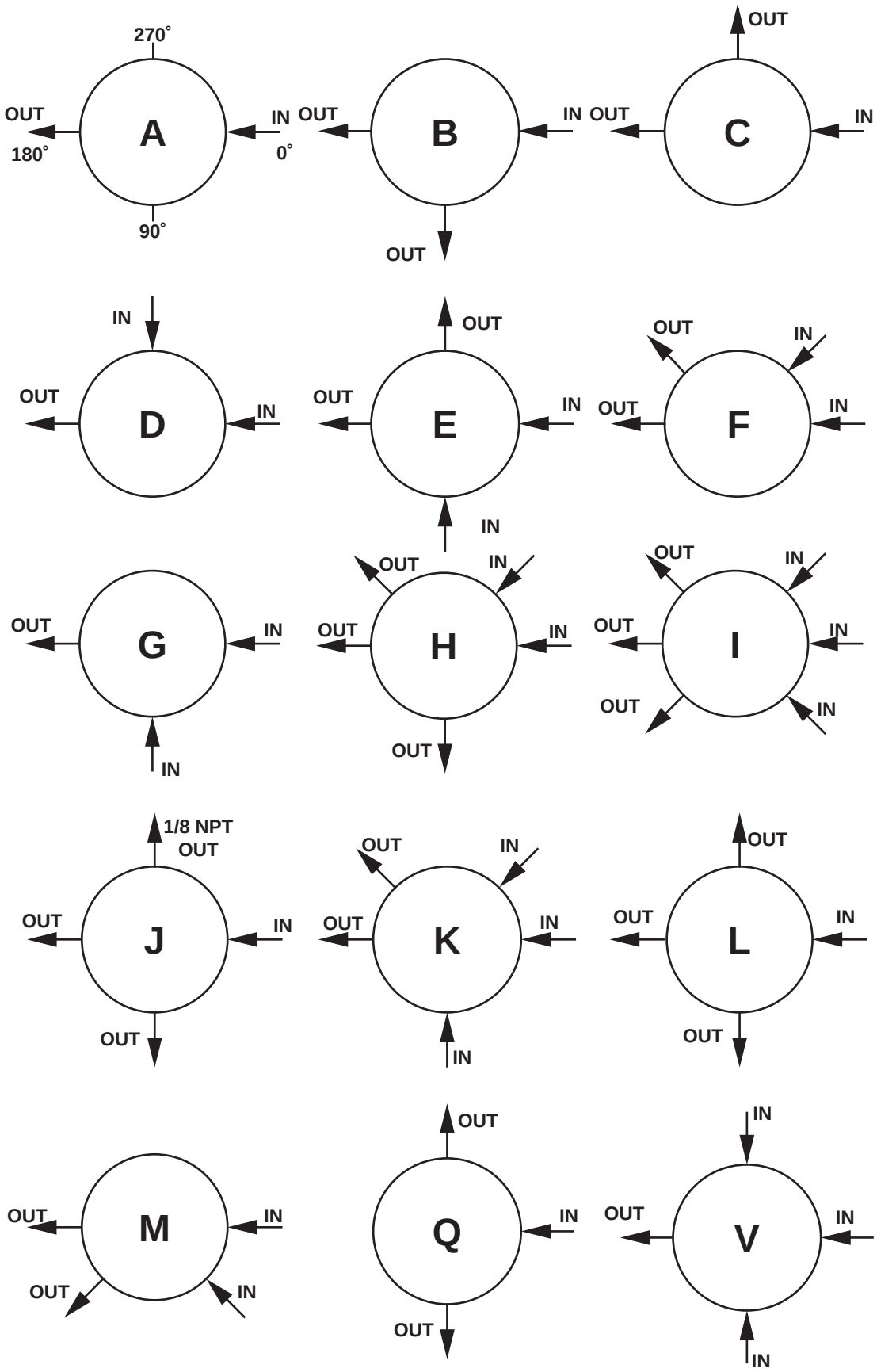
Dia Mat'l	
1	Teflon / SS
2	Teflon / Viton
6	Tefzel Ring / SS
0	Teflon / Hastelloy C

Cap Assembly

1	Standard, S.S.
2	T-Handle, S.S.
7	Captured Vent, S.S.
8	Tamper Proof, S.S.

U P R 7 -										
	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