# **DESCRIPTION**

The R-K DPR series diaphragm type no lube fluid pressure regulator valve is designed to be more sensitive to pressure changes while protecting piping systems. This compact valve also provides excellent flow rates at low range settings. The adjustable screw and lock nut makes it easy to convert varying upstream pressure into accurate pre-set downstream pressure. Outlet pressure should be adjusted in a closed loop system within a range of 5 to 100 PSIG.

This pressure-reducing valve is designed so there is no metal contact with the fluid. It is ideally suited for ultra-pure and highly corrosive systems that require additional pressure protection.

# R-K DPR SERIES

DIAPHRAGM PRESSURE REGULATOR



## **KEY FEATURES**

- Chemical isolation: Stainless steel spring is totally isolated from the fluid chamber
- No metal contact: Designed so no metal contacts the fluid
- Chemical compatibility: Suitable for harsh chemicals, DI water, and high purity applications
- High sensitivity: Designed to be more sensitive to pressure changes while protecting downstream systems
- Excellent flow control: Provides superior flow ratios over a wide pressure range
- Versatile applications: Suitable for DI water and other ultra pure applications
- Precision adjustment: Adjustable screw and lock-nut system for precise pressure setting

## **VALVE BODY MATERIALS:**

- PVC Type 1, Grade 1
- Polypropylene
- PVDF
- Teflon

#### Seal:

- EPDM
- VITON
- KALREZ

# **SIZES & PORTING**

Valve Sizes: ¼", ½", ¾", 1.0", 1.5", 2.0"

**Port Types:** 

1.5" to 1" valves: FNPT 1.5" to 2" valves: MPT All valves are fully ported.

**Mounting:** 

(4) 1/4"-20 tapped holes for a standard machined valve body (1/4" to 1.00")



# PRESSURE & TEMPERATURE RATINGS:

**Upstream Pressure:** 

Vacuum to 150 PSIG.

Regulated pressure: 5 to 100 PSIG,

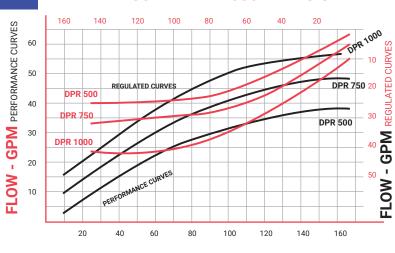
1-100PSIG(1/4" only)

#### **Temperature Range**

- 0°F to 140°F for PVC.
- 0°F to 180°F for POLYPRO.
- 0°F to 280°F for PVDF.
- 0°F to 340°F for TEFLON.

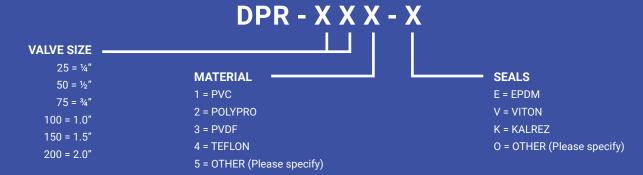
# ENGINEERING & PERFORMANCE DATA

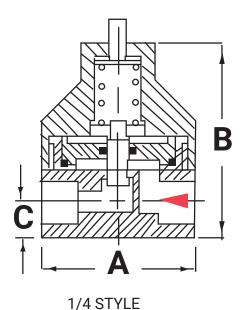
#### **REGULATED PRESSURE - PSIG**



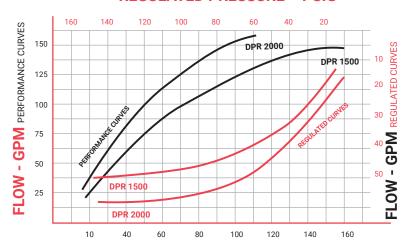
**UPSTREAM PRESSURE - PSIG** 

The chart below will specify R - K standard valves regarding valve size, valve material, and seal material. For special orders, please consult the factory for pricing and delivery information.





#### **REGULATED PRESSURE - PSIG**



#### **UPSTREAM PRESSURE - PSIG**

#### **DIMENSIONAL DATA**

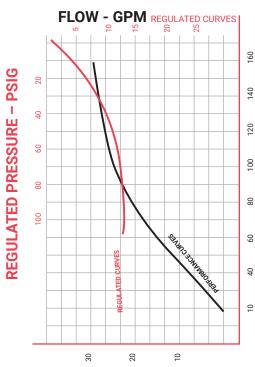
**DIMENSIONS IN INCHES** 

Valve Size	Ports	Α	В	С	Cv
1/4"	FNPT	1.6	2.1	0.39	0.72
1/2"	FNPT	3	4.2	0.7	2.85
3/4"	FNPT	3.5	4.9	0.9	4.67
1.0"	FNPT	4	5.4	1.1	6.84
1.5"	MPT	5	8	1.5	16.6*
2.0"	MPT	6	9	1.7	22.1*

(\*) Cv value @ 150 GPM

# **NOTES**

- Performance curves show the flow rate of DPR valves with piston seal fully open. Regulated pressure indicates the approximate DPR valves at the points of pre-set downstream pressures.
- Test data was performed with 68°F water, and 100 PSIG maximum pressure.
- These performance curves will be changed with higher viscosity liquid and/ or higher temperature.
- Consult your local sales rep or manufacturer directly for custom products or special applications.



FLOW - GPM PERFORMANCE CURVES
For 1/4 Valve only