



VDBPR Series

Back Pressure Regulator

Catalog No VDBPR-1
Sep. 2010



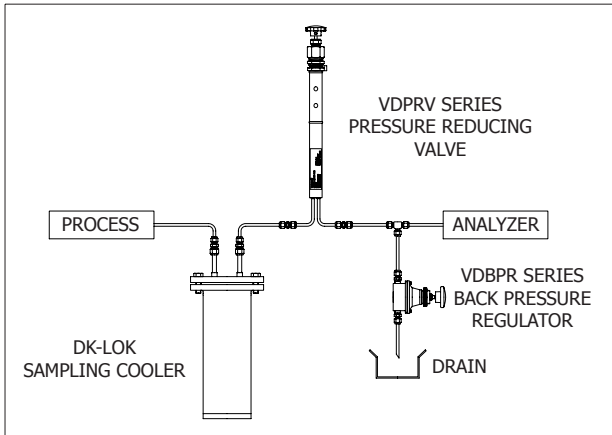
Features

- Designed for accurate regulation under low flow conditions.
- Diaphragm seal kit is replacement part.
- Handle and panel mounting type is standard.
- Various spring ranges are available.
- Fail safe relief function.

Technical Data

- Working Pressure 650 psig (44.8 bar)
- Temperature Range -20 to 150°F (-29 to 66°C)
- Back Pressure Range 0 to 5, 15, 25, 35, 50 and 125 psig
- End Connection Female NPT 1/4"

Application and Operation



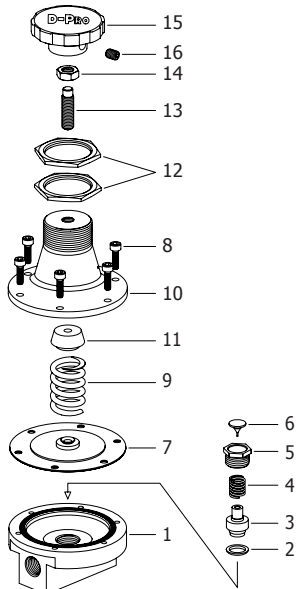
Application

- DK-LOK Back Pressure Regulator(VDBPR) is used to maintain a set pressure on upstream of the VDBPR.
- Applicable fluid is gas, vapor or other liquid.
- Applicable to chemical analysis of water and steam sampling system.

Operation

- In the general operation, there always be a little flow from the outlet.
- If the back pressure rises above the set pressure, the diaphragm kit is lifted allowing the plug to open.
- The over pressure flows through the exhaust port until the back pressure is reduced to the set pressure.

Materials of Construction

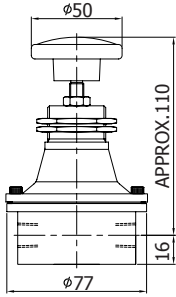


Description	Material	
	Stainless Steel	Brass
1. Body	ASTM A351 CF8M	Brass
2. Body Seat	PTFE	
3. Nozzle	ASTM A479/A276 TYPE316	
4. Plug spring	Stainless Steel 302	
5. Nozzle Retaining Nut	ASTM A479/A276 TYPE316	
6. Plug	ASTM A479/A276 TYPE316	
7. Diaphragm Assembly	Refer to Replacement Parts	
8. Bolts(6)	Stainless Steel	
9. Range Spring	Stainless Steel 302	
10. Bonnet	Aluminum	
11. Spring Plug	Brass	
12. Panel Nuts(2)	Stainless Steel	
13. Handle Stem	ASTM A479/A276 TYPE316	
14. Lock Nut	Stainless Steel	
15. Handle	Nylon with Brass Insert	
16. Set Screw	Stainless Steel	

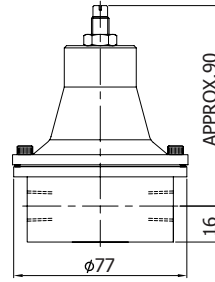
* Wetted parts are listed in blue.

Ordering Information

● Handle & Panel Mounting Type



● " - (Minus)" Groove & No Panel Mounting Type

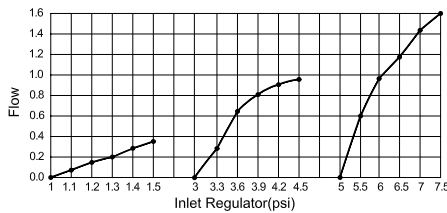


VDBPR - A - 4N - T - S
 ① ② ③ ④ ⑤

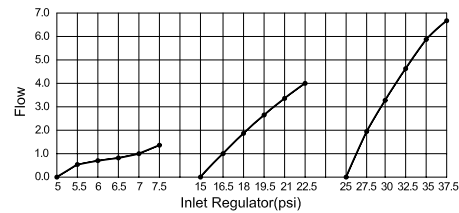
① Title	② Spring Range	③ End Connection	④ Type	⑤ Body Material
DK-LOK Back Pressure Regulator	A: 0 to 5 psig B: 0 to 25 psig C: 0 to 50 psig D: 0 to 125 psig	4N: Female NPT 1/4"	Nil: Handle & Panel Mounting T: " - " Groove	S: Stainless Steel B: Brass

Flow Characteristics

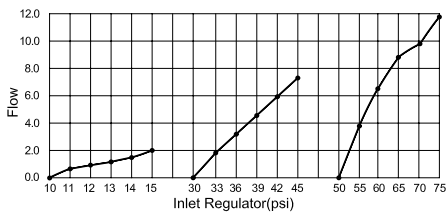
● " A " Spring : VDBPR 0 TO 5 PSIG



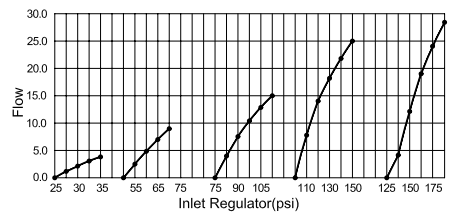
● " B " Spring : VDBPR 0 TO 25 PSIG



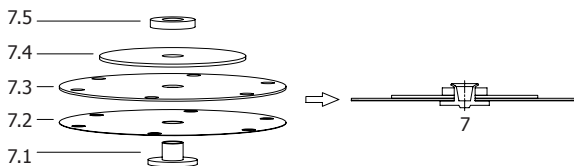
● " C " Spring : VDBPR 0 TO 50 PSIG



● " D " Spring : VDBPR 0 TO 125 PSIG



Replacement Parts



Part No.	No.	Description	Material
VDBPR-DIA	7.1	Rivet	Stainless Steel
	7.2	Packing Plate	PTFE
	7.3	Rubber Seat	Viton
	7.4	Rivet Plate	Brass
	7.5	Rivet Gland	Stainless Steel

Factory Test

Every back pressure regulator is factory tested for set pressure. The test is to determine if the valve is relieving prior to reaching the desired set pressure. The test will also confirm the valve is relieving pressure beyond the desired set pressure as well.

Cleaning

Every back pressure regulator is cleaned and packaged in accordance with the requirements of our cleaning standard of DC-01.

Safe Valve Selection

The selection of a valve for any application or system design must be considered to ensure safe performance. Valve function, valve rating, material compatibility, proper installation, operation and maintenance remain the sole responsibility of the system of the system designer and the user. Dk Tech accepts no liability for any improper selection, installation, operation or maintenance.