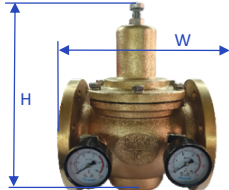
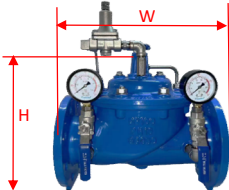


Comparison Between Direct-operated, Diaphragm Type Pressure Reducing Valve, Pilot-operated Pressure Reducing Valve



Performance Comparison							
Classification	Photo	Size Selection	Working Conditions	Advantages	Disadvantages	Sound	Working Principle
Diaphragm type pressure reducing valve		PRVCRN080F PRVCRN100F PRVCRN150F	Designed for high-load applications requiring precise pressure regulation.	Compact design with sensitive pressure regulation and an integrated filter screen for easy maintenance and cleaning during long-term operation.	Limited outlet pressure adjustment range for fine control. (0.1-0.3Mpa)	Low operating noise.	The valve opening is directly controlled by the expansion and contraction of the spring, acting directly on the diaphragm.
Pilot-operated reducing valves		PRVDIN080F (Under development) PRVDIN100F PRVDIN150F	Designed for high-load applications requiring precise pressure regulation.	Maintains tight pressure control; when flow or inlet pressure fluctuates, the outlet pressure remains stable with minimal deviation from the setpoint. Compared to direct-acting types, it offers a wider available flow range.	Larger size and heavier weight, with a more complex structure compared to direct-acting types.	Low operating noise.	The regulating spring directly transmits the pressure setting force to the pilot valve, which is smaller than the main valve.

Data Comparison						
Technical Parameter	DN080		DN100		DN150	
	PRVCRN080F	PRVDIN080F	PRVCRN100F	PRVDIN100F	PRVCRN150FH	PRVDIN150F
Length L (MM)	225	Under development	250	350	308	480
Height H (MM)	370		400	390	540	490
Weight (KG)	19.5		29	33	61.7	76
Installation direction	Bonnet up horizontal / or vertical installation	Bonnet up horizontal / or vertical installation	Bonnet up horizontal / or vertical installation	Bonnet up horizontal / or vertical installation	Bonnet up horizontal installation	Bonnet up horizontal / or vertical installation
working pressure	0.1 ~ 1.6 Mpa / 14.5 ~ 232 Psi	0 ~ 1.6 Mpa / 0 ~ 232 Psi	0.1 ~ 1.6 Mpa / 14.5 ~ 232 Psi	0 ~ 1.6 Mpa / 0 ~ 232 Psi	0.1 ~ 1.6 Mpa / 14.5 ~ 232 Psi	0 ~ 1.6 Mpa / 0 ~ 232 Psi
working temperature	0°C-80°C	0°C-80°C	0°C-80°C	0°C-80°C	0°C-80°C	0°C-80°C
Outlet adjustable pressure	0.1 ~ 0.3 Mpa / 14.5 ~ 43.5 Psi	0.1 ~ 0.5 Mpa / 14.5 ~ 72.5 Psi	0.1 ~ 0.3 Mpa / 14.5 ~ 43.5 Psi	0.1 ~ 0.5 Mpa / 14.5 ~ 72.5 Psi	0.1 ~ 0.3 Mpa / 14.5 ~ 43.5 Psi	0.1 ~ 0.5 Mpa / 14.5 ~ 72.5 Psi
Photo display						

直动式减压阀、膜片式减压阀、先导式减压阀对比



产品性能对比							
分类	产品照片	尺寸选择	适合工况	优点	缺点	声音	工作原理
膜片式减压阀		PRVCRN100F	使用与高负载和需要精密控制压力	结构紧凑，调压灵敏，自带过滤网后期维护清洗方便	出口可调节压力范围小（0.1-0.3Mpa）	工作声音小	阀的开度直接由弹簧的伸缩决定，弹簧直接作用于膜片
先导式减压阀		PRVDIN080F (研发中) PRVDIN100F PRVDIN150F	使用与高负载和需要精密控制压力	紧密控制，当流量或者一次压力波动时不会使二次压力偏离设定压力（偏差）。与直接作用式相比，可使用的流量范围更广	体积大、产品重量重，比直接作用式结构更复杂	工作声音小	调节弹簧直接传递压力设定力到与比主阀小的先导阀上

产品数据对比						
型号(尺寸) 技术参数	DN080		DN100		DN150	
	PRVCRN080F	PRVDIN080F	PRVCRN100F	PRVDIN100F	PRVCRN150FH	PRVDIN150F
长度L (MM)	225	研发中	250	350	308	480
高度H (MM)	370		400	390	540	490
重量 (KG)	19.5		29	33	61.7	76
安装方向	阀盖朝上水平安装或垂直安装	阀盖朝上水平安装或垂直安装	阀盖朝上水平安装	阀盖朝上水平安装或垂直安装	阀盖朝上水平安装	阀盖朝上水平安装或垂直安装
工作压力	0.1 ~ 1.6 Mpa / 14.5 ~ 232 Psi	0 ~ 1.6 Mpa / 0 ~ 232 Psi	0.1 ~ 1.6 Mpa / 14.5 ~ 232 Psi	0 ~ 1.6 Mpa / 0 ~ 232 Psi	0.1 ~ 1.6 Mpa / 14.5 ~ 232 Psi	0 ~ 1.6 Mpa / 0 ~ 232 Psi
工作温度	0°C-80°C	0°C-80°C	0°C-80°C	0°C-80°C	0°C-80°C	0°C-80°C
出口可调压力	0.1 ~ 0.3 Mpa / 14.5 ~ 43.5 Psi	0.1 ~ 0.5 Mpa / 14.5 ~ 72.5 Psi	0.1 ~ 0.3 Mpa / 14.5 ~ 43.5 Psi	0.1 ~ 0.5 Mpa / 14.5 ~ 72.5 Psi	0.1 ~ 0.3 Mpa / 14.5 ~ 43.5 Psi	0.1 ~ 0.5 Mpa / 14.5 ~ 72.5 Psi
照片展示	