











# Comparison Between Direct-acting And Pilot-operated Pressure Reducing Valve

Performance Comparison							
Classification	Photo	Size Selection	Working Conditions	Advantages	Disadvantages	Sound	Working Principle
Direct-acting pressure reducing valve		PRVCRN080 PRVCRN100F PRVCRN150FH	It is used for low load and does not require precise pressure control	Compact structure, light weight and easy installation	The flow range is limited and can only be used under low flow conditions	Loud working sound	The opening of the valve is directly determined by the expansion and contraction of the adjusting spring.
Pilot-operated reducing valves		PRVDIN080F (Under development) PRVDIN100F PRVDIN150F	Use with high load and need precise control pressure	Tightly controlled, when the flow or primary pressure fluctuates, the secondary pressure will not deviate from the set pressure (deviation). Compared with the direct-acting type, the available flow range is wider.	Large volume, heavy product weight, more complex than direct acting structure	Low working sound	The regulating spring directly transmits the pressure setting force to the pilot valve smaller than the main valve.

Data Comparison						
SKU ( Size )	DN080		DN100		DN150	
	PRVCRN080F	PRVDIN080F	PRVCRN100F	PRVDIN100F	PRVCRN150FH	PRVDIN150F
Length L (MM)	212	Under development	236	350	240	480
Height H (MM)	313		348.5	280	285	340
Weight (KG)	15.3		20.7	33	74	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	0.3 ~ 1.6 Mpa / 43.5 ~ 232 Psi	0 ~ 1.6 Mpa / 0 ~ 232 Psi	0.3 ~ 1.6 Mpa / 43.5 ~ 232 Psi	0 ~ 1.6 Mpa / 0 ~ 232 Psi	0.3 ~ 1.6 Mpa / 43.5 ~ 232 Psi	0 ~ 1.6 Mpa / 0 ~ 232 Psi
working temperature	0°C-70°C	0°C-80°C	0°C-70°C	0°C-80°C	0°C-70°C	0°C-80°C
Outlet adjustable pressure	0.1 ~ 0.5 Mpa / 14.5 ~ 72.5 Psi	0.1 ~ 0.5 Mpa / 14.5 ~ 72.5 Psi	0.1 ~ 0.5 Mpa / 14.5 ~ 72.5 Psi	0.1 ~ 0.5 Mpa / 14.5 ~ 72.5 Psi	0.1 ~ 0.5 Mpa / 14.5 ~ 72.5 Psi	0.1 ~ 0.5 Mpa / 14.5 ~ 72.5 Psi
Photo display						

# 直动式减压阀与先导式减压阀对比



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
直动式减压阀		PRVCRN080 PRVCRN100F PRVCRN150FH	使用于低负载并且不需要精密控制压力	结构紧凑、产品重量轻、便于安装	使用流量范围有限，只能使用于小流量的工况	工作声音大	阀的开度直接由调节弹簧的伸缩决定
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)	212	研发中	236	350	240	480
高度H (MM)	313		348.5	280	285	340
重量 (KG)	15.3		20.7	33	74	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
工作压力	0.3 ~ 1.6 Mpa / 43.5 ~ 232 Psi	0 ~ 1.6 Mpa / 0 ~ 232 Psi	0.3 ~ 1.6 Mpa / 43.5 ~ 232 Psi	0 ~ 1.6 Mpa / 0 ~ 232 Psi	0.3 ~ 1.6 Mpa / 43.5 ~ 232 Psi	0 ~ 1.6 Mpa / 0 ~ 232 Psi
工作温度	0°C-70°C	0°C-80°C	0°C-70°C	0°C-80°C	0°C-70°C	0°C-80°C
出口可调压力	0.1 ~ 0.5 Mpa / 14.5 ~ 72.5 Psi	0.1 ~ 0.5 Mpa / 14.5 ~ 72.5 Psi	0.1 ~ 0.5 Mpa / 14.5 ~ 72.5 Psi	0.1 ~ 0.5 Mpa / 14.5 ~ 72.5 Psi	0.1 ~ 0.5 Mpa / 14.5 ~ 72.5 Psi	0.1 ~ 0.5 Mpa / 14.5 ~ 72.5 Psi
照片展示	