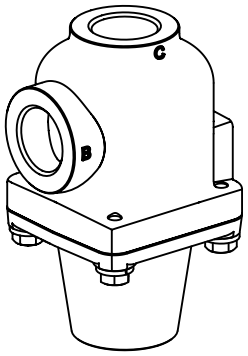
温控阀 Thermostatic Valves

产品系列 Model Series - 25PS



特点及优势 Features and Benefits

- 操作方便 Easy operation
- 自适应调节 Self-actuated
- 结构简单 Simple structure
- 流量范围广 Wide range of flow
- 抗冲击性好 Rugged construction
- 安装位置灵活 Operate in any position
- 阀芯可拆卸更换 Replaceable thermostat
- 控制温度范围广 Wide range of temperature

工作原理 How It Works

温控阀采用石蜡受热膨胀原理，膏状的石蜡在较小的温度范围内具有较高的膨胀率。温控阀芯将根据受热状态推动衬套运动，从而调节进入冷却器的液体流量，最终达到控制液体温度的目标。

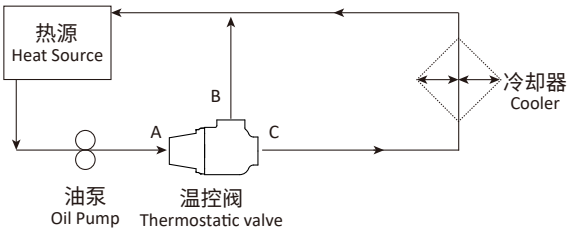
Thermostatic valves utilize the principle of expanding wax, which in the semi-liquid state undergoes large expansion rates within a relatively narrow temperature range. The self-actuated thermostat activates its sleeve, which regulate the flow rate into the cooler, finally keep the liquid at an appropriate temperature.

当温控阀应用于分流系统时，启动时所有液体均不经过冷却器，温控阀通过B口返回系统。当液体温度达到开启温度时，一部分液体将通过C口进入冷却系统。随着液体温度持续上升，进入冷却器的液体量会增多。当温控阀处于全开状态时，所有液体均通过冷却系器。

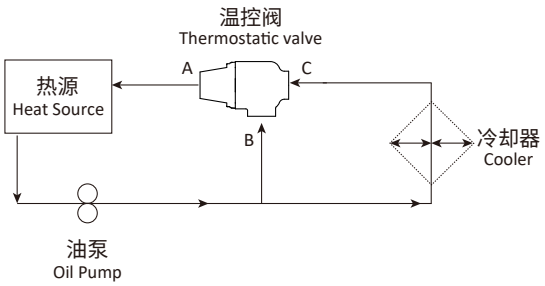
When used in a diverting application, on start-up the total fluid is routed back to the main system by B port. As fluid temperature rises to the open temperature, some fluid is diverted to the cooling system by C port. As fluid temperature continues to increase, more flow is diverted. When the thermostat is in a fully stroked condition, all fluid flow is directed to the cooling system.

温控阀也可应用于混流系统，这时候高温液体经过B口进入温控阀，而低温液体则通过C口进入温控阀，两种不同温度的液体将在温控阀内被调节到设定的温度，最后经过A口进入到应用系统中。

The thermostatic valves may also be used in a mixing application. Hot fluid enters by B port and cold fluid enters by C port, they mixed at A port. The thermostat adjusts flows through B ports and C port to reach the setting temperature, exiting the A port to the system.



分流系统
Diverting System



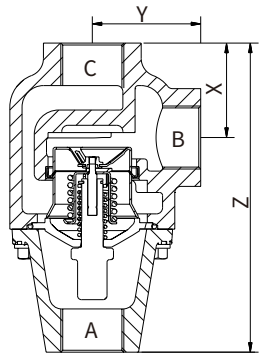
混流系统
Mixing System

■ 产品规格 Specifications

产品系列 Model Series	阀体材质 Body Material	阀门通径 Norminal Diameter	连接方式 Port Connections	主要尺寸(毫米) Principal Dimensions(mm)			阀芯数量 No. of Thermostats
				"X"	"Y"	"Z"	
15PS	A, B, C, S, R	DN15	螺纹 Thread	45	52	152	1
20PS	A, B, C, S, R	DN20	螺纹 Thread	45	52	152	1
25PS	A, B, C, S, R	DN25	螺纹 Thread	45	52	152	1

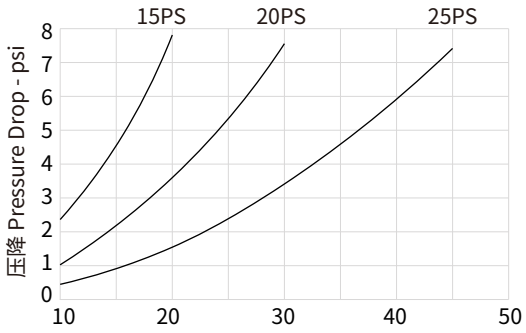
备注 Notes: A=铝 Aluminum, B=铜 Bronze, C=铁 Cast iron, S=钢 Steel, R=不锈钢 Stainless steel

■ 产品尺寸图 Dimensions



25PS系列 | 25PS Series

■ 压降曲线图 Pressure Drop Curve



流量 Flow Rate – US GPM - SAE10@100°F

■ 压力等级及重量 Pressure Ratings and Weights

产品系列 Model Series	工作压力 Working pressure - psi	重量 Weight - lbs
15APS | 20APS | 25APS	150	3.0
15BPS | 20BPS | 25BPS	180	8.5
15CPS | 20CPS | 25CPS	150	6.5
15SPS | 20SPS | 25SPS	670	7.0
15RPS | 20RPS | 25RPS	600	7.0

■ 维修备件 Spare Parts

维修包型号 Service Kit	O型圈 O-ring		阀芯 Thermostat		油封 Lip Seal	
	型号 Part No.	数量 Qty.	型号 Part No.	数量 Qty.	型号 Part No.	数量 Qty.
SK1501-xxx	MF-15-01	1	1501-xxx	1	YF-15-01	1

备注:xxx为控制温度
Notes: xxx is the setting temperature.