## Thermostatic Valves

## Model 2510

## Including:

## Three-Way

## Features and Benefits

- Wide range of temperatures
- Heavy duty
- Self-contained
- Replaceable element
- Non-adjustable
- Rugged construction
- Tamper-proof
- Operate in any position
- Compact


## Compact, reliable temperature control

Fluid Power Energy (FPE) thermostatic valves use the principle of expanding wax, which in the semi-liquid state undergoes large expansion rates within a relatively narrow temperature range. The self-contained element activates a stainless steel sleeve, which directs flow. All FPE thermostatic valves are factory set at predetermined temperatures: no further adjustments are necessary. A wide range of temperatures are available for water and oil temperature control applications.

When used in a diverting application, on start-up the total fluid flow is routed back to the main system. As fluid temperature rises to the control range, some fluid is diverted to the cooling system. 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. FPE thermostatic valves may also be used in a mixing application.

In a mixing application, hot fluid enters the " B " port and colder fluid enters the " C " port. The flows mix and the thermostat adjusts to reach the desired temperature, exiting the "A" port.

Standard FPE thermostatic valve housings are made from aluminium and grey iron castings, however, ductile iron, bronze, steel and stainless steel housings are available.

Available Connections: 125\# FF Flange, 150\# RF Flange, 300\# RF Flange, Navy and Metric Flanges.

Optional features: Manual Override, High Over Temp element, Plated element. Other options available upon request.

## Thermostatic Valves

## Specification

| Model Number | Body Material (*) | Nominal Pipe Size | Principal Dimensions Units - inches (mm) |  |  |  | Max. width in other plane | Flange Drilling |  |  | No. of elements | Approx. shipping weight | Notes for numbered end notes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | "X" | "Y" | "W" | "Z" |  | No. of holes | Dia. of holes | Bolt circle |  |  |  |
| *2510 | A, B, D | $21 / 2^{\prime \prime} 125 \# \text { FF }$ <br> Flange | N/A | $\begin{array}{\|l\|} \hline 5 \\ (127.00) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 10 \\ (254.00) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 61 / 2 \\ (165.10) \\ \hline \end{array}$ | 8 (203.20) | 4 | $\begin{array}{\|l\|} \hline 3 / 4 \\ (19.05) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 51 / 2 \\ (139.70) \\ \hline \end{array}$ | 2 | $\begin{aligned} & \mathrm{A}=47 \#, \mathrm{~B}=54 \#, \\ & \mathrm{D}=47 \# \end{aligned}$ |  |
|  | S, SS | $21 / 2^{\prime \prime} 150 \# \text { RF }$ <br> Flange | N/A | $\begin{array}{\|l\|} \hline 53 / 16 \\ (131.76) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 103 / 8 \\ (263.53) \end{array}$ | $\begin{array}{\|l\|l} \hline 65 / 8 \\ (168.28) \\ \hline \end{array}$ | 8 (203.20) | 4 | $\begin{array}{\|l\|} \hline 3 / 4 \\ (19.05) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 51 / 2 \\ (139.70) \\ \hline \end{array}$ | 2 | S \& SS=51\# |  |
| *2510M | A, B, D | $2 \text { 1/2" } 125 \# \text { FF }$ <br> Flange | N/A | $\begin{array}{\|l\|} \hline 5 \\ (127.00) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 10 \\ (254.00) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 61 / 2 \\ (165.10) \\ \hline \end{array}$ | 8 (203.20) | 4 | $\begin{array}{\|l} \hline 3 / 4 \\ (19.05) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 51 / 2 \\ (139.70) \\ \hline \end{array}$ | 2 | $\begin{aligned} & \mathrm{A}=48 \#, \mathrm{~B}=55 \#, \\ & \mathrm{D}=48 \# \end{aligned}$ | Manual override |
|  | S, SS | $21 / 2^{\prime \prime} 150 \# \text { RF }$ <br> Flange | N/A | $\begin{array}{\|l\|} \hline 53 / 16 \\ (131.76) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 103 / 8 \\ (263.53) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 65 / 8 \\ (168.28) \\ \hline \end{array}$ | 8 (203.20) | 4 | $\begin{array}{\|l\|} \hline 3 / 4 \\ (19.05) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 51 / 2 \\ (139.70) \\ \hline \end{array}$ | 2 | S \& SS=52\# |  |
| *2510X | S, SS | $21 / 2^{\prime \prime} 300 \# \text { RF }$ Flange | N/A | $\begin{array}{\|l\|} \hline 53 / 16 \\ (131.76) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 103 / 8 \\ (263.53) \end{array}$ | $\begin{array}{\|l\|} \hline 65 / 8 \\ (168.28) \\ \hline \end{array}$ | 8 (203.20) | 8 | $\begin{array}{\|l} \hline 7 / 8 \\ (22.23) \end{array}$ | $\begin{array}{\|l\|} \hline 57 / 8 \\ (149.23) \end{array}$ | 2 | S \& SS=59\# |  |
| *2510XM | S, SS | $21 / 2^{\prime \prime} 300$ \# RF Flange | N/A | $\begin{array}{\|l\|} \hline 53 / 16 \\ (131.76) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 103 / 8 \\ (263.53) \end{array}$ | $\begin{array}{\|l} \hline 65 / 8 \\ (168.28) \\ \hline \end{array}$ | 8 (203.20) | 8 | $\begin{array}{\|l} \hline 7 / 8 \\ (22.23) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 57 / 8 \\ (149.23) \\ \hline \end{array}$ | 2 | S \& SS=60\# | Manual override |

${ }^{*}$ Replace * with body material type: A = Cast iron,
$B=$ Bronze, $D=$ Ductile iron, $S=$ Steel, $S S=$ Stainless Steel

| Pressure Ratings |  |
| :--- | :--- |
| Material | PSI |
| A, B, D | 150 |
| S, SS | 275 |
| SX, SSX | 720 |


*2510, *2510X

*2510M, *2510XM

## Flow vs. Pressure Drop



## Thermostatic Valves



## Spare Parts

| Part Number | Description |
| :--- | :--- |
| ${ }^{*} 2510$ | Valve body (*See table for material) |
| ${ }^{*} 2520$ | Valve cover (*See table for material) |
| 2071 | Lip seal |
| $3080-$ C | Gasket |
| 2050 -Temp | Thermostat (Temp to follow dash) |
| 1604 | Hex bolt |
| 1605 | Lock washer |
| 1590 | Nameplate |
| FPE Model 2500 | Replacement kit (includes the following:) |
| 3080C | Gasket |
| (2) 2071 | Lip seal |
| (2) 2050-Temp | Thermostat (Temp to follow dash) |

## Local Distributor / Partner:

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