# **Model 2010**

## **Including:**

### **Three-Way**

2010 2" NPT 2010-1 1 1/2" NPT 2010J24 1 1/2" SAE O-ring

A2010J32 2" SAE 0-ring F2010 2" 125# FF

Flange

SF2010 2" 150# RF

Flange

SF2010X 2" 300# RF

Flange



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 aluminum and grey iron castings, however, ductile iron, bronze, steel and stainless steel housings are available.

Available connections: NPT, SAE 0-ring, 125# FF flange, 150# and 300# RF flange.

Optional features: high over temperature element, plated element. Other options available upon request.



Manufactured by:



### **Features and Benefits**

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

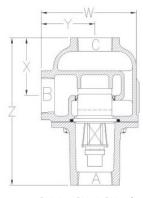


## **Specification**

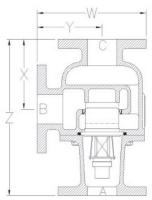
| Model<br>Number | Body<br>Material<br>(*) | Nominal<br>Pipe Size | Principal Dimensions Units - inches (mm) |                     |                     |                    | Max.<br>width in  | Flange Drilling |                  |                   | No. of elements | Approx.<br>shipping weight      |
|-----------------|-------------------------|----------------------|--|---------------------|---------------------|--------------------|-------------------|-----------------|------------------|-------------------|-----------------|---------------------------------|
|                 |                         |                      | "X"                                      | "Y"                 | "W"                 | "Z"                | other<br>plane    | No. of<br>holes | Dia. of<br>holes | Bolt<br>circle    |                 | 0                               |
| *2010-1         | A, B, D,<br>S, SS       | 1 1/2" NPT           | 3 13/16<br>(96.84)                       | 3 9/16<br>(90.49)   | 6 5/16<br>(160.34)  | 9 3/4<br>(247.65)  | 5 1/2<br>(139.70) | N/A             | N/A              | N/A               | 1               | A & D=21#, B=24#,<br>S & SS=23# |
| *2010           | A, B, D,<br>S, SS       | 2" NPT               | 3 13/16<br>(96.84)                       | 3 9/16<br>(90.49)   | 6 5/16<br>(160.34)  | 9 3/4<br>(247.65)  | 5 1/2<br>(139.70) | N/A             | N/A              | N/A               | 1               | A & D=21#, B=24#,<br>S & SS=23# |
| *2010J24        | A, B, D,<br>S, SS       | SAE 24<br>1 1/2"     | 3 13/16<br>(96.84)                       | 3 9/16<br>(90.49)   | 6 5/16<br>(160.34)  | 9 3/4<br>(247.54)  | 5 1/2<br>(139.70) | N/A             | N/A              | N/A               | 1               | A & D=21#, B=24#,<br>S & SS=23# |
| *2010J32        | A, B, D,<br>S, SS       | SAE 32<br>2"         | 3 13/16<br>(96.84)                       | 3 9/16<br>(90.49)   | 6 5/16<br>(160.34)  | 9 3/4<br>(247.65)  | 5 1/2<br>(139.70) | N/A             | N/A              | N/A               | 1               | A & D=21#, B=24#,<br>S & SS=23# |
| *F2010          | A, B, D                 | 2" 125#<br>FF flange | 4 3/4<br>(120.65)                        | 4 9/16<br>(115.89)  | 7 9/16<br>(192.09)  | 10 5/8<br>(269.88  | 6<br>(152.40)     | 4               | 3/4<br>(19.05)   | 4 3/4<br>(120.65) | 1               | A=32#,<br>B=40#,<br>D=32#       |
|                 | S, SS                   | 2" 150#<br>FF flange | 4 7/8<br>(123.83)                        | 4 9/16<br>(115.89)  | 7 9/16<br>(192.09)  | 10 7/8<br>(276.23) | 6<br>(152.40)     | 4               | 3/4<br>(19.05)   | 4 3/4<br>(120.65) | 1               | S & SS=34#                      |
| *F2010X         | S, SS                   | 2" 300#<br>RF flange | 5<br>(127.00)                            | 4 11/16<br>(119.06) | 7 15/16<br>(201.61) | 11 1/8<br>(282.58) | 6 1/2<br>(165.10) | 8               | 3/4<br>(19.05)   | 5<br>(127.00)     | 1               | S & SS=36#                      |

\* Replace \* with body material type: A= Cast iron, B = Bronze, D = Ductile iron, S = Steel, SS = stainless steel

| Pressure Ratings |     |  |  |  |  |
|------------------|-----|--|--|--|--|
| Material         | PSI |  |  |  |  |
| A, B             | 150 |  |  |  |  |
| D                | 250 |  |  |  |  |
| S, SS            | 500 |  |  |  |  |
| SF, SSF          | 275 |  |  |  |  |
| SFX, SSFX        | 720 |  |  |  |  |

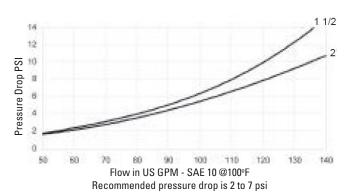






\*F2010, \*F2010X

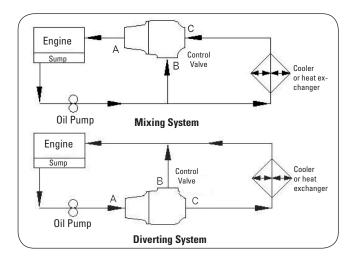
### Flow vs. Pressure Drop





# **Thermostatic Valves**

Model 2010



#### **Spare Parts**

| Part Number  | Description                               |  |  |  |  |
|--|---|--|--|--|--|
| *2010  | Valve Body (*See table for material)      |  |  |  |  |
| *2020  | Valve cover (*See table for material)     |  |  |  |  |
| 1570**   | O-ring (Standard material is Buna-N)      |  |  |  |  |
| 2071   | Lip seal                                  |  |  |  |  |
| 2050-Temp  | Thermostat (Temp to follow dash)          |  |  |  |  |
| 1600   | Hex bolt                                  |  |  |  |  |
| 1601   | Lock washer                               |  |  |  |  |
| FPE Model 2000**   | Replacement kit (includes the following:) |  |  |  |  |
| 1570**   | Buna O-ring (Standard material is Buna-N) |  |  |  |  |
| 2071   | Lip seal                                  |  |  |  |  |
| 2050-Temp  | Thermostat (Temp to follow dash)          |  |  |  |  |
| (For Viton* (V) or Neoprene (E) 0-ring material, replace ** with V or E) Viton® is a registered trademark of Dupont Dow Elastomers |   |  |  |  |  |

### **Local Distributor / Partner:**

