

# Contractor Service Tips

A yellow starburst graphic with the text "Tip Card 18" inside.

Tip Card  
18

## Quick Facts - Bi-Flow TXV

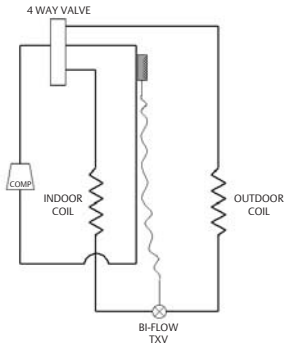
**Q: Does an HFES (or other balanced port TXV) bi-flow for use on a heat pump system?**

The HFES series (or other balanced port valve) will meter the flow of refrigerant in either direction. The sensing bulb in such a case would have to be located on a common suction line such as the center tube of a 4-way valve (see figure 1).

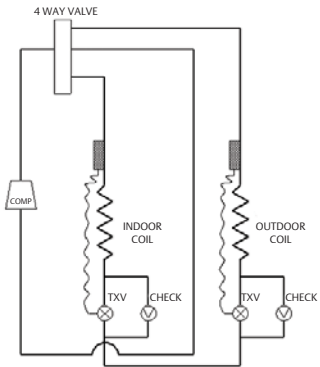
Also, for such a system to work properly, the system would have to be 'close coupled,' meaning that the evaporator and condenser would have to be physically located in close proximity to one another such as in a packaged system.

For "split" type systems, the long length of tubing between the TXV and the coils makes it impractical to utilize an approach of this type.

For such systems, two expansion valves must be used; one on the indoor and one on the outdoor coil. Check valves must be installed around each of the TXVs to allow flow around the valve when operating in the reverse direction (see figure 2).



**FIGURE 1 - PACKAGED SYSTEM**



**FIGURE 2 - SPLIT SYSTEM**