

**APPLICATION
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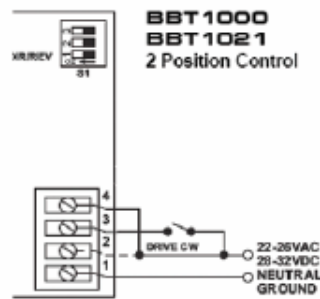
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Using A Unimizer For Heat Pump Applications

Heat pump applications require a quick opening actuated control valve to protect the compressor from failure – most manufacturers recommend that the control valve deliver chilled water to the compressor within twenty seconds or less to prevent overheating. Griswold Controls' Unimizer with a Neptronic 20-second actuator meets the requirement, and is a perfect choice for this application. Some engineers also design these systems with failsafe actuators so that when the actuator has power it opens and when the power is removed the actuator closes. The failsafe option almost doubles the cost of the actuator, dramatically affecting your competitiveness on a quote.

As an example, a failsafe actuator has a list price of \$305, whereas a non failsafe one has a list price of \$169. This discrepancy can be even greater if you are quoting against a solenoid-type product. One way to work around the failsafe option is by using special wiring configuration.



As per the diagram, wire 1 and wire 4 go to the control transformer on the actual heat pump; wire 3 goes to both the compressor contactor and also through a relay to open the valve. Connecting a relay to wire 3 has the same effect as using a failsafe actuator, but with a significant cost savings.

To further discuss this application please contact Griswold Controls at (949) 559-6000.



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