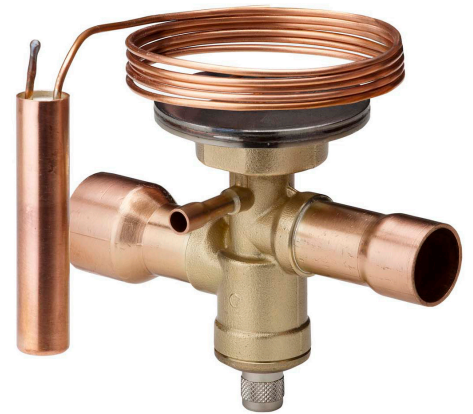


# Thermo™ - Expansion Valves

## Series TX7

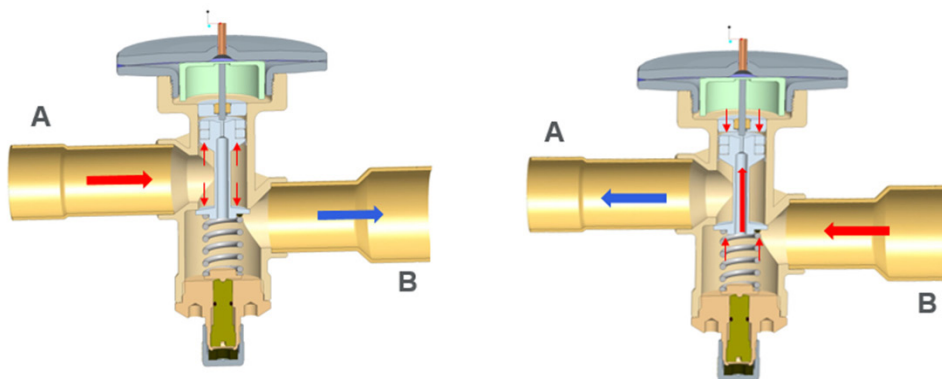
Many years of experience and deep expertise with mechanical expansion valves enables Emerson Climate Technologies to continuously and successfully expand its product offering with new features and performance in order to meet today's expectations of high-efficiency system requirements.

Alco Controls' series of Thermo™-Expansion Valves are designed predominantly for A/C, heat pumps, close control and industrial process cooling applications. The valves are manufactured with superior laser welding technology and are the ideal choice for applications requiring hermetic / compact size.



### Features

- 7 sizes up to 180 kW R410A / 270 kW R32 ( $T_e=+4^{\circ}\text{C}$  /  $T_c=+38^{\circ}\text{C}$ )
- MWP (PS): 46 bar, Test pressure PT: 50.6 bar
- Refrigerants: R410A, R32, R134a, R407C, R22, R450A and R513A
- The 65 mm power element diameter in conjunction with balanced port construction enables excellent partial load performance down to 20-25% at stable superheat
  - Released for systems with digital scrolls, step less screw compressors and frequency drive variable speed compressors
- Laser welded stainless steel power element with a special diaphragm profile provides life expectancy against high pressure during reversed flow via external equalizer
- Balanced port design
  - Balanced port in normal and reverse flow directions eliminates disturbance forces caused by condensing pressure in cooling as well as heating mode
  - Capacities performance in normal and reverse flow correlates to capacity of heat pumps in cooling and heating mode





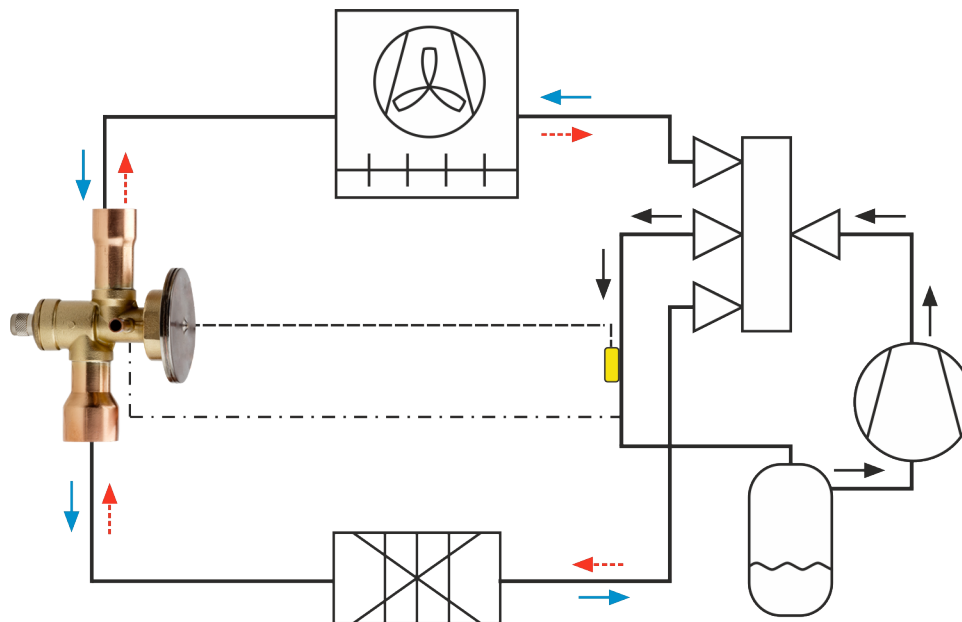
## Reversible air to water chillers and heat pumps

The TX7 is an ideal solution and offers the following features/advantages:

- The floating superheat in reverse flow (heating mode) supports evaporator efficiency during low ambient operating conditions (R410A only). The following table demonstrates this new feature.

Evaporating Temperature	Normal flow (cooling mode)			Reverse flow (heating mode)		
	Static Superheat	Opening Superheat	Operating Superheat	Static Superheat	Opening Superheat	Operating Superheat
+7°C	5.0 K	1.5 K	6.5 K	5.0 K	1.5 K	6.5 K
0°C	3.5 K	2.0 K	5.5 K	3.5 K	2.0 K	5.5 K
-10°C	-	-	-	2.0 K	2.5 K	4.5 K
-20°C	-	-	-	1.0 K	3.5 K	4.5 K

- True Bi-Flow
  - The TX7 meets the requirements of systems in terms of optimum superheat control as well as flow capacity performance in cooling and heating mode.



DCO187-EN-1603

For more details, see [www.emersonclimate.eu](http://www.emersonclimate.eu)

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