



TEMPERATURE RESPONSIVE EXPANSION VALVE

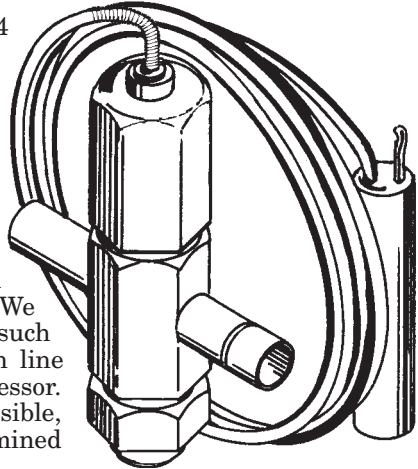
Y1037, Y1210 & Y1244

INSTALLATION & FIELD SERVICE INSTRUCTIONS

Valve Location

The type Y1037, Y1210 or Y1244 Temperature Responsive Expansion Valve (TREV) may be mounted in any position and will perform properly. However, mounting the valve upside down should be avoided as this may allow foreign material to be trapped in the bellows section of the valve.

The liquid supply line should be connected to a high side location that will provide vapor free liquid to the valve. We recommend that the TREV be piped such that it feeds directly into the suction line 12" to 18" upstream from the compressor. See figure 1. Other locations are possible, and their suitability should be determined by testing and evaluation.



A service valve upstream of the TREV will be necessary to allow for servicing of the valve. A small solenoid valve will normally not be required upstream of the TREV.

Bulb Location

The TREV modulates refrigerant flow in response to bulb temperature only. It is important that the bulb be located properly to control the desired temperature. **We recommend strapping the sensing bulb as close to the compressor discharge valve as possible, not to exceed 18". Good thermal contact between the bulb and discharge line is essential.**

The control temperature of the valve may be slightly higher due to the cooling effects of ambient temperature on the sensing bulb. **Therefore, we recommend insulating the bulb with a high-temperature insulation material, e.g., fiberglass or equivalent.**

As a result of these variables that influence the valve's control settings, actual tests must be performed to verify the valve controls at the desired bulb temperature.

Solder Technique

It is not necessary to disassemble the TREV when soldering to the connecting lines. Any of the commonly used types of solders or brazing materials, e.g., 95-5, Sil-Fos, Easy-Flo, Phos-Copper, Stay Brite 8 or equivalents may be used for copper to copper connections. It is important, however, regardless of the solder used, to **direct the flame away from the valve body.** As an extra precaution, a **wet cloth** may be wrapped around the body during the soldering operation.

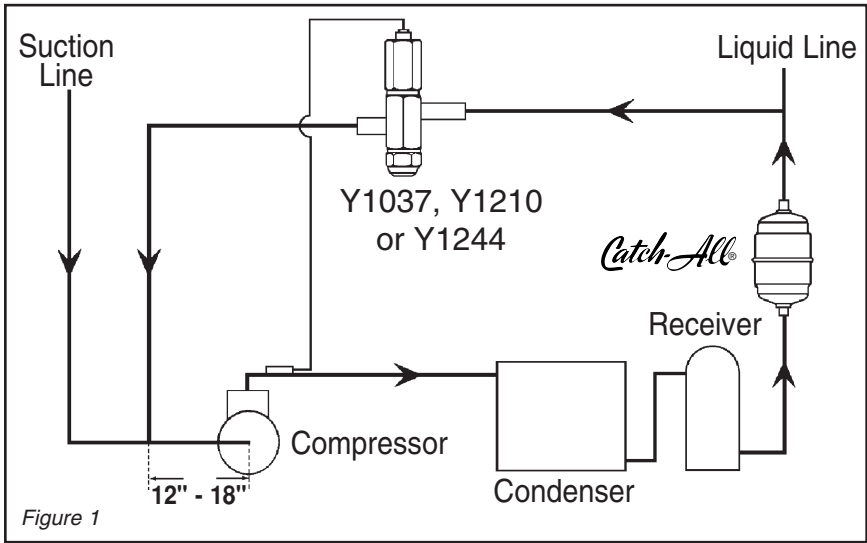


Figure 1

Maximum Test Pressures and Temperatures

Excessive low side test pressures can damage the bellows assembly located in the thermostatic element of the TREV. The recommended maximum low side test pressure is 500 psig. This is well above the minimum field leak test pressures for low sides, listed by the ANSI/ASHRAE Standard 15-1992.

The maximum temperature the valve should be exposed to is 50°F above the control setting. For example, if the valve setting is 240°F, the maximum recommended valve temperature is 290°F (240+50). The bellows assembly will over-extend and become damaged if this temperature is exceeded.

Field Service

Replaceable elements and internal parts kits are not available for the TREV. However, the valve bottom cap may be removed for inspection and cleaning when necessary. Every valve is supplied with an inlet strainer.

DO NOT REMOVE THE THERMOSTATIC ELEMENT AS PERMANENT DAMAGE WILL OCCUR. Internal parts may be removed for cleaning by removing bottom cap. Do not interchange parts between TREV's. Each valve is charged and tested as a unit, and changing parts will change the valve's setting considerably.

FOR USE ON AIR CONDITIONING and/or REFRIGERATION SYSTEMS ONLY

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