



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 actuator 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.

FOR USE ON AIR CONDITIONING and/or REFRIGERATION SYSTEMS ONLY



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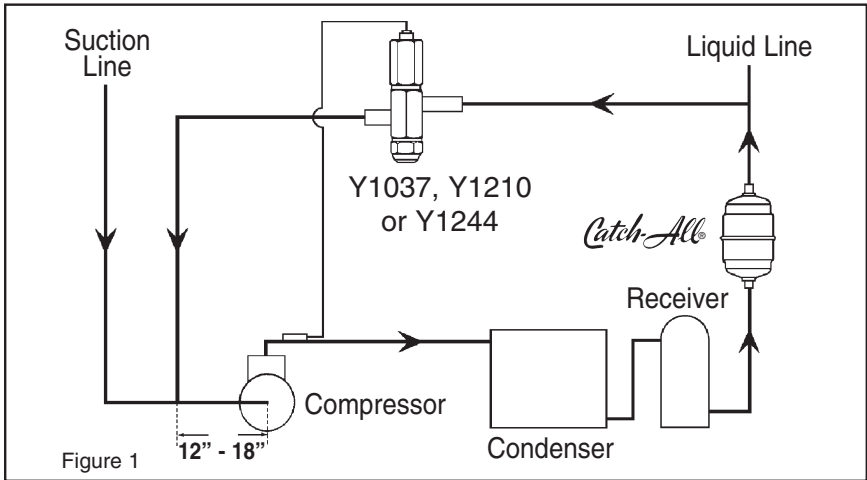


Figure 1

SAFETY GUIDE

FOR SELECTING AND USING SPORLAN DIVISION TEMPERATURE RESPONSIVE EXPANSION VALVES

⚠ WARNING: FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF SPORLAN DIVISION PRODUCTS, ASSEMBLIES OR RELATED ITEMS (“PRODUCTS”) CAN CAUSE DEATH, PERSONAL INJURY, AND PROPERTY DAMAGE. POSSIBLE CONSEQUENCES OF FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THESE PRODUCTS INCLUDE BUT ARE NOT LIMITED TO:

- Injuries or damage resulting from inhalation or exposure to conveyed fluids
- Injuries or damage resulting from explosion
- Injuries or damage resulting from fire

Before selecting or using any of these Products, it is important that you read and follow the instructions below.

Sporlan Division Products can and do fail without warning for many reasons. Design all systems and equipment in a fail-safe mode, so that failure of these products and related accessories will not endanger persons or property.

Pressure Rating: The maximum internal pressure of the Y1037, Y1210 and Y1244 valves is 500 psig (34 bar). Subjecting these products outside the maximum pressure rating can result in product failure.

Temperature Rating: The maximum temperature the Y1037, Y1210 and Y1244 valves should be exposed to is 50°F (28°C) above the valve’s control setting. For example, if the valve setting is 240°F (115°C), the maximum valve temperature is 290°F (143°C).

Field Service: DO NOT REMOVE THE SENSING BULB ASSEMBLY AS PERMANENT DAMAGE WILL OCCUR. Internal parts may be removed for cleaning by removing the bottom cap. Do not interchange parts between these valves. Each valve is charged and tested as a unit, and changing the parts will change the valve’s operating characteristics. Field disassembly voids the product warranty.