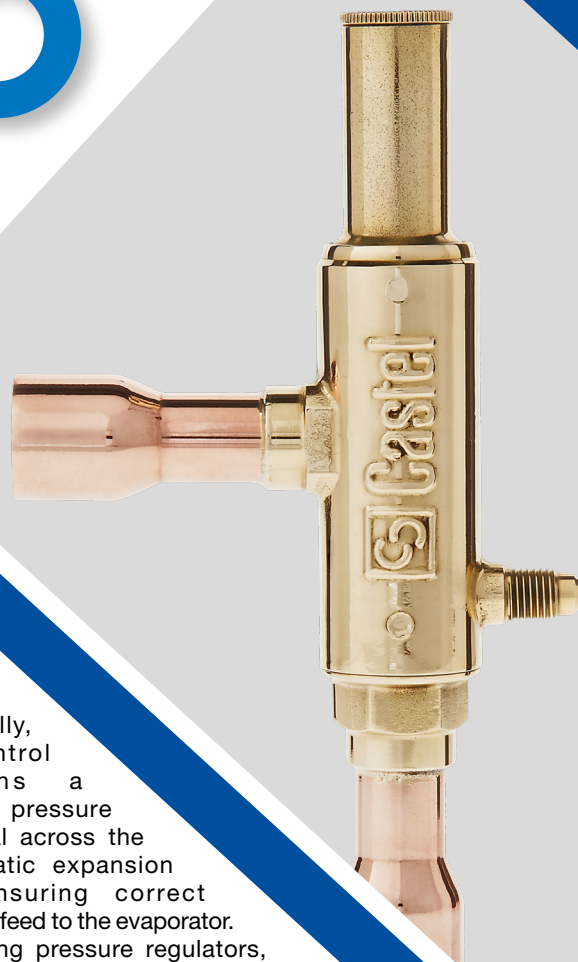




PRESSURE REGULATORS 33-EL FOR CO₂ SUBCRITICAL APPLICATIONS



Castel Pressure Regulators are designed to provide an economical method of refrigeration and air conditioning system control.

Pressure Regulators series 33-EL are specifically designed to be suitable for CO₂ subcritical systems with a maximum working pressure up to 45 bar.

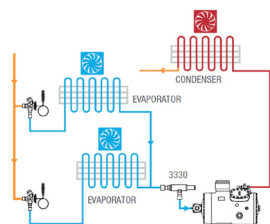
The main parts of the Pressure Regulators 33-EL are made with high-performance materials, especially for CO₂ subcritical applications.

TYPICAL APPLICATIONS OF THE PRESSURE REGULATORS

- **Evaporating Pressure Regulators 3335EL**

Evaporating pressure regulators are an accessory designed to maintain a constant evaporating pressure and thereby a constant surface temperature on the evaporator under varying evaporator loads.

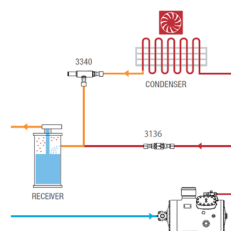
This regulator prevents too low evaporating pressure and therefore protects the water chiller from freezing or the formation of ice in air evaporators. These regulators allow multiple evaporators to operate at different temperatures in a system with only one compressor.



- **Condensing Pressure Regulators 3345EL**

When designing air conditioning and refrigeration systems that use air cooled condensing units, subject to a wide range of ambient temperatures, it is very important to provide accurate condenser capacity control. Since a properly sized condensing unit operates satisfactorily at high ambient temperature, capacity control is needed at low ambient temperatures. Good condensing pressure control in periods with low ambient temperature, avoids problems during system operation and facilitates start-up.

Specifically, this control maintains a sufficient pressure differential across the thermostatic expansion valve ensuring correct refrigerant feed to the evaporator. Condensing pressure regulators, together with the differential valves, are the solution to this control need. The regulators series 3345EL restrict the liquid flow from the condenser to the receiver, reducing the active condenser surface and raising the condensing pressure. The differential valve 3136W by-passes hot gas from the compressor discharge to the receiver, raising the liquid pressure in the receiver.



CASTEL, your consolidated partner for CO₂ applications

Technical data:

Refrigerant: CO₂ (R744)

Evaporating Pressure Regulators 3335EL connections 1/2", 5/8" and 7/8"

Condensing Pressure Regulators 3345EL connections 1/2", 5/8" and 7/8"

MWP (maximum working pressure): 45 bar

TS min / TS Max: -40°C / 110°C

Download the 2021 General Catalogue from our web site: www.castel.it to see our complete product range for CO₂.