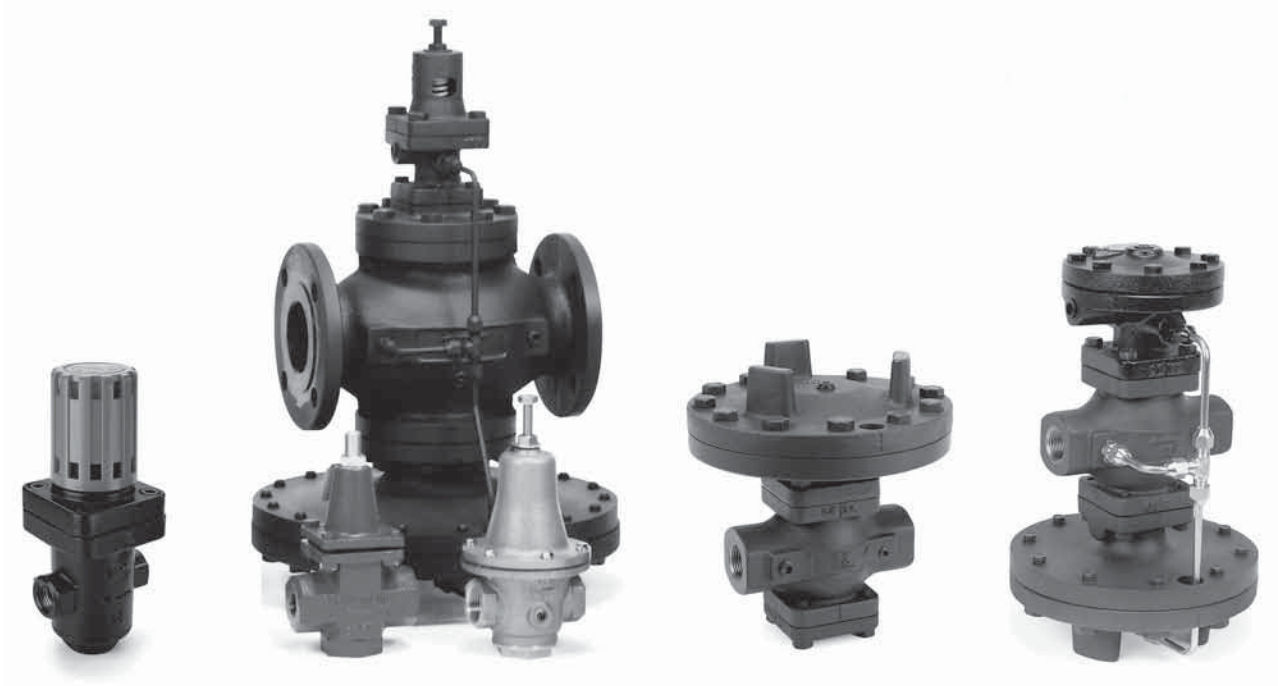
Pressure Reducing Valves

PRV Types

Steam, liquids and gases usually flow at high pressures to the points of final use. At these points, a pressure reducing valve lowers the pressure for safety and efficiency and to match the requirements of the application. There are two types of pressure reducing valves offered by Armstrong:

Direct Acting. The simplest of PRVs, the direct acting type operates with convoluted bellows. Since it is self-contained, it does not need an external sensing line downstream to operate. It is the smallest and most economical of the two types and is designed for low to moderate flows. Accuracy of direct acting PRVs is typically ±10% of the downstream set point.

Externally Piloted. This type of PRV incorporates two valves - a pilot and a main valve - in one unit. The pilot valve has a design similar to the direct acting valve. The discharge from the pilot valve acts on a set of double diaphragms, which controls through a piston the opening of the main valve. This high diaphragm area can open a larger main valve, allowing a greater capacity per line size than the direct acting regulators. In addition, the diaphragms are more sensitive to pressure changes, and that means accuracy of ±1%. This greater accuracy is also due to the location of the sensing line outside of the valve, where there is less turbulence. This valve also offers the flexibility to use different types of pilot valves: pressure, temperature, air loaded, solenoid or combinations.



Direct Acting

For Steam, Air and Non-Corrosive Gas Service
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