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Operation Manual

Check Valves

(Model AP64)

A. General information

The AP64 check valve is used in gas delivery systems to prevent reverse gas flow. A check valve is designed to allow flow in the forward flow direction (from inlet to outlet) only.

Refer to the appropriate catalog data sheet for specific product information.

Note: Check valves are designed to restrict reverse flow in gas piping systems under specific pressure conditions. Insufficient pressure differential will not allow the check valve to commence flow. Check valves are not intended to be operated outside of their specific temperature, pressure, and flow specifications. It is the sole responsibility of the user to determine if the wetted materials are compatible with the process gas.

B. Installation

1. Prior to installation, verify that the operating characteristics of the check valve as described below are appropriate for the system in which it will be installed.
   a. Verify the materials of construction are compatible with the intended process gas.
   b. Verify the pressure and temperature ratings are acceptable for the intended application.
   c. Verify that the check valve will be used in gas service only.
2. Inspect the check valve to determine the forward flow direction as indicated by an arrow on the AP64 body hex.
3. Install the check valve in the gas line using the appropriate method described below.
   a. For tube stub connections, weld connectors or other components to the tube stubs per standard industry practice (reference SEMI standard F78).
   b. For metal face seal connectors, assemble connections per standard practice described by fitting supplier (typically 1/8 turn past fingertight).
4. After installation, perform a helium leak test of all face seal connections and welds per standard industry practice (reference SEMI standard F1).

C. Operation

The AP64 check valve does not require any specific action by the system operator for correct operation once installed.

When the AP64 inlet pressure drops below the outlet pressure, the check valve will close to prevent reverse flow. When the inlet to outlet differential pressure exceeds the cracking pressure, then the check valve will open to allow forward flow.

Please contact the factory or your local representative to answer questions or for further information.