

FLANGED, GAS-POWERED PISTON TYPE **Size: 1/2 " through 3"** **For Ammonia (R-717) and Halocarbon Refrigerants**

Features

- **Pressure Rating: 300PSI (-20°F – +240°F)**
- **ASTM A536 Gr. 65-45-12 Ductile Iron Body and Bonnet**
- **Normally Open**
- **Gas Powered to Close**
- **Available with ODS Connections**
- **Manual Lift Stem with Seal Cap**
- **Teflon Seat Disc**

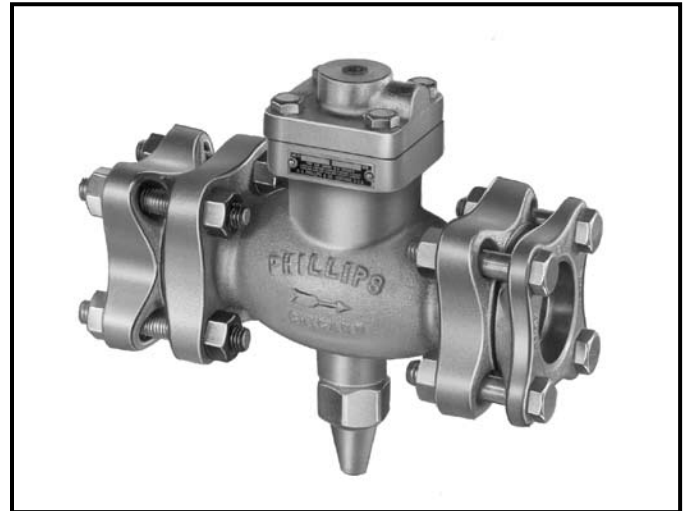
Description

The 700S series flanged, piston type, gas pressure powered valves are normally open by a spring beneath the valve piston. All are equipped with a Manual Lift Stem with a Seal Cap closure. The pilot line connection in the bonnet is 1/4" FPT.

The series 700S valve is designed to be applied as a Suction Stop Valve in suction lines. It also may be applied to liquid legs and gas return legs on flooded evaporators and liquid drain lines in transfer systems. Since the valve is spring opening, no pressure is required to open the valve. On gravity drain application, flow is unrestricted.

Manual Lift Stem

To manually open the valve, cautiously remove the Seal Cap, loosen the gland and turn the Lifting Stem inward (clockwise). To put the valve back into automatic position, turn the Lifting Stem outward (counterclockwise) as far as possible, tighten the gland and replace the Seal Cap.



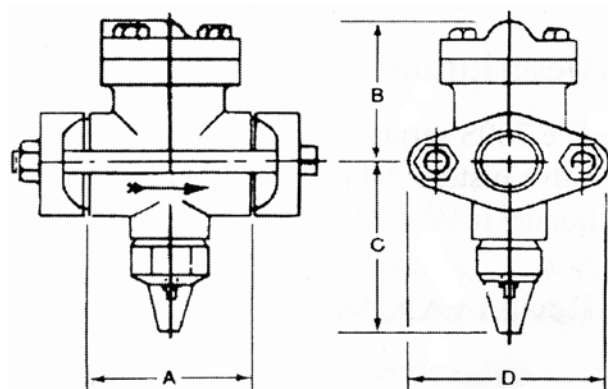
Design Function

The 700S valve is a normally open valve. It is closed by gas pressure from a remote source by energizing a pilot solenoid valve. The gas enters the valve through the 1/4" FPT connection in the top of the valve bonnet and acts upon the top of the piston, forcing the seat disc down on the main valve seat bead, and stopping the refrigerant flow through the main valve. In order for the valve to close, the inlet pilot pressure on top of the piston must be a minimum of 7 psi higher than the inlet pressure to the valve. For the valve to open, the solenoid in the remote pilot line must be de-energized (closed). The higher pressure above the piston vents around the piston and approaches the lower pressure at the outlet of the valve. The spring under the piston forces the piston up, opening the valve fully to allow refrigerant flow.

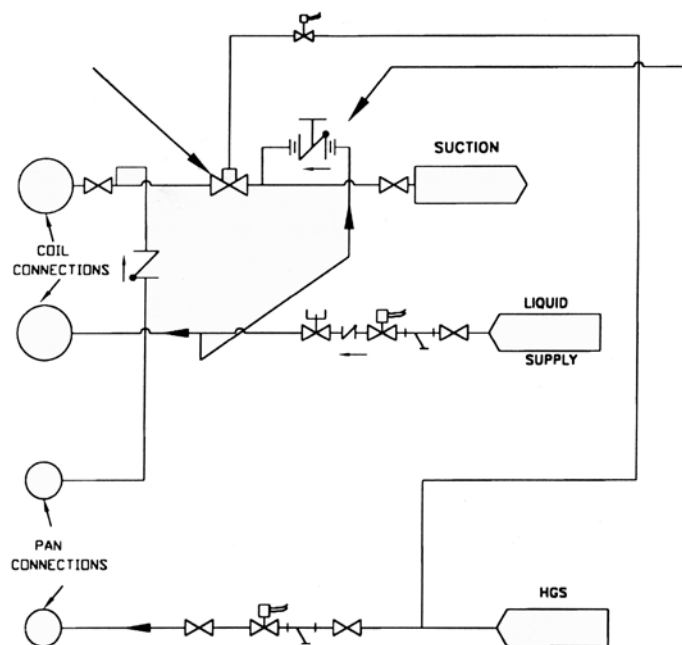
700S Valve Dimensions (inches)

Valve No.	A	B	C	D	Orifice	Flanges			
						Flange Shape	Flange Sizes	Bolts	
								No.	Size
700JRS	3-1/2	3-3/4	4-1/2	4-1/8	3/4	Oval	1/2, 3/4, 1-1/8, 1-3/8	2	1/2
700XS	4	3-3/4	4-1/2	5	1	Oval	1, 1-1/4, 1-5/8	2	5/8
700AXS	9	4-3/4	5-1/2	4-3/4	1-1/2	Square	1-1/2, 2, 2-1/8	4	5/8
700BXS	10	6-1/4	7	6	2-1/4	Square	3, 3-1/8	4	3/4

700S Valve Diagram



700S Valve Application



H. A. Phillips & Co.

1612 Louise Drive
 South Elgin, IL 60177-2242 U.S.A.
 Phone: (630) 377-0050 • Fax: (630) 377-2706
 E-mail: info@haphillips.com
 or visit us @ www.haphillips.com

