

Kep-O-seal® Inline Check Valves – Gas Flow

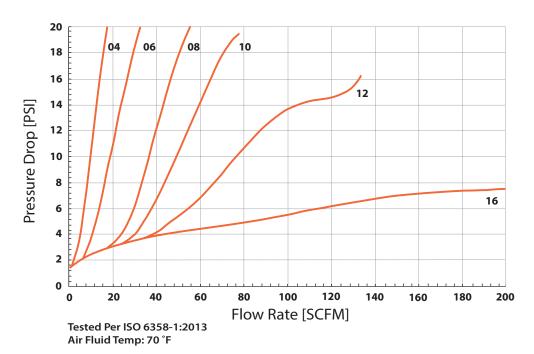


Figure 1

Figure 1 shows approximate airflow data for the Kep-O-seal® check valves. Airflow is plotted as standard cubic feet per minute (SCFM) against pressure drop across the valve. This data is for low pressure conditions with the valve or flowmeter vented to atmosphere.

When dealing with a closed air system (not vented to atmosphere) as is most often the case, the system pressure (or upstream pressure) is higher than atmospheric pressure, thus increasing air density. In this case, the free air flow will be greater (for the same pressure drop across the valve).

Gas (at standard conditions)	Multiply Airflow by
Hydrogen	3.79
Helium	2.69
Ammonia	1.29
Nitrogen	1.02
Oxygen	.95
Propane	.81

This data has been presented to provide reasonable estimates of the gas flow characteristics of Kep-O-seal® valves. The results will not be exact and should not be used in lieu of actual tests where exact data is required. The results will, however, be entirely adequate for valve sizing in a system.

Figure 2

Figure 2 for gases other than air, the flow in SCFM will vary inversely as the ratio of gas density to air density and the flow may be approximated from the airflow rate.

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