

High Flow DISS Demand Check Valve

SPECIFICATION

High Flow DISS Demand Check Valve

The patent-pending High Flow DISS Demand Check Valve is a new family of DISS valves with improved flow and reduced pressure drop compared to currently available DISS valves. With an enhanced aerodynamic design, the High Flow DISS improves the flow and reduces the pressure drop of gas or vacuum through the valve. With this improvement, more gas can flow to the latch valve while maintaining adequate pressure for medical applications. This higher flow and reduced pressure drop is most important where additional downstream restrictions exist, reducing the risk of not delivering the minimum requirements for flow and pressure.

Connections from architectural equipment to hospital piping systems are accomplished through connection of DISS check valves to ensure uninterrupted use of the piping system when the DISS nut and nipple are disconnected for service or repair. The Diameter-Index Safety System (DISS) demand check valves contain a valve mechanism that begins gas flow when the DISS nut and nipple are connected. Flow stops when the DISS nut and nipple are disconnected.

DISS Demand Check Valve Design

The BeaconMedaes High Flow DISS demand check valves are manufactured to comply with the latest edition of CGA V-5, Diameter-Index Safety System (non-interchangeable) low pressure connections for medical gas applications.

The demand check valves are designed for low pressure medical gas systems where pressure does not exceed 200 psig.

The valve body is gas specific with a CGA V-5 connection and a 1/4" MNPT. The valve housing is an anodized aluminum 6061-T6, with a laser-etched gas type on the housing.

The DISS Valve contains a valve mechanism and begins to flow gas when the DISS nut and nipple are connected. Gas flow stops when the DISS nut and nipple are disconnected. The valve, located within the valve housing, prevents gas flow when the adaptor is removed for service. The primary valve is O-ring sealed. All High Flow DISS demand check valves are 100% leak tested, individually packaged and sealed.

The High Flow DISS Demand Check Valve is registered in Canada with CRN number 0C25108.5.

Installation

- Only use dry thread sealant on NPT threads. Liquid sealants can migrate and affect the functionality of the internal valve.
- Installation guideline: Screw the fitting in until finger tight. After hand-tight engagement, tighten 2-3 turns for full engagement, not exceeding 15 ft-lbs. of torque.

High Flow DISS Check Valves				
Part Number	Model	Gas	Pressure	CGA Series
4107 2262 59	HFD-DC-O2	Oxygen	55 psi	1240
4107 2262 60	HFD-DC-N2O	Nitrous Oxide	55 psi	1040
4107 2262 61	HFD-DC-MED AIR	Medical Air	55 psi	1160
4107 2262 62	HFD-DC-VAC	Medical Vacuum	N/A	1220
4107 2262 63	HFD-DC-N2	Nitrogen	180 psi	1120
4107 2262 64	HFD-DC-I-AIR	Instrument Air	180 psi	2080
4107 2262 65	HFD-DC-WAGD	WAGD	N/A	2220
4107 2262 66	HFD-DC-CO2	Carbon Dioxide	55 psi	1080

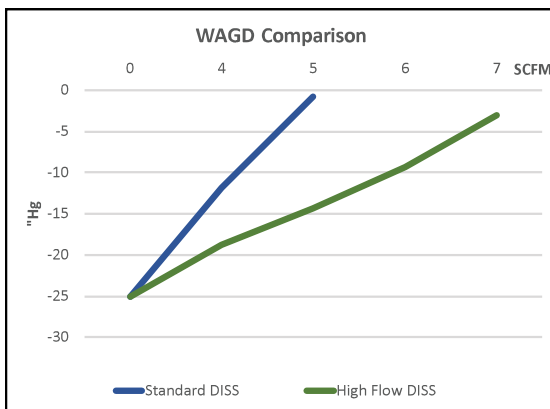
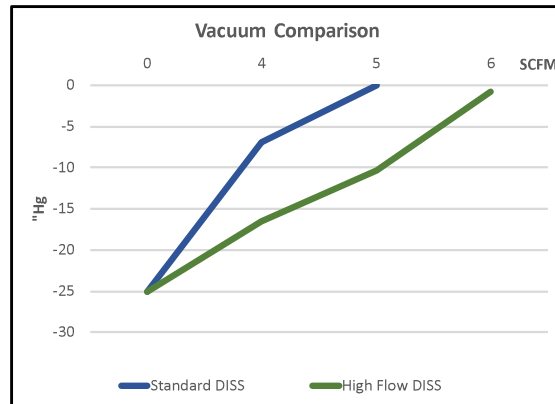
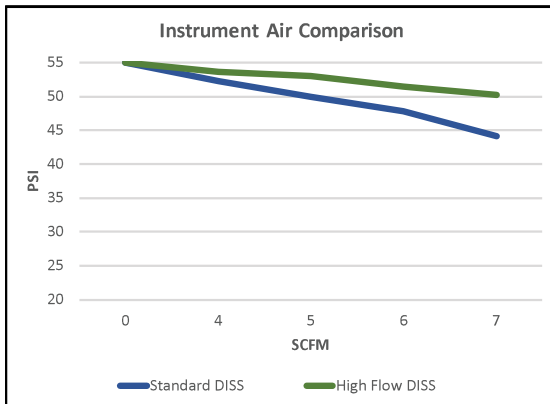
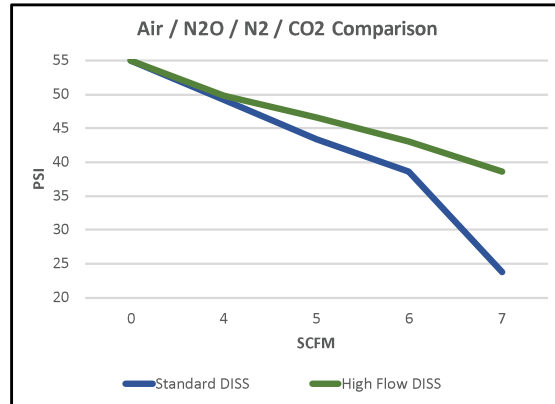
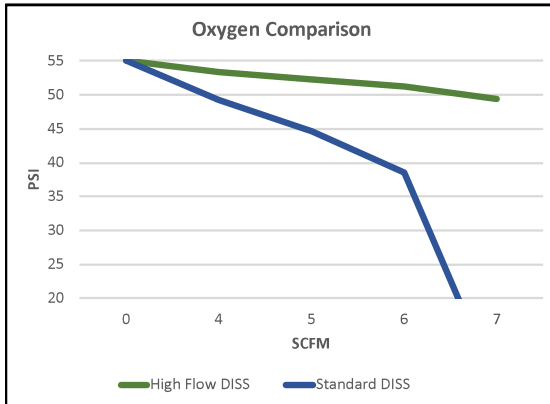


High Flow DISS Check Valves with Inlet Tubes			
Part Number	Gas	Pressure	CGA Series
4107 2267 79	Oxygen	55 psi	1240
4107 2267 80	Nitrous Oxide	55 psi	1040
4107 2267 81	Medical Air	55 psi	1160
4107 2267 82	Medical Vacuum		1220
4107 2267 83	Nitrogen	180 psi	1120
4107 2267 84	Instrument Air	180 psi	2080
4107 2267 85	WAGD		2220
4107 2267 86	Carbon Dioxide	55 psi	1080





Performance



The graphs above represent the difference in pressure drop as flow of gas or vacuum increases.

In the Oxygen Comparison, at 4 scfm of flow, the new High Flow DISS reduces pressure drop 72% compared to a standard DISS fitting, with only 1.56 psi pressure drop compared to 5.72 psi pressure drop.

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