VG1000 Technical Specifications

Product	VG1000 Series Forged Brass Control Valves	
Service*	Hot Water, Chilled Water, 50/50 Glycol Solutions, and 15 psig (103 kPa) Saturated Steam for HVAC Systems	
Fluid Temperature Limits	**Water**	**VG1205 and VG1805 Series:** 23 to 250°F (-5 to 121°C)
	Steam	**VG1205 Series:** 15 psig (103 kPa) at 250°F (121°C)
Valve Body Pressure/ Temperature Rating	**Water**	580 psig (3,996 kPa) (PN40)
	Steam	15 psig (103 kPa) Saturated Steam
Maximum Closeoff Pressure	**VG1205 and VG1805 Series:** 200 psig (1,378 kPa)	
Maximum Recommended Operating Pressure Drop	50 psi Maximum Differential Pressure for Valves 30 psi Maximum for Quiet Service	
Flow Characteristics	**Two-Way**	Equal Percentage
	Three-Way	Equal Percentage Flow Characteristics of In-line Port (Coil) and Linear Flow Characteristics of Angle Port (Bypass)
Rangeability**	Greater than 500:1	
Minimum Ambient Operating Temperature	-4°F (-20°C) M9106 and M9109 Series Non-Spring Return Actuators -25°F (-32°C) M9206 Series Spring Return Actuators -22°F (-30°C) M9216-GGx-2 Series Spring Return Actuators -4°F (-20°C) M9216-Agx-2 and M9216-Bxx-2 Series Spring Return Actuators	
Maximum Ambient Operating Temperature* (Limited by the Actuator)**	**M9000-520 Linkage**	125°F (52°C) M9106 and M9109 Series Non-Spring Return Actuators 140°F (60°C) M9206 Series Spring Return Actuators
	M9000-510 Series Linkage	For Fluid Temperature Below 212°F (100°C) 122°F (50°C) M9216 Series Spring Return Actuators
		For Fluid Temperature Between 212 and 250°F (100 and 121°C) 100°F (38°C) For All Actuators
Leakage	0.01% of Maximum Flow per ANSI/FCI 70-2, Class 4 (Two- and Three-Way Control Port) 1% of Maximum Flow for Three-Way Bypass Port	
End Connections	BSPP	
Materials	**Body**	Forged Brass
	Ball	**VG1x05 Series:** 300 Series Stainless Steel
	Blowout-Proof Stem	**VG1x05 Series:** 300 Series Stainless Steel
	Seats	Graphite-Reinforced PTFE with EPDM O-Ring Backing
	Stem Seals	EPDM Double O-Rings
	Characterizing Disk	AMODEL AS-1145HS Polyphthalamide Resin

* Proper water treatment is recommended; refer to VDI 2035 Standard.

** Rangeability is defined as the ratio of maximum controllable flow to minimum controllable flow.

*** In steam applications, install the valve with the stem horizontal to the piping, and wrap the valve and piping with insulation.