Submittal Data Information

101-153

Geo-Sentry® Ball Valve Zone Valve

Effective: July 30, 2014

Supersedes: December 16, 2013

Job: _____ Engineer: _____ Contractor: _____ Rep: _____

ITEM NO.	MODEL NO.	

Product Specifications

Max. Operating Pressure	300 PSI (2100 kPa)
Max. Shutoff Pressure	125 PSI (875 kPa)
Max. Ambient Temp.	135˚F
Fluid Temp. Range	20 to 220˚F (-7 to 104˚C)
Service	Open and closed systems
Fluids	Water Up to 25% Ethanol Up to 25% Methanol Up to 50% Glycol
Ball Rotation Speed	(90˚ turn), Approximately 5 seconds (after charge time)
Electrical Rating	24 VAC, 60Hz 0.48 Amps
Power Consumption (Charging)	11.4 W, 0.48 Amps
Power Consumption (Power On)	1.44W, 0.06 Amps
Heat Anticipator Setting	0.5 Amps
End Switch Rating	1 Amp @ 24 VAC

Materials of Construction, Actuator:

Body	High Performance Engineered Polymer
Gears	High Performance Internally Lubricated Engineered Polymer

Materials of Construction, Valve:

Body	Forged Brass
Stem	Brass
Press Ring	Brass
Ball	Brass (Chrome Plated)
Seat	Modified Teflon®
O-Rings	EPDM

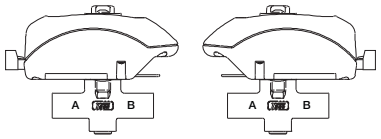
Application:

The Geo-Sentry® Zone Valve provides on-off, normally open or normally closed control and is especially suited for use in either open or closed loop geothermal systems with water source heat pumps.

Ease of Installation / Operation:

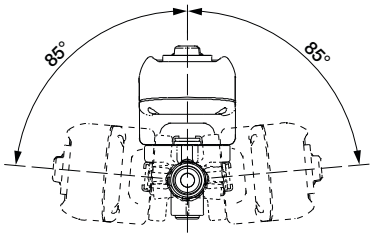
The Geo-Sentry is the most technologically advanced zone valve ever made. It's also simple to install and operate. The valve can be installed in any direction, in any orientation except for chilled water installations (see Figure B). We then went a step further, allowing the actuator to be mounted to the valve body in either direction (see Figure A). Snap-in quick connects on the back of the valve make for a simple, secure and fast wiring hook-up. A green LED light shows full functionality of the valve's operation and thermostat status. Under a no power situation the manual override button located on the top of the valve allows the ball to be rotated up to 90° and is also marked with a slot to indicate the position of the valve.

Figure A



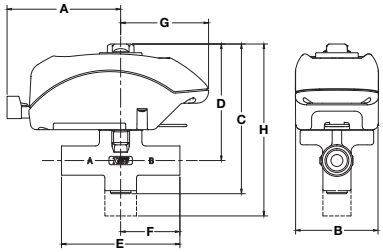
Two Position Head Placement.
Universal Body Placement.
May be installed in any position, any orientation.

Figure B



Permitted Angle of Installation on Chilled Water Applications

Geo-Sentry Dimensions



Valve Size	2-WAY Cv (Kv) / Ft. of Pipe Equiv.**	Close-Off Pressure (kPa)	3-WAY Cv (Kv) / Ft. of Pipe Equiv.**
1/2"	4.9 (4.3) / 9.5	0-125 psi (0-862 kPa)	1.5 (1.3) / 111
3/4"	10.3 (8.9) / 8.4	0-125 psi (0-862 kPa)	3.3 (2.8) / 82
1"	8.9 (7.7) / 47.4	0-125 psi (0-862 kPa)	3.0 (2.6) / 411

**At 4' per second (Max. recommended flow rate is 8' per second).

Geo-Sentry Dimensions: (FOR REFERENCE PURPOSES)

Valve Size	A		B		C		D		E (Sweat)		E (Threaded)		F		G		H (3-way)	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
1/2"	3"	76.2	2-3/8"	60.3	4-1/8"	104.7	3-1/16"	77.8	3-1/8"	79.3	3-3/4"	95.3	1-9/16"	39.7	2-5/16"	58.7	5-1/16"	128.5
3/4"	3"	76.2	2-3/8"	60.3	4-1/8"	104.7	3-1/8"	79.3	3-1/8"	79.3	3-5/16"	84.1	1-9/16"	39.7	2-5/16"	58.7	5-3/8"	136.4
1"	3"	76.2	2-3/8"	60.3	4-1/8"	104.7	3-1/8"	79.3	3-7/8"	98.4	3-7/8"	98.4	1-7/8"	47.6	2-5/16"	58.7	5-1/2"	139.7

NPT Models Normally Closed	2-Way
V050T2G2ZA024Q4A1	1/2" 2-way
V075T2G2ZA024Q4A1	3/4" 2 way
V100T2G2ZA024Q4A1	1" 2-way

Consult factory for additional model numbers.

NPT Models Normally Closed	3-Way
V050T3G1ZA024Q4A1	1/2" 3-way
V075T3G1ZA024Q4A1	3/4" 3-way
V100T3G1ZA024Q4A1	1" 3-way

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