

OPTIPOINT™ SMART VALVES

PRESSURE INDEPENDENT APPLICATIONS



Automated
Logic

VALVES FOR THE WEBCTRL® BUILDING AUTOMATION SYSTEM

The OptiPoint™ smart valves are designed for maximum efficiency in tight spaces. They combine a differential pressure regulator with a 2-way control valve to supply a specific flow for each degree of ball opening, regardless of system pressure fluctuations. As such, the valves perform the function of a balancing valve and control valve in one unit.

The OptiPoint smart valves are operated by a rotary actuator. This actuator is controlled by an Act Net communications signal from the controller which moves the ball of the valve to the desired position.



KEY FEATURES AND BENEFITS

- Communicating actuators eliminate the need to use physical I/O on the controller. Up to two valves can be connected to the Act Net bus on any Act Net-enabled controller. Each valve is pre-addressed for quick commissioning
- Valves are accessed remotely via the WebCTRL system enabling comprehensive analysis and quick error detection with Fault Detection & Diagnostics (FDD)
- Actuators utilize super capacitors to drive actuator to fail state (open or closed, based on part number) on loss of power
- Position feedback is communicated to the WebCTRL system over the Act Net bus helping to facilitate commissioning and ensure proper operation
- Self-cleaning ball helps minimize energy losses caused by clogging and eliminates overflow from pump pressure seat lift. High close-off capabilities ensure shut-off (0% A – AB leakage) and allow for true equal percentage flow characteristics
- Power consumption of the brushless DC motor is 2.5W (fail safe) and .6W (fail last position) when running and .5W (fail safe) and .4W (fail last position) when holding, helping to save energy and transformer power. This also helps eliminate failures due to stalled motors, prolongs actuator life, and allows for more units to be powered by a single transformer
- The valve bodies easily connect to the actuator, allowing operators and technicians to install valves quickly, easily, and without the use of tools to simplify commissioning and help reduce labor costs
- Easily adjust valves either locally or remotely using the WebCTRL system to ensure necessary design requirements are met
- The valve stem extension allows for easy actuator removal without damaging the surrounding insulation, helping simplify operation and maintenance activities



WebCTRL®

The WebCTRL building automation system gives you the ability to understand your building operations and analyze the results. Integrate environmental, energy, security and safety systems into one powerful management tool that helps you reduce energy consumption, increase occupant comfort, and achieve sustainable building operations.

SPECIFICATIONS



Actuator	
Control Type	Communication from any Act Net-enabled controller
Electrical Connection	3 ft. (1 meter) cable
Power Consumption	2.5 W running / 0.5 W holding (fail safe) .6 W running / .4 W holding (fail last position)
Power Supply	24 Vac / Vdc
Transformer Sizing	5 VA
Valve	
Service	Chilled or hot water, 60% glycol
Flow Characteristic	Equal percentage
Sizes	Sizes: 1/2", 3/4"
Controllable Flow	75°
End Fitting	NPT female
Materials	Body: forged brass Ball: stainless steel Stem/Extension/Seals: stainless steel, blow-out proof design Seats/Seals: Teflon® PTFE O-rings: (2) EPDM O-rings
Media Temp Range	36 to 212°F (2 to 100°C)
Media Temp Limit	250°F (120°C)
Max Allowable Operating Temp	212°F (100°C)
Body Pressure Rating	Body: 360 psi
Close-off Pressure Maximum Differential	200 psi
Pressure (ΔP)	5 - 50 psi
Leakage	0%

Part Numbers & Default Characteristics

Fail Mode "Closed" Models

Part #	Size	Flow Rate GPM	Address
Z2050QPT-B+CQK-R-04-A	1/2"	0.9	4
Z2050QPT-B+CQK-R-05-A	1/2"	0.9	5
Z2050QPT-D+CQK-R-04-A	1/2"	2.0	4
Z2050QPT-D+CQK-R-05-A	1/2"	2.0	5
Z2050QPT-F+CQK-R-04-A	1/2"	4.3	4
Z2050QPT-F+CQK-R-05-A	1/2"	4.3	5
Z2075QPT-G+CQK-R-04-A	3/4"	9.0	4
Z2075QPT-G+CQK-R-05-A	3/4"	9.0	5

Fail Mode "Open" Models

Part #	Size	Flow Rate GPM	Address
Z2050QPT-B+CQK-L-04-A	1/2"	0.9	4
Z2050QPT-B+CQK-L-05-A	1/2"	0.9	5
Z2050QPT-D+CQK-L-04-A	1/2"	2.0	4
Z2050QPT-D+CQK-L-05-A	1/2"	2.0	5
Z2050QPT-F+CQK-L-04-A	1/2"	4.3	4
Z2050QPT-F+CQK-L-05-A	1/2"	4.3	5
Z2075QPT-G+CQK-L-04-A	3/4"	9.0	4

Fail Mode "Last Position" Models

Part #	Size	Flow Rate GPM	Address
Z2050QPT-B+CQ-04-A	1/2"	0.9	4
Z2050QPT-B+CQ-05-A	1/2"	0.9	5
Z2050QPT-D+CQ-04-A	1/2"	2.0	4
Z2050QPT-D+CQ-05-A	1/2"	2.0	5
Z2050QPT-F+CQ-04-A	1/2"	4.3	4
Z2050QPT-F+CQ-05-A	1/2"	4.3	5
Z2075QPT-G+CQ-04-A	3/4"	9.0	4
Z2075QPT-G+CQ-05-A	3/4"	9.0	5

