

## for Pressure Independent Applications





Facility managers will benefit from more precise hot water flow in their zoning reheat systems using the new OptiPoint™ smart valves. These valves feature communicating actuators that allow Automated Logic terminal unit controllers to manage reheat valve positions directly using serial commands. This communications technology offers more precise control than conventional zone valves, as the actuator is capable of modulating to any position as directed by the controller and provides exact position feedback for diagnostic purposes.

The Pressure independent models 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.

#### **Key Features and Benefits**

#### **Communicating Actuators**

Valves feature communicating actuators, eliminating 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 preaddressed for quick commissioning.

#### **Electronic Fail-safe**

Actuators utilize super capacitors to drive actuator to fail state (open, closed or in place, based on part number), on loss of power.

#### **Exact Position Feedback**

Position feedback is communicated to the WebCTRL building automation system over the Act Net bus, helping to facilitate commissioning and ensure proper operation.

#### **Remote Accessibility**

Valves can be accessed remotely via the WebCTRL system, enabling comprehensive analysis and quick error detection with Fault Detection & Diagnostics (FDD).

#### **Ball Valve Technology**

Unlike short stroke globe valves, the self-cleaning ball helps minimize energy losses caused by clogging and eliminates overflow from pump pressure seat lift. In addition, high close-off capabilities ensure shutoff (0% A – AB leakage) and allow for true equal percentage flow characteristics.

#### **Snap Fit**

The valve bodies easily connect to the actuator, allowing operators and technicians to install valves quickly, easily, and without the use of tools. This helps simplify commissioning and helps reduce labor costs. In addition, it makes it easy to retrofit existing non-communicating valves.

#### Field Adjustable Max Cv/Flow

Valves can be easily adjusted either locally or remotely using the WebCTRL building automation system to ensure that necessary design requirements are met.

#### **Stem Extension for Insulation**

Unlike conventional zone valve actuators, which are normally covered by pipe insulation, the valve stem extension allows for easy actuator removal without damaging the surrounding insulation, helping simplify operation and maintenance activities.

#### **Actuator with Patented Brushless DC Motor**

The power consumption of the brushless DC motor is 2.5W (fail safe) and .6W (fail last position) when running and 0.5W (fail safe) and .4 (fail last position) when holding, helping to save energy and transformer power. This also helps eliminate failures due to stalled motors, helps prolongs actuator life, and also allows for more units to be powered by a single transformer.



The WebCTRL® 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 allows you to reduce energy consumption, increase occupant comfort, and achieve sustainable building operations.



# OptiPoint Smart Valves

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#### **Actuator Specifications**

Control type

Act Net Communication from any

Act Net-enabled controller

Electrical connection 3 ft. [1 m] cable

Power consumption 2.5 W running, .5 W holding (fail safe)

.6 W running, .4 W holding (fail last position)

Power supply 24 VAC/DC

Transformer sizing 5 VA

**Valve Specifications** 

Service chilled or hot water, 60% glycol

Flow characteristic equal percentage (2-way),

Controllable flow range 75°

Sizes ½", ¾"

End fitting NPT female

Materials

Body forged brass
Ball chrome plated brass
Stem brass

Seats Teflon® PTFE

O-rings PTFE

Media temp. range 36°F to 212°F [2°C to 100°C]

200 psi

Media temp. limit 250°F [120°C]

Maximum allowable operating temperature 212°F [100°C]

Body pressure rating 360 psi

Close-off pressure

Maximum differential

pressure ( $\Delta$ P) 5 to 50 psi

Leakage 0%

## Part Numbers & Default Characteristics

#### Fail Mode "Closed" Models

Part #		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

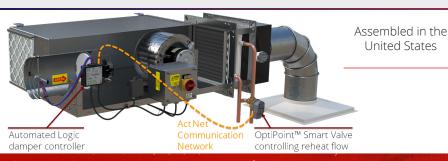
#### Fail Mode "Open" Models

Part #		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
Z2075QPT-G+CQK-L-05-A	3/4"	9.0	5

#### Fail Mode "Last Position" Models

Part #		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		
Z2075QPT-G+CQK-L-05-A	3/4"	9.0	5		





Automated Logic

