# Z2050QPT-B, Pressure Independent ZoneTight Zone Valves (PIQCV)









| Technical Data          |                                      |  |  |
|-------------------------|--------------------------------------|--|--|
| Service                 | chilled, hot water, up to 60% glycol |  |  |
| Flow Characteristic     | equal percentage                     |  |  |
| Controllable Flow Range | 75°                                  |  |  |
| Valve Size              | 0.5 " [15]                           |  |  |
| End Fitting             | NPT female ends                      |  |  |
| Body                    | forged brass                         |  |  |
| Ball                    | stainless steel                      |  |  |
| Stem                    | stainless steel                      |  |  |
| Seat                    | Teflon® PTFE                         |  |  |
| Seat O-ring             | EPDM                                 |  |  |
| Characterized Disc      | incorporated into the ball           |  |  |
| Diaphragm               | EPDM                                 |  |  |
| Body Pressure Rating    | 360 psi                              |  |  |
| Media Temperature       | 36°F to 212°F [2°C to 100°C]         |  |  |
| Range (Water)           |                                      |  |  |
|                         | 212°F [100°C] *                      |  |  |
| Operating Temperature   | 05005 [40400] *                      |  |  |
|                         | 250°F [121°C] *                      |  |  |
|                         | 5 to 50 psi                          |  |  |
| Close-Off Pressure      | 200 psi                              |  |  |
| Valve Accuracy          | +/- 5%                               |  |  |
| Weight                  | 1.8 lb [0.8 kg]                      |  |  |
| GPM                     | 0.9                                  |  |  |
| Leakage                 | 0%                                   |  |  |
| Servicing               | maintenance free                     |  |  |

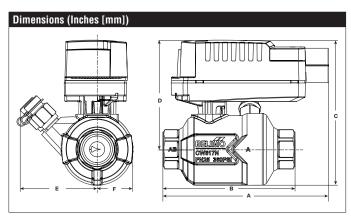
<sup>\*</sup> If temperature exceeds 212°F operating range due to a boiler control failure the valve will safely contain the hot water but manufacturers product warranty becomes invalid. Valve and actuator replacement is at the expense of others.

## **Application**

The PIQCV zone valves with its pressure independent technology are suited for large commercial buildings where higher close-off and dynamic balancing is required. Common applications include unit ventilators, fan coil units, VAV reheat coils, fin tube casing, radiant panels and duct coils. The valve fits in space restricted areas and can be assembled without the use of tools.

**Suitable Actuators** 

|            | Non-Spring | Electronic Fail-Safe |
|------------|------------|----------------------|
| Z2050QPT-B | CQ         | CQK                  |

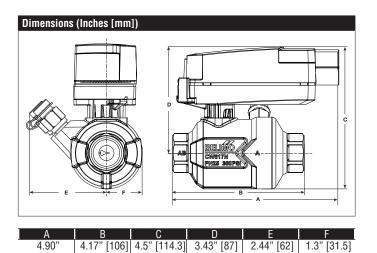


| A       | В           | С           | D         | Е          | F           |
|---------|-------------|-------------|-----------|------------|-------------|
| 4.90"   | 4.17" [106] | 4.79" [122] | 3.5" [89] | 2.44" [62] | 1.3" [31.5] |
| [124.5] |             |             |           |            |             |



[124.5]

# Z2050QPT-B, Pressure Independent ZoneTight Zone Valves (PIQCV)



Weight

Degree of Protection IEC/EN

## CQBUP-3 On/Off, Floating Point, Non-Spring Return, 100 to 240 VAC









| U                         | C E USTED U4 DS TEMP. MD. & C U US   |
|---------------------------|--|
| Technical Data            |  |
| Power Supply              | 100240 VAC, -15% / +10%, 50/60 Hz  |
| Power Consumption Running | 1 W  |
| Power Consumption Holding | 0.7 W  |
| Transformer Sizing        | 2 VA (class 2 power source)  |
| Electrical Connection     | 3ft [1m], 18 GA plenum cable with 1/2" conduit connector   |
| Overload Protection       | electronic thoughout 0° to 90° rotation  |
| Angle of Rotation         | 90°, adjustable with mechanical stop   |
| Position Indication       | pointer  |
| Running Time (Motor)      | 75 sec   |
| Ambient Humidity          | 5 to 95% RH non condensing (EN 60730-1)  |
| Ambient Temperature Range | 35°F to 104°F [1.7°C to 40°C]  |
| Storage Temperature Range | -40°F to 176°F [-40°C to 80°C]   |
| Housing                   | IP40, NEMA 2   |
| Housing Material          | UL94-5VA   |
| Agency Listings†          | cULus acc. to UL60730-1A/-2-14, CAN/CSA<br>E60730-1:02, CE acc. to 2004/108/EC and<br>2006/95/EC |
| Noise Level (Motor)       | max. 35 dB (A)   |
| Servicing                 | maintenance free   |
| Quality Standard          | ISO 9001   |

<sup>†</sup> Use flexible metal conduit. Push the listed conduit fitting device over the actuator's cable to butt against the enclosure. Screw in conduit connector. Jacket the actuators input wiring with listed flexible conduit. Properly terminate the conduit in a suitable junction box. Rated impulse Voltage 800V. Type of action 1. Control pollution degree 3.

0.4 lb [0.2 kg]

IP40

#### **Application**

Non-Spring Return On/Off/Floating Point ZoneTight actuator.

Valve selection should be done in accordance with the flow parameters and system specifications. The actuator is mounted directly to the valve without the need for tools or additional linkage.

Angle of rotation is adjustable with the integrated mechanical stop.



### On/Off, Floating Point, Non-Spring Return, 100 to 240 VAC



#### Wiring Diagrams



## **X** Installation notes



Actuators with appliance cables are numbered.



Actuators may be connected in parallel. Power consumption and input impedance must be observed.



Actuators with plenum cable do not have numbers; use color codes instead.



Meets cULus requirements without the need of an electrical ground connection.



Apply only AC line voltage or only UL-Class 2 voltage to the terminals of auxiliary switches. Mixed or combined operation of line voltage/safety extra low voltage is not allowed.



### WARNING! LIVE ELECTRICAL COMPONENTS!

During installation, testing, servicing and troubleshooting of this product, it may be necessary to work with live electrical components. Have a qualified licensed electrician or other individual who has been properly trained in handling live electrical components perform these tasks. Failure to follow all electrical safety precautions when exposed to live electrical components could result in death or serious injury.

