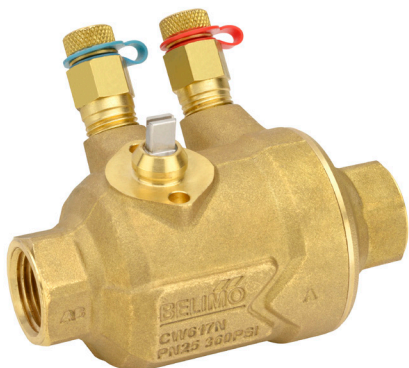


Z2050QPT-D, Pressure Independent ZoneTight Zone Valves (PIQCV)



Technical Data

| | |
|---|--------------------------------------|
| Media | chilled, hot water, up to 60% glycol |
| Flow characteristic | equal percentage |
| Controllable flow range | 75° |
| Valve Size | 0.5 " [15] |
| Type of End Fitting | NPT female ends |
| Housing | forged brass |
| Ball | stainless steel |
| Stem | stainless steel |
| Seat | Teflon® PTFE |
| O-ring | EPDM |
| Characterising disc | incorporated into the ball |
| Diaphragm | EPDM |
| Body Pressure Rating | 360 psi |
| Maximum Allowable Operating Temperature | 212°F [100°C] * |
| Closing pressure Δps | 200 psi |
| Valve Accuracy | +/- 5% |
| Weight | 1.8 lb [0.80 kg] |
| GPM | 2 |
| Leakage rate | 0% |
| Maintenance | maintenance free |

* 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.

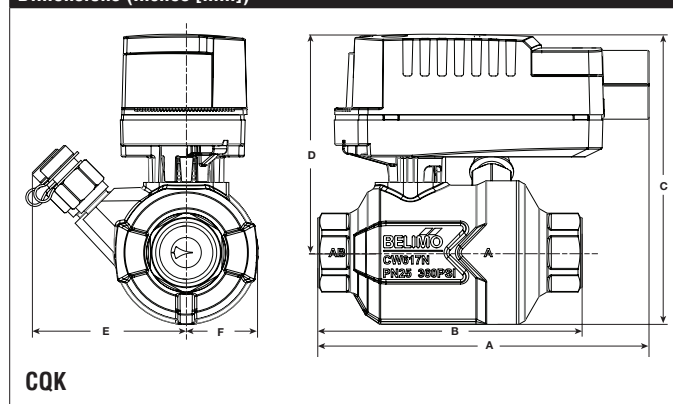
Application

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.

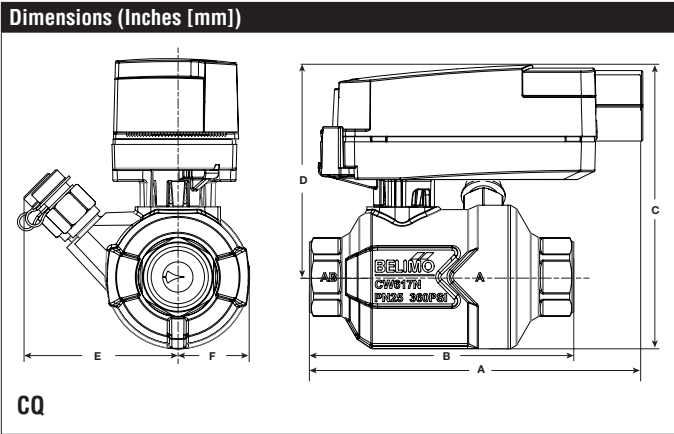
Suitable Actuators

| | Non-Spring | Electronic fail-safe |
|------------|------------|----------------------|
| Z2050QPT-D | CQ | CQK |

Dimensions (Inches [mm])



| A | B | C | D | E | F |
|---------------|-------------|-------------|-----------|------------|-------------|
| 4.90" [124.5] | 4.17" [106] | 4.79" [122] | 3.5" [89] | 2.44" [62] | 1.3" [31.5] |



| A | B | C | D | E | F |
|------------------|-------------|--------------|------------|------------|-------------|
| 4.90" [124.5] | 4.17" [106] | 4.5" [114.3] | 3.43" [87] | 2.44" [62] | 1.3" [31.5] |

CQKB24-SR-RL

Modulating, Electronic Fail-Safe, 24 V, for 2 to 10 VDC or 4 to 20 mA Control Signal



Technical Data

| | |
|-----------------------------|--|
| Power Supply | 24 VAC, $\pm 20\%$, 50/60 Hz, 24 VDC, $\pm 10\%$ |
| Power Consumption Running | 2.5 W |
| Power Consumption Holding | 0.5 W |
| Transformer Sizing | 5 VA (class 2 power source) |
| Electrical Connection | 3ft [1m], 18 GA plenum cable with 1/2" conduit connector |
| Overload Protection | electronic throughout 0° to 90° rotation |
| Operating Range Y | 2 to 10 VDC, 4 to 20 mA w/ ZG-R01 (500 Ω , 1/4 W resistor) |
| Angle of Rotation | 90°, adjustable with mechanical stop |
| Position Indication | pointer |
| Running Time (Motor) | 75 sec |
| Running Time (Fail-Safe) | <60 sec |
| Bridge Time | 2 sec delay before fail-safe activates |
| Pre-charging Time | 5 to 20 seconds |
| Ambient Humidity | 5 to 95% RH non-condensing |
| 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 E60730-1:02, CE acc. to 2004/108/EC and 2006/95/EC |
| Noise Level (Motor) | max. 35 dB (A) |
| Servicing | maintenance free |
| Quality Standard | ISO 9001 |
| Weight | 0.4 lb [0.2 kg] |
| Degree of Protection IEC/EN | IP40 |

Wiring Diagrams

INSTALLATION NOTES

- A** Actuators with appliance cables are numbered.
- 2** Actuators may be connected in parallel. Power consumption and input impedance must be observed.
- 3** Actuators may also be powered by 24 VDC.
- 5** Only connect common to negative (-) leg of control circuits.
- 7** A 500 Ω resistor (ZG-R01) converts the 4 to 20 mA control signal to 2 to 10 VDC.
- 18** Actuators with plenum cable do not have numbers; use color codes instead.
- Meets cULus requirements without the need of an electrical ground connection.

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.

