

ZoneTight™, 3-way, Press fit

- For closed cold and warm water systems
- For switching functions and 2-point controls on the water side of air-handling units and heating systems
- Snap-assembly of the actuator





5-year warranty



Type overview	
Туре	DN
Z3075QPF-J	20

Technical data

Functional data

Valve size [mm]	0.75" [20]
Fluid	chilled or hot water, up to 60% glycol
Fluid Temp Range (water)	36212°F [2100°C]
Body Pressure Rating	250 psi
Close-off pressure Δps	40 psi
Differential pressure Δpmax	40psi
Flow characteristic	linear
Leakage rate	0%
Pipe connection	Press fit
Installation orientation	upright to horizontal (in relation to the stem)
Servicing	maintenance-free
Flow Pattern	3-way Diverting
Cv	4.6
Valve body	forged brass
Stem	brass
Stem seal	EPDM O-ring
Seat	PTFE, O-Ring EPDM
Ball	chrome plated brass

Safety notes



Suitable actuators

Non Fail-Safe

Electrical fail-safe

Materials

• WARNING: This product can expose you to lead which is known to the State of California to cause cancer and reproductive harm. For more information go to www.p65warnings.ca.gov

CQB(X)

CQKB(X)

• 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.

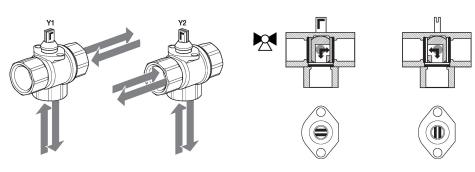


Product features

Application

The QCV zone valves are suited for large commercial buildings where higher close-off and the ability to change flow is desired. 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.

Flow/Mounting details



Operating mode

The change-over zone valve is adjusted by a rotary actuator. The rotary actuator is controlled by an on/off signal.

Simple direct mounting

Tool-free snap assembly.

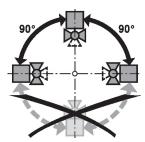
The actuator can be plugged on the valve by hand (Caution! Just vertical movements). Pins must match the holes on the flange.

The mounting orientation in relation to the valve can be selected in 180° increments. (Possible two times)

Installation notes

Permissible installation orientation

The ball valve can be installed upright to horizontal. The ball valve may not be installed in a hanging position, i.e. with the stem pointing downwards.



Water quality requirements

Belimo valves are regulating devices. For the valves to function correctly in the long term, they must be kept free from particle debris (e.g. welding beads during installation work). The installation of a suitable strainer is recommended.

Servicing

Ball valves and rotary actuators are maintenance-free.

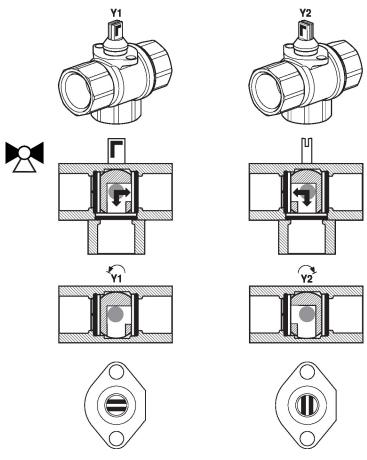
Before any service work on the control element is carried out, it is essential to isolate the rotary actuator from the power supply (by unplugging the electrical cable if necessary). Any pumps in the part of the piping system concerned must also be switched off and the appropriate slide valves closed (allow all components to cool down first if necessary and always reduce the system pressure to ambient pressure level).

The system must not be returned to service until the ball valve and the rotary actuator have been correctly reassembled in accordance with the instructions and the pipeline has been refilled by professionally trained personnel.

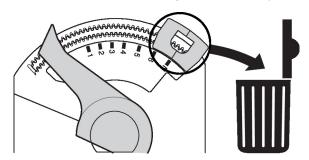


Installation notes

Flow direction Direction of flow in both directions possible.



Flow setting At the actuator the end stop clip has to be removed in order to get the angle of rotation of 90°, which is needed for the change-over functionality.

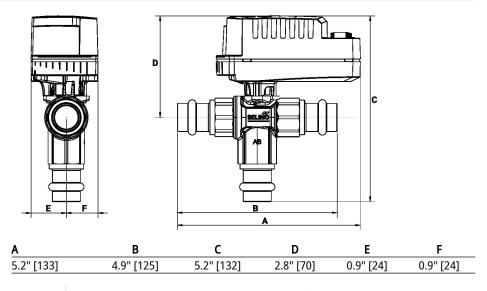


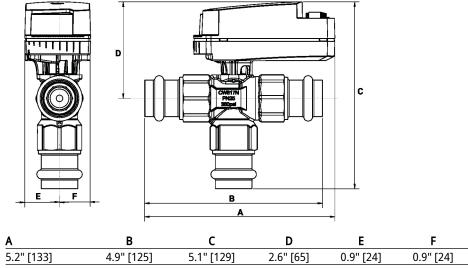
Remove end stop clip

Dimensions			
Туре	DN	Weight	
Z3075QPF-J	20	0.53 lb [0.24 kg]	



Dimensions







On/Off, Electrical fail-safe, 100...240 V

- Nominal voltage AC 100...240 V
- Control On/Off





Electrical data	Nominal voltage	AC 100240 V	
	Nominal voltage frequency	50/60 Hz	
	Nominal voltage range	AC 85265 V	
	Power consumption in operation	2.5 W	
	Power consumption in rest position	0.5 W	
	Transformer sizing	7 VA	
	Electrical Connection	19 GA appliance cable, 1 m, with 1/2" NPT conduit connector	
	Overload Protection	electronic thoughout 090° rotation	
	Electrical Protection	actuators are double insulated	
Functional data	Bridging time (PF)	2 s	
	Pre-charging time	520 s	
	Angle of rotation	90°	
	Angle of rotation note	adjustable with mechanical stop	
	Running Time (Motor)	75 s / 90°	
	Running time fail-safe	<60 s	
	Noise level, motor	35 dB(A)	
	Noise level, fail-safe	35 dB(A)	
	Position indication	pointer	
Safety data	Power source UL	Class 2 Supply	
	Degree of protection IEC/EN	IP40	
	Degree of protection NEMA/UL	NEMA 2	
	Enclosure	UL Enclosure Type 2	
	Agency Listing	cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02 CE acc. to 2014/30/EU and 2014/35/EU	
	Quality Standard	ISO 9001	
	UL 2043 Compliant	Suitable for use in air plenums per Section 300.22(C) of the NEC and Section 602 of the IMC	
	Ambient humidity	Max. 95% RH, non-condensing	
	Ambient temperature	35104°F [240°C]	
	Storage temperature	-40176°F [-4080°C]	
	Servicing	maintenance-free	
Weight	Weight	0.66 lb [0.30 kg]	



Technical data

Materials

Housing material

UL94-5VA

Product features

Application

Electrical fail-safe On/Off 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.

The actuator operates in response to AC 100...240 V. Angle of rotation is adjustable with the integrated mechanical stop.

Electrical installation

INSTALLATION NOTES

Actuators with appliance cables are numbered.

Provide overload protection and disconnect as required.

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

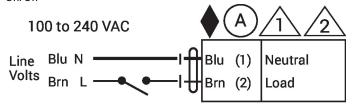


Meets cULus requirements without the need of an electrical ground connection.

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.

Wiring diagrams On/Off



Functions	Α	
0% ◀	/-	7
100% 🗳	Ż	(
Fail Position	0% Close	