



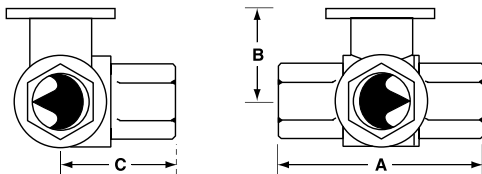
Technical Data	
Service	chilled or hot water, 60% glycol
Flow characteristic	A-port equal percentage B-port modified for constant common port flow
Action	90° rotation
Sizes	½", ¾"
Type of end fitting	NPT female ends
Materials:	
Body	forged brass, nickel plated
Ball	chrome plated brass
Stem	nickel plated brass
Seats	PTFE
Characterizing disc	Tefzel®
Packing	2 EPDM O-rings, lubricated
Pressure rating	600 psi per EN 12266-1:2003
Media temp. range	0°F to 212°F [-18°C to 100°C]
Close off pressure	200 psi
Maximum differential pressure (ΔP)	30 psi for typical applications
Leakage	0% for A to AB <2.0% for B to AB
C <sub>v</sub> rating	A-port: see product chart for values B-port: 70% of A to AB C <sub>v</sub>

Tefzel® is a registered trademark of DuPont

C <sub>v</sub>	Valve Nominal Size		Type	Suitable Actuators			
	Inches	DN [mm]	3-way NPT	Non-Spring	Spring		
0.3	½	15	B307B	TR Series	LR Series		
0.46	½	15	B308B				
0.8	½	15	B309B				
1.2	½	15	B310B				
1.9	½	15	B311B				
3	½	15	B312B				
4.7	½	15	B313B				
10	½	15	B315B*				
4.7	¾	20	B317B			TF Series	LF Series
7.4	¾	20	B318B				
24	¾	20	B320B*				

\*Models without characterizing disc

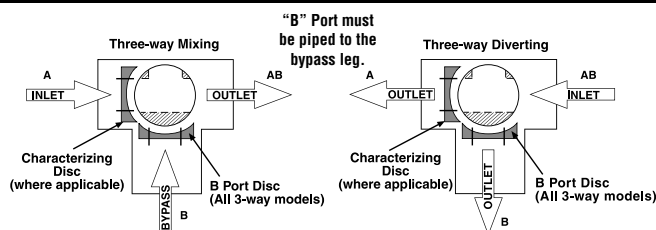
### Dimensions



3Way/Valve-B307-B320

Valve Body	Valve Nominal Size		Dimensions (Inches [mm])		
	Inches	DN [mm]	A	B	C
B307B-B311B	½"	15	2.41" [61.1]	1.39" [35.2]	1.20" [30.6]
B312B-B315B	½"	15	2.38" [60.4]	1.72" [43.7]	1.26" [32.1]
B317B-B320B	¾"	20	2.73" [69.3]	1.81" [45.9]	1.45" [36.8]

### Flow Patterns



# TR24-3 Actuators, On-Off, Floating Point



## Models

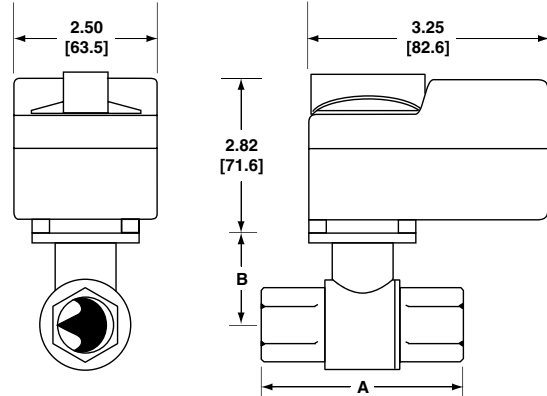
<b>TR24-3-T US</b>	
TR24-3 US	TR24-3-T US with 3 ft plenum rated cable
TR24-3/300 US	TR24-3-T US with 10 ft plenum rated cable
TR24-3/500 US	TR24-3-T US with 16 ft plenum rated cable

## Technical Data

Control	On/Off, Floating Point
Nominal voltage	24 VAC 50/60 Hz
Nominal voltage range	19.2...28.8 VAC
Power consumption	1 W
Transformer sizing	1VA (class 2 power source)
Electrical connection	screw terminals accessible after removal of small cover (3 ft, 10 ft, 16 ft cables optional)
Input impedance	0.36 kΩ
Angle of rotation	90°
Position indication	integrated into handle
Manual override	push down handle
Running time	90 seconds @ 60 hz, 108 seconds @ 50 hz
Humidity	5 to 95% non-condensing
Ambient temperature	-22°F to 122°F (-30°C to 50°C)
Storage temperature	-40°F to 176°F (-40°C to 80°C)
Housing	NEMA 1/IP40
Housing rating	UL94-5V(B)
Agency listing†	cULus according to UL 60730-1A/-2-14, CAN/CSA E60730-1:02, CE according to 2004/108/EC and 2006/95/EC for line voltage and/or -S versions
Noise level	Max. 35 db (A)
Quality standard	ISO 9001

† Rated impulse voltage 330V, Control pollution degree 2, Type of action 1

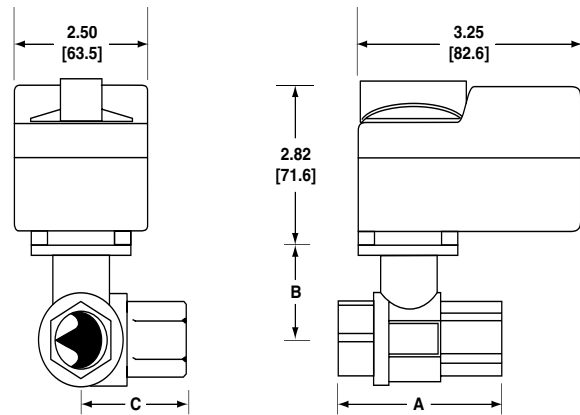
## Dimensions with 2-Way Valve



D069

Valve Body	Valve Nominal Size		Dimensions (Inches [mm])	
	Inches	DN [mm]	A	B
B207(B)-B211(B)	½"	15	2.41" [61.1]	1.39" [35.2]
B212(B)-B215(B)	½"	15	2.38" [60.4]	1.72" [43.7]
B217(B)-B220(B)	¾"	20	2.73" [69.3]	1.81" [45.9]

## Dimensions with 3-Way Valve



D072

Valve Body	Valve Nominal Size		Dimensions (Inches [mm])		
	Inches	DN [mm]	A	B	C
B307(B)-B311(B)	½"	15	2.41" [61.1]	1.39" [35.2]	1.20" [30.6]
B312(B)-B315(B)	½"	15	2.38" [60.4]	1.72" [43.7]	1.26" [32.1]
B317(B)-B320(B)	¾"	20	2.73" [69.3]	1.81" [45.9]	1.45" [36.8]

L30034 - 07/09 - Subject to change. © Belimo Aircontrols (USA), Inc.

### Wiring Diagrams

#### ✂️ INSTALLATION NOTES

- 2 The common connection from the actuator must be connected to the Hot connection of the controller.
- 3 Actuators with plenum rated cable do not have numbers on wires; use color codes instead.
- 4 The actuator Hot must be connected to the control board Hot.

**⚠️ 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.

**NOTE: TR24-3(-T) US cannot be wired in parallel with themselves or any other actuator.**

