### **B308B, 3-Way, Characterized Control Valve** Chrome Plated Brass Ball and Nickel Plated Brass Stem





WARRANTY

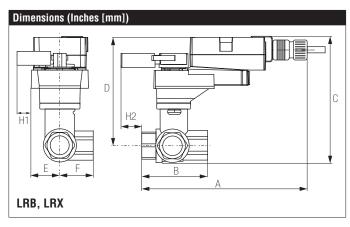
Technical Data	
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Service	chilled, hot water, up to 60% glycol
Flow Characteristic	A-port Equal percentage; B-port modified
	linear for constant flow
Controllable Flow Range	75°
Size [mm]	0.5" [15]
End Fitting	npt female ends
Body	forged brass, nickel plated
Ball	chrome plated brass
Stem	nickel plated brass
Stem Packing	EPDM (lubricated)
Seat	Teflon® PTFE
Seat O-ring	EPDM (lubricated)
Characterized Disc	TEFZEL®
Body Pressure Rating [psi]	600
Media Temperature Range	0°F to 250°F [-18°C to 120°C]
(Water)	
Max Differential Pressure (Water)	50 psi (345 kPa)
Close-Off Pressure	200 psi
Cv	0.46
Weight	0.7 lb [0.3 kg]
Leakage	0% for A to AB, <2.0% for B to AB
Servicing	maintenance free



#### Application

This valve is typically used in air handling units on heating or cooling coils, and fan coil unit heating or cooling coils. Some other common applications include Unit Ventilators, VAV box re-heat coils and bypass loops. This valve is suitable for use in a hydronic system with variable or constant flow.

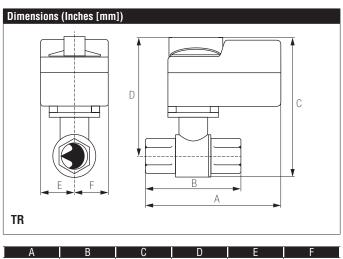
	Suitable Actua	tors
	Non-Spring	Spring
B308B	TR, LR	TFR, LF



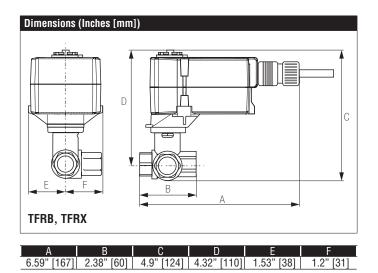
A	B	С	D	E	F	H1	H2
8.5"	2.38"	5.19"	4.61"	1.3"	[33]	1.18"	1.1" [28]
[216]	[60]	[132]	[117]			[30]	

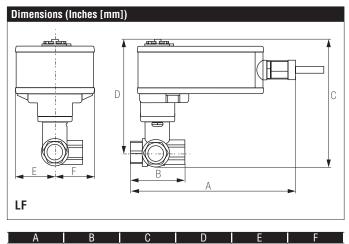


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3.72" [95] 2.38" [60] 4.79" [122] 4.21" [107] 1.25" [32] 1.2" [31]





7.92" [201] 2.38" [60] 5.67" [144] 5.09" [129] 1.82" [46] 1.89" [48]





24 VAC, ±20%, 50/60 Hz, 24 VDC, ±10% 2 W 1 W 4 VA (class 2 power source) (2) 3ft [1m], 18 GA appliance cables with 1/2" conduit connectors electronic throughout 0° to 95° rotation			
1 W 4 VA (class 2 power source) (2) 3ft [1m], 18 GA appliance cables with 1/2" conduit connectors electronic throughout 0° to 95° rotation			
4 VA (class 2 power source) (2) 3ft [1m], 18 GA appliance cables with 1/2" conduit connectors electronic throughout 0° to 95° rotation			
(2) 3ft [1m], 18 GA appliance cables with 1/2" conduit connectors electronic throughout 0° to 95° rotation			
1/2" conduit connectors electronic throughout 0° to 95° rotation			
2 to 10 VDC, 4 to 20 mA w/ ZG-R01 (500 $\Omega$ , 1/4 W resistor)			
100 k $\Omega$ for 2 to 10 VDC (0.1 mA), 500 $\Omega$ for 4 to 20 mA			
2 to 10 VDC, 0.5 mA max			
Max. 95°, 90°			
reversible with built-in switch			
reversible with CW/CCW mounting			
visual indicator, 0° to 95° (0° is full spring return position)			
95 sec			
<25 sec			
max. 95% RH non-condensing			
-22°F to 122°F [-30°C to 50°C]			
-40°F to 176°F [-40°C to 80°C]			
NEMA 2, IP42, UL Enclosure Type 2			
UL94-5VA			
cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2004/108/EC and 2006/95/EC			
<35 dB (A)			
<62 dB (A)			
maintenance free			
ISO 9001			
1.8 lb [0.8 kg]			
1 x SPDT, 3A resistive (0.5A inductive) @ 250 VAC, adjustable 0° to 95° $$			

†Rated Impulse Voltage 800V, Type of action 1.AA, Control Pollution Degree 3



#### Wiring Diagrams

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# 🔀 INSTALLATION NOTES

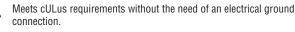
Provide overload protection and disconnect as required.

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

- Actuators may also be powered by 24 VDC.
- Only connect common to negative (-) leg of control circuits.

A 500  $\Omega$  resistor (ZG-R01) converts the 4 to 20 mA control signal to 2 to 10 VDC.

One built-in auxiliary switch (1x SPDT), for end position indication, interlock control, fan startup, etc.



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.

