# Date created, 06/30/2017 - Subject to change. © Belimo Aircontrols (USA), Inc.

# B220B, 2-Way, Characterized Control Valve Chrome Plated Brass Ball and Nickel Plated Brass Stem







WARRANT

Technical Data			
Service	chilled, hot water, up to 60% glycol		
Flow Characteristic	equal percentage		
Controllable Flow Range	75°		
Size [mm]	0.75" [20]		
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	No Disc (full flow)		
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	14		
Weight	0.7 lb [0.3 kg]		
Leakage	0% for A to AB		
Servicing	maintenance free		



# **Application**

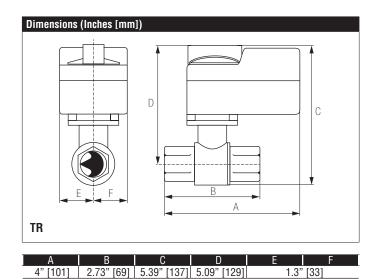
This valve is typically used in air handling units on heating or cooling coils, and fan coil unit heating or cooling coils. Some other common applications include Unit Ventilators, VAV box re-heat coils and bypass loops. This valve is suitable for use in a hydronic system with variable flow.

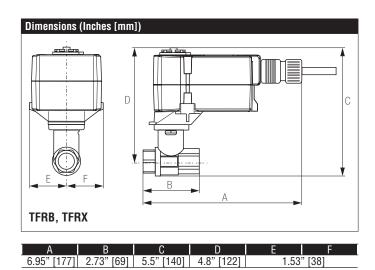
**Suitable Actuators** 

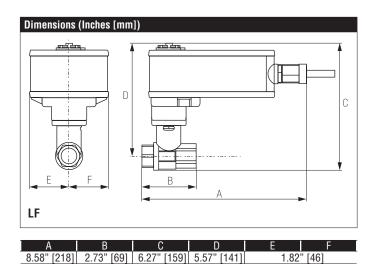
	Non-Spring	Spring		
B220B	TR, LR	TFR, LF		



Α	В	С	D	Е	F	H1	H2
9.4"	2.73"	5.79"	5.09"	1.3"	[33]	1.18"	1" [25]
[239]	[69]	[147]	[129]			[30]	







# LF24-3 US, Valve Actuator Floating Point, Spring Return, 24 V







24 VAC, ±20%, 50/60 Hz, 24 VDC, ±10%			
2.5 W			
1 W			
5 VA (class 2 power source)			
3ft [1m], 18 GA appliance cable with 1/2" conduit connector			
electronic throughout 0° to 95° rotation			
floating point			
1000 Ω (0.6 W)			
No Feedback			
90°			
reversible with built-in switch			
reversible with CW/CCW mounting			
visual indicator, 0° to 95° (0° is full spring return position)			
150 sec			
<25 sec @ -4°F to 122°F [-20°C to 50°C], <60 sec @ -22°F [-30°C]			
-22°F to 122°F [-30°C to 50°C]			
-40°F to 176°F [-40°C to 80°C]			
NEMA 2, IP54			
cULus acc. To UL 873 and CAN/CSA C22.2 No. 24-93			
<50 dB (A)			
<62 dB (A)			
maintenance free			
ISO 9001			

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





### Wiring Diagrams



# X INSTALLATION NOTES



Actuators with appliance cables are numbered.



Provide overload protection and disconnect as required.



Actuators may also be powered by 24 VDC.



Actuators Hot wire must be connected to the control board common. Only connect common to neg. (-) leg of control circuits. Terminal models (-T) have no-feedback.



Actuators may be connected in parallel if not mechanically linked. Power consumption and input impedance must be observed.



Meets cULus requirements without the need of an electrical ground



## 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.

