Date created, 10/27/2017 - Subject to change. © Belimo Aircontrols (USA), Inc.

B220, **2-Way**, **Characterized Control Valve** Stainless Steel Ball and Stem







VEAR
WARRANTY

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	stainless steel
Stem	stainless steel
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

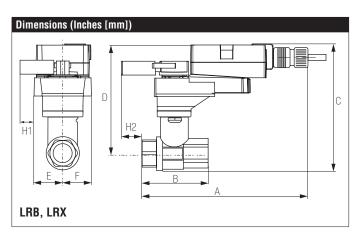


Application

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

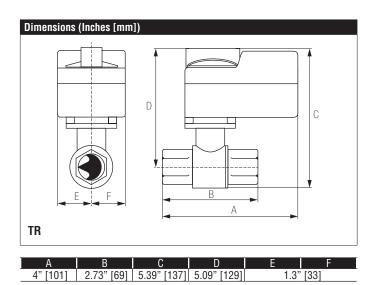
	Non-Spring	Spring
B220	TR, LR, NR	TFR, LF

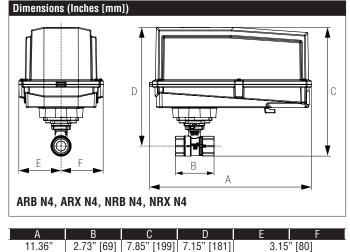


Α	В	С	D	E	F	H1	H2
9.4"	2.73"	5.79"	5.09"	1.3"	[33]	1.18"	1" [25]
[239]	[69]	[147]	[129]			[30]	

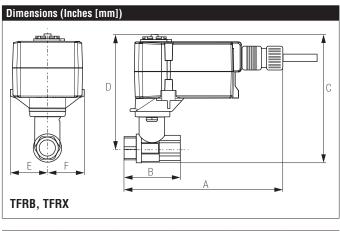
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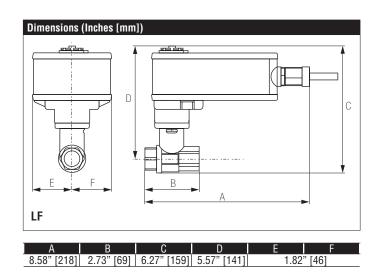




[289]



Α	В	C	D	Ε	F
6.95" [177]	2.73" [69]	5.5" [140]	4.8" [122]	1.53	" [38]



TR24-SR US

Modulating, Non-Spring Return, 24 V, for 2 to 10 VDC or 4 to 20 mA





24 VAC ± 20%, 50/60 Hz, 24 VDC ± 10%		
0.5 W		
1 VA (class 2 power source)		
3ft [1m], 18 GA plenum rated cable		
electronic throughout full rotation		
2 to 10 VDC, 4 to 20 mA w/ ZG-R01 (500 Ω , 1/4 W resistor)		
100 k Ω for 2 to 10 VDC (0.1 mA), 500 Ω for 4 to 20 mA		
90°		
reversible with protected switch		
integrated into handle		
push down handle		
90 sec		
-22°F to 122°F [-30°C to 50°C]		
-40°F to 176°F [-40°C to 80°C]		
NEMA type 1 / IP40		
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)		
maintenance free		
ISO 9001		

 \uparrow Rated impulse voltage 500V, Control pollution degree 2, Type of action 1. NOTE: Response Sensitivity is 75 mV





Modulating, Non-Spring Return, 24 V, for 2 to 10 VDC or 4 to 20 mA

Wiring Diagrams



X INSTALLATION NOTES



Provide overload protection and disconnect as required.

Only connect common to negative (-) leg of control circuits.



Actuators may also be powered by 24 VDC.



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



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 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.

