B221, 2-Way, Characterized Control Valve Stainless Steel Ball and Stem





L H
WARRANTY

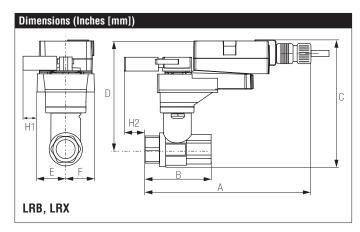
Technical Data	
Service	chilled, hot water, up to 60% glycol
Flow Characteristic	equal percentage
Controllable Flow Range	75°
Size [mm]	0.75" [20]
End Fitting	NPT female ends
Body	forged brass, nickel plated
Ball	stainless steel
Stem	stainless steel
Stem Packing	EPDM (lubricated)
Seat	Teflon® PTFE
Seat 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	24
Weight	0.9 lb [0.4 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.

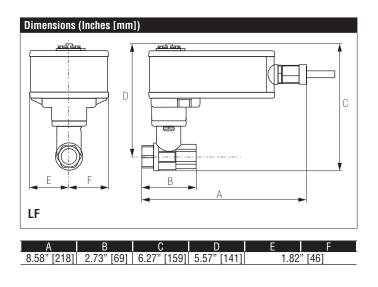
Suitable Actuators			
	Non-Spring	Spring	
B221	LR, NR	LF	

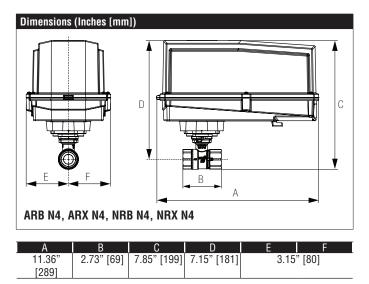


A	В	C	D	E	F	H1	H2
9.4"	2.73"	5.79"	5.09"	1.3"	[33]	1.18"	1" [25]
[239]	[69]	[147]	[129]			[30]	



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





CE	LISTED 94 D5 TEMP. IND. & CUUUS REG. EQUIP.	

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



Floating Point, Spring Return, 24 V

Wiring Diagrams

🔀 INSTALLATION NOTES

A Actuators with appliance cables are numbered.

Provide overload protection and disconnect as required.



Actuators may also be powered by 24 VDC.

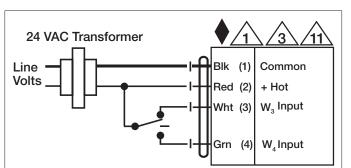
Actuators Hot wire must be connected to the control board common. Only connect common to neg. (-) leg of control circuits. Terminal models (-T) have no-feedback.

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

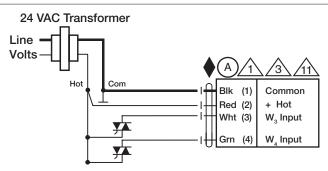
Meets cULus requirements without the need of an electrical ground connection.

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.







Floating Point - Triac Source

