

2-way, Characterized Control Valve, Stainless Steel Ball and Stem





5-year warranty



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Туре	DN
B221	20

Technical data

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0.75" [20]		
chilled or hot water, up to 60% glycol		
0250°F [-18120°C]		
600 psi		
200 psi		
equal percentage		
0% for A – AB		
Internal thread NPT (female)		
maintenance-free		
2-way		
75°		
24		
TRUE		

Materials

Valve body	Nickel-plated brass body
Stem	stainless steel
Stem seal	EPDM (lubricated)
Seat	PTFE
Characterized disc	TEFZEL®
O-ring	EPDM (lubricated)
Ball	stainless steel
Non Fail-Safe	LRB(X)

Suitable actuators

Non Fail-Safe	LRB(X)	
	LRQB(X)	
	NRB(X) N4	
Spring	LF	

Safety notes



 WARNING: This product can expose you to lead which is known to the State of California to cause cancer and reproductive harm. For more information go to www.p65warnings.ca.gov

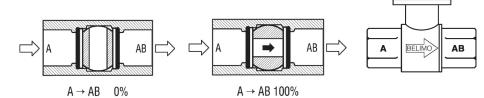


Product features

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.

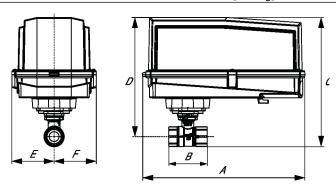
Flow/Mounting details



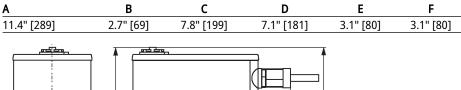
Two-way valves should be installed with the disc upstream.

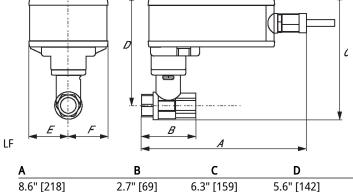
Dimensions

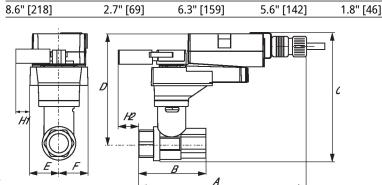
Туре	DN	Weight
B221	20	0.90 lb [0.41 kg]



ARB N4, ARX N4, NRB N4, NRX N4







LRB, LRX

1.8" [46]

Ε



Technical data sheet B221

Dimensions

Α	В	С	D	E	F	H1	H2
9.4" [239]	2.7" [69]	5.8" [147]	5.1" [129]	1.3" [33]	1.3" [33]	1.2" [30]	1" [25]



On/Off, Spring return, 24 V



Technical data		
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Electrical data	Nominal voltage	AC/DC 24 V
	Nominal voltage frequency	50/60 Hz
	Nominal voltage range	AC 19.228.8 V / DC 21.628.8 V
	Power consumption in operation	5 W
	Power consumption in rest position	2.5 W
	Transformer sizing	7 VA
	Electrical Connection	18 GA appliance cable, 3 ft [1 m], with 1/2" NPT conduit connector
	Overload Protection	electronic throughout 095° rotation
Functional data	Direction of motion motor	selectable with switch 0/1
	Direction of motion fail-safe	reversible with cw/ccw mounting
	Angle of rotation	90°
	Running Time (Motor)	75 s / 90°
	Running time fail-safe	<25 s @ -4122°F [-2050°C], <60 s @ -22°F [-30°C]
	Noise level, motor	50 dB(A)
	Noise level, fail-safe	62 dB(A)
	Position indication	Mechanical
Safety data	Power source UL	Class 2 Supply
	Degree of protection IEC/EN	IP54
	Degree of protection NEMA/UL	NEMA 2
	Enclosure	UL Enclosure Type 2
	Agency Listing	cULus acc. To UL 873 and CAN/CSA C22.2 No. 24-93
	Quality Standard	ISO 9001
	UL 2043 Compliant	Suitable for use in air plenums per Section 300.22(C) of the NEC and Section 602 of the IMC
	Ambient humidity	Max. 95% RH, non-condensing
	Ambient temperature	-22122°F [-3050°C]
	Storage temperature	-40176°F [-4080°C]
	Servicing	maintenance-free
Weight	Weight	0
Materials	Housing material	galvanized steel

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



Electrical installation

X INSTALLATION NOTES

Actuators with appliance cables are numbered.

 $\overline{\Lambda}$ Provide overload protection and disconnect as required.

Actuators may also be powered by DC 24 V.

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.

Wiring diagrams

On/Off

