

3-way Mixing/Diverting, Characterized Control Valve, Chrome Plated Brass Ball and Nickel Plated Brass Stem









Type overview	
Туре	DN
B310B	15

## **Technical data**

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Valve size [mm]	0.5" [15]	
Fluid	chilled or hot water, up to 60% glycol	
Fluid Temp Range (water)	0250°F [-18120°C]	
Body Pressure Rating	600 psi	
Close-off pressure Δps	200 psi	
Flow	A-port: as stated in chart B-port: 70% of A – AB Cv	
Flow characteristic	A-port Equal percentage; B-port modified linear for constant flow	
Pipe connection type	Internal thread NPT (female)	
Servicing	maintenance-free	
Flow Pattern	3-way Mixing/Diverting	
Leakage rate	0% for A – AB, <2.0% for B – AB	
Controllable flow range	75°	
Cv	1.2	

#### Materials

Valve body	Nickel-plated brass body	
Stem	nickel-plated brass	
Stem seal	EPDM (lubricated)	
Seat	PTFE	
Characterized disc	TEFZEL®	
O-ring	EPDM (lubricated)	
Ball	chrome plated brass	
Non-Spring	TR LRB(X)	
Spring	TFB(X)	

## Safety notes



Suitable actuators

• 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

LF

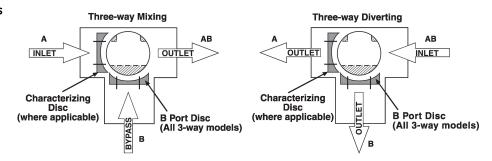


# Product features

### **Application**

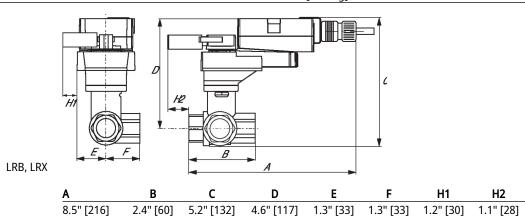
This valve is typically used in air handling units on heating or cooling coils, and fan coil unit heating or cooling coils. Some other common applications include Unit Ventilators, VAV box reheat coils and bypass loops. This valve is suitable for use in a hydronic system with variable or constant flow.

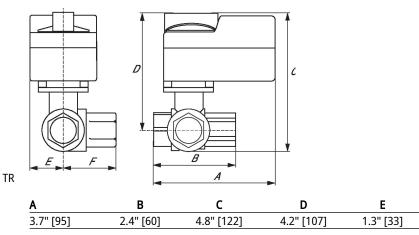
## Flow/Mounting details

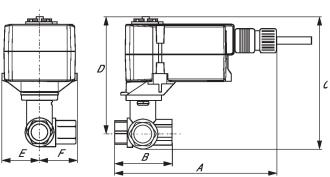


#### **Dimensions**

Туре	DN	Weight
B310B	15	0.59 lb [0.27 kg]





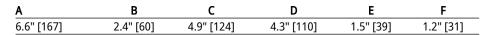


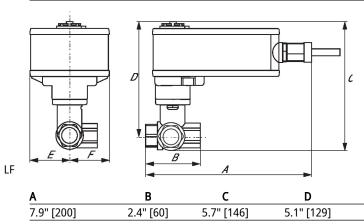
TFRB, TFRX

1.2" [31]



**Technical data sheet** B310B





5.7" [146]

5.1" [129]

1.9" [48]

1.8" [46]

2.4" [60]



On/Off, Floating point, Non fail-safe, 100...240 V







echnical data		
Electrical data	Nominal voltage	AC 100240 V
	Nominal voltage frequency	50/60 Hz
	Nominal voltage range	AC 85265 V
	Power consumption in operation	2 W
	Power consumption in rest position	0.5 W
	Transformer sizing	4 VA
	Electrical Connection	18 GA appliance cable, 1 m, with 1/2" NPT conduit connector
	Overload Protection	electronic throughout 095° rotation
	Electrical Protection	actuators are double insulated
Functional data	Direction of motion motor	selectable with switch 0/1
	Manual override	external push button
	Angle of rotation	90°
	Angle of rotation note	adjustable with mechanical stop
	Running Time (Motor)	90 s / 90°
	Noise level, motor	35 dB(A)
	Position indication	Mechanical, pluggable
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 UL60730-1A/-2-14, CAN/CSA E60730-1:02 CE acc. to 2014/30/EU and 2014/35/EU
	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	1.0 lb [0.47 kg]

**Footnotes** †Rated Impulse Voltage 4kV, Type of action 1, Control Pollution Degree 3.

Materials

Housing material

Galvanized steel and plastic housing



#### **Electrical installation**

## **X** INSTALLATION NOTES

(A) Actuators with appliance cables are numbered.

 $\mathbf{\chi}$  Provide overload protection and disconnect as required.

Actuators may be connected in parallel. 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

