

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







# Type overview

Туре	DN
B207	15

#### **Technical data**

Functional data	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 characteristic	equal percentage		
	Leakage rate	0% for A – AB		
	Pipe connection	Internal thread		
		NPT (female)		
	Servicing	maintenance-free		
	Flow Pattern	2-way		
	Controllable flow range	75°		
	Cv	0.3		
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		
Suitable actuators	Non Fail-Safe	TR		
		LRB(X)		
		LRQB(X)		
		NRB(X) N4		
	Spring	TFRB(X)		
		LF		

#### Safety notes



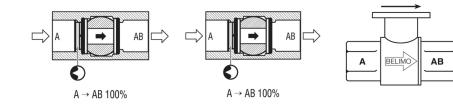
• WARNING: This product can expose you to lead which is known to the State of California to cause cancer and reproductive harm. For more information go to www.p65warnings.ca.gov



#### Product features

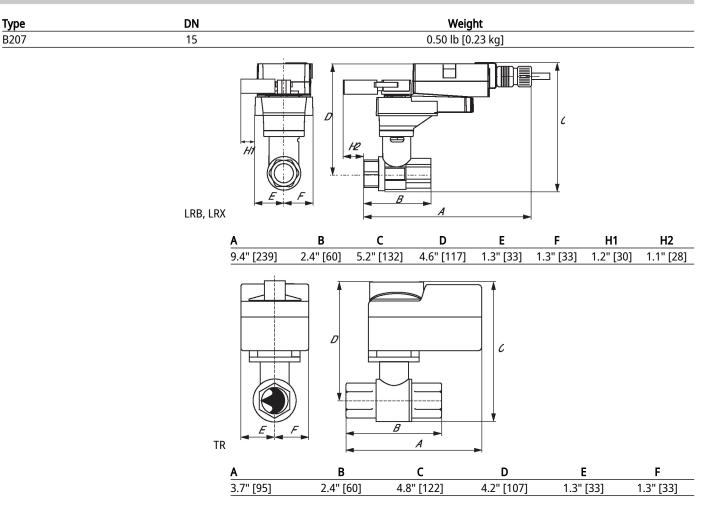
Application This valve is typically used in air handling units on heating or cooling coils, and fan coil unit heating or cooling coils. Some other common applications include Unit Ventilators, VAV box re-heat coils and bypass loops. This valve is suitable for use in a hydronic system with variable flow.

#### Flow/Mounting details



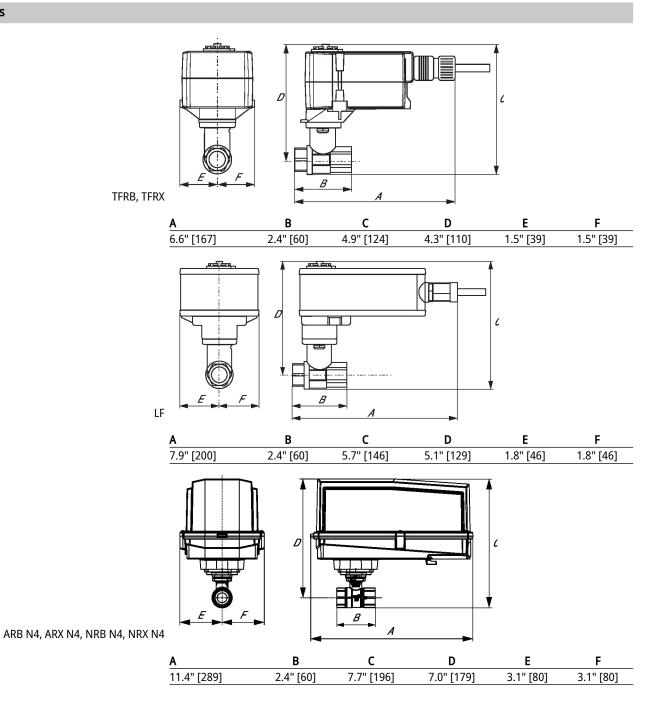
Two-way valves should be installed with the disc upstream.

# Dimensions











### On/Off, Spring return, 100...240 V





# **Technical data**

Electrical data	Nominal voltage	AC 100240 V		
	Nominal voltage frequency	50/60 Hz		
	Nominal voltage range	AC 85265 V		
	Power consumption in operation	2.5 W		
	Power consumption in rest position	1.3 W		
	Transformer sizing	5 VA		
	Auxiliary switch	1x SPDT, 1 mA3 A (0.5 A inductive), DC 5 VAC 250 V, adjustable 095°		
	Switching capacity auxiliary switch	1 mA3 A (0.5 A inductive), DC 5 VAC 250 V		
	Electrical Connection	(2) 18 GA appliance cables, 3 ft [1 m], with 1/2" NPT conduit connectors		
	Overload Protection	electronic throughout 095° rotation		
Functional data	Position feedback U note	No Feedback		
	Direction of motion motor	selectable by ccw/cw mounting		
	Direction of motion fail-safe	reversible with cw/ccw mounting		
	Angle of rotation	Max. 95°		
	Running Time (Motor)	75 s		
	Running time fail-safe	<75 s		
	Noise level, motor	50 dB(A)		
	Noise level, fail-safe	50 dB(A)		
	Position indication	Mechanical		
Safety data	Power source UL	Class 2 Supply		
	Degree of protection IEC/EN	IP42		
	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		
	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	1.6 lb [0.70 kg]		



Technical data sheet

TFRB120-S

Technical data				
	Materials	Housing material	UI	IL94-5VA
	Footnotes	†Rated Impulse Voltage 800V, Type of action 1.AA, Control Pollution Degree 3		
Electrical installation				
		Provide overload prote Actuators may be conn- observed. One built-in auxiliary sv etc. Apply only AC line volta Mixed or combined ope Meets cULus requireme <b>Warning! Live electrical</b> During installation, test to work with live electri who has been properly	vitch (1x SPDT), for end posi ge or only UL-Class 2 voltag ration of line voltage/safety ents without the need of an <b>components!</b> ing, servicing and troublesh cal components. Have a qua trained in handling live elect trical safety precautions wh	uired. Isumption and input impedance must be ition indication, interlock control, fan startu ge to the terminals of auxiliary switches. y extra low voltage is not allowed. electrical ground connection. hooting of this product, it may be necessary alified licensed electrician or other individua ctrical components perform these tasks. nen exposed to live electrical components
<b>Wiring diagrams</b> On/Off			Auxiliary Switches	
100 to 240 VAC				
Line Wht N Volts Blk L		<ul><li>(1) Neutral</li><li>(2) Load</li></ul>	$\begin{array}{c} \mathbf{S1} \\ \mathbf{S2} \\ \mathbf{S3} \\ \mathbf{NO} \end{array} \begin{array}{c} \mathbf{NC} \\ \mathbf{O}^{\circ} \text{ to } 95^{\circ} \end{array}$	•