B207 Technical Data Sheet
Stainless Steel Ball and Stem

5-year warranty

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.

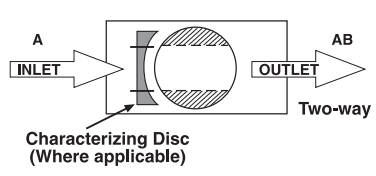
Suitable Actuators

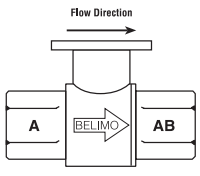
	Non-Spring	Spring
B207	TR, LRB(X), NR	TFRB(X), LF

Technical Data

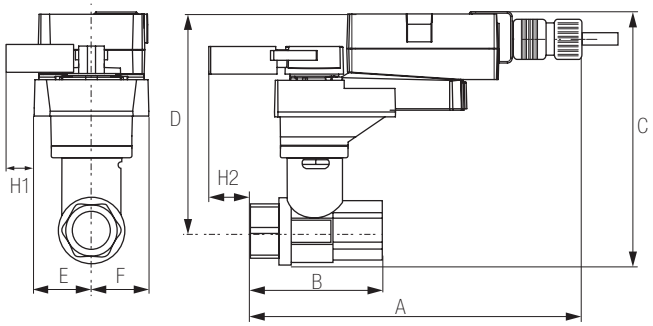
Fluid	chilled, hot water, up to 60% glycol
Flow characteristic	equal percentage
Controllable flow range	75°
Valve Size [mm]	0.5" [15]
Pipe connection	NPT female ends
Housing	Nickel-plated brass body
Ball	stainless steel
Stem	stainless steel
Stem seal	EPDM (lubricated)
Seat	PTFE
O-ring	EPDM (lubricated)
Characterised disc	TEFZEL®
Body Pressure Rating	600 psi
Close-off pressure Δps	200 psi
Cv	0.3
Weight	0.44 lb [0.20 kg]
Fluid Temp Range (water)	0...250°F [-18...120°C]
Leakage rate	0% for A – AB
Maintenance	maintenance-free

Flow/Mounting Details





Dimensions (Inches [mm])

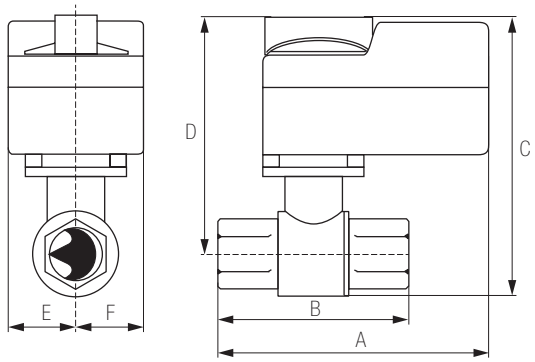


LRB, LRX

A	B	C	D	E	F	H1	H2
9.4" [239]	2.4" [60]	5.2" [132]	4.6" [117]	1.3" [33]		1.2" [30]	1.1" [28]

Safety Notes
WARNING: For Belimo products sold in California: these products do or may contain chemicals which are known to the State of California to cause cancer and or birth defects or other reproductive harms. For more information see www.p65warnings.ca.gov.

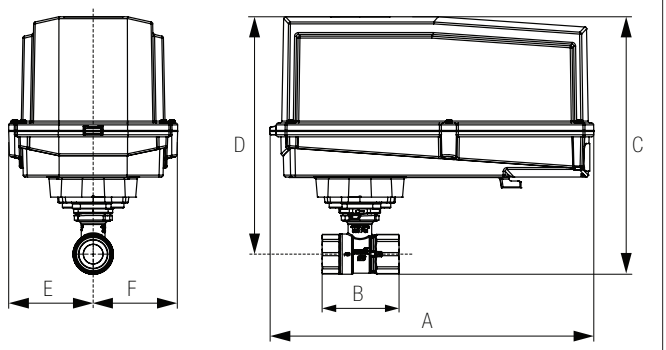
Dimensions (Inches [mm])



TR

A	B	C	D	E	F
3.7” [95]	2.4” [60]	4.8” [122]	4.2” [107]	1.3” [33]	

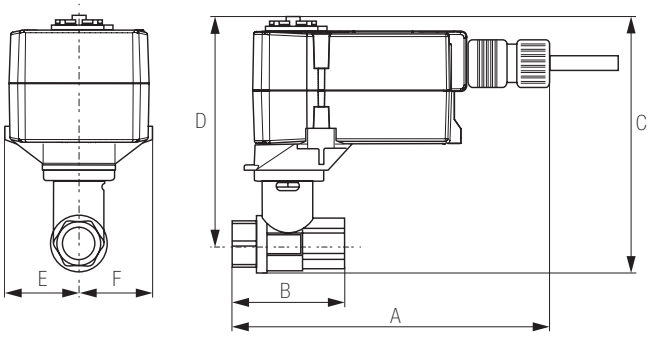
Dimensions (Inches [mm])



ARB N4, ARX N4, NRB N4, NRX N4

A	B	C	D	E	F
11.4” [289]	2.4” [60]	7.7” [196]	7.0” [179]	3.1” [80]	

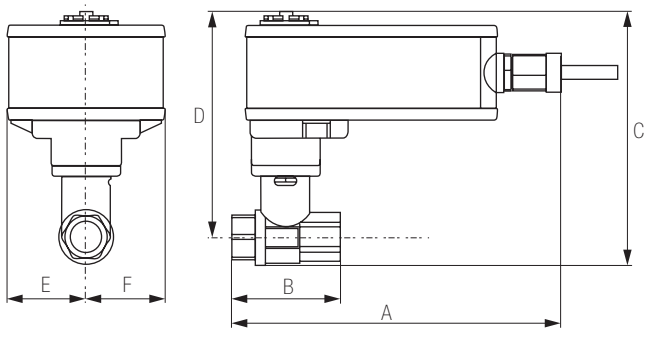
Dimensions (Inches [mm])



TFRB, TFRX

A	B	C	D	E	F
6.6” [167]	2.4” [60]	4.9” [124]	4.3” [110]	1.5” [39]	

Dimensions (Inches [mm])



LF

A	B	C	D	E	F
7.9” [200]	2.4” [60]	5.7” [146]	5.1” [129]	1.8” [46]	

TFRX24 Technical Data Sheet
On/Off, Spring Return, AC/DC 24 V

5-year warranty

Technical Data	
Power Supply	24 VAC, ±20%, 50/60 Hz, 24 VDC, ±10%
Power consumption in operation	2 W
Power consumption in rest position	1.3 W
Transformer sizing	5 VA (class 2 power source)
Electrical Connection	18 GA appliance or plenum cables, 3 ft [1 m], 10 ft [3 m] or 16ft [5 m], with 1/2" conduit connector
Overload Protection	electronic throughout 0...95° rotation
Position Feedback	No Feedback
Angle of rotation	Max. 95°, adjustable with mechanical stop
Torque motor	22 in-lb [2.5 Nm]
Direction of rotation motor	reversible with CW/CCW mounting
Direction of motion fail-safe	reversible with cw/ccw mounting
Position indication	Mechanical
Running Time (Motor)	<75 s
Running time fail-safe	<75 s
Ambient humidity	max. 95% r.H., non-condensing
Ambient temperature	-22...122°F [-30...50°C]
Storage temperature	-40...176°F [-40...80°C]
Degree of Protection	IP42, NEMA 2, UL Enclosure Type 2
Housing material	UL94-5VA
Noise level, motor	50 dB(A)
Noise level, fail-safe	50 dB(A)
Maintenance	maintenance-free
Quality Standard	ISO 9001
Weight	1.8 lb [0.80 kg]

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

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Wiring Diagrams

INSTALLATION NOTES

A Actuators with appliance cables are numbered.

1 Provide overload protection and disconnect as required.

2 Actuators may be connected in parallel. Power consumption and input impedance must be observed.

3 Actuators may also be powered by 24 VDC.

18 Actuators with plenum cable do not have numbers; use color codes instead.

◆ 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.