B307B, 3-Way, Characterized Control Valve Chrome Plated Brass Ball and Nickel Plated Brass Stem







NA WA	RRANT

chilled, hot water, up to 60% glycol
A-port Equal percentage; B-port modified
linear for constant flow
75°
0.5" [15]
NPT female ends
forged brass, nickel plated
chrome plated brass
nickel plated brass
EPDM (lubricated)
Teflon® PTFE
EPDM (lubricated)
TEFZEL®
600
0°F to 250°F [-18°C to 120°C]
50 psi (345 kPa)
200 psi
0.3
0.7 lb [0.3 kg]
0% for A to AB, <2.0% for B to AB
maintenance free



Application

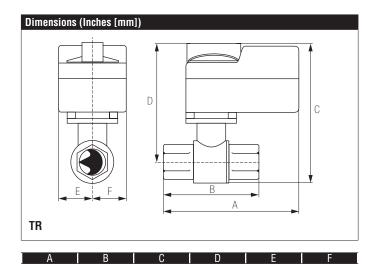
This valve is typically used in air handling units on heating or cooling coils, and fan coil unit heating or cooling coils. Some other common applications include Unit Ventilators, VAV box re-heat coils and bypass loops. This valve is suitable for use in a hydronic system with variable or constant flow.

Suitable Actuators

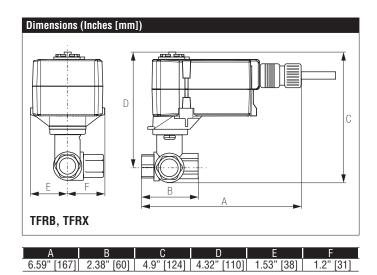
	Non-Spring	Spring
B307B	TR, LR	TFR, LF

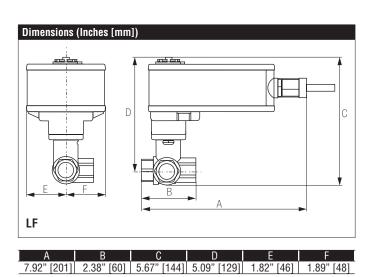


А	В	С	D	Е	F	H1	H2
8.5"	2.38"	5.19"	4.61"	1.3"	[33]	1.18"	1.1" [28]
[216]	[60]	[132]	[117]			[30]	



3.72" [95] | 2.38" [60] | 4.79" [122] | 4.21" [107] | 1.25" [32] | 1.2" [31]





TFRX120-S On/Off, Spring Return, 100 to 240 VAC





Technical Data	
Power Supply	100 to 240 VAC +10% / -15%, 50/60 Hz
Power Consumption Running	2.5 W
Power Consumption Holding	1.3 W
Transformer Sizing	5 VA (class 2 power source)
Electrical Connection	(2) 3ft [1m], 10ft [3m] or 16ft [5m] 18 GA appliance cables, with 1/2" conduit connectors
Overload Protection	electronic throughout 0° to 95° rotation
Operating Range Y	on/off
Feedback Output U	No Feedback
Angle of Rotation	Max. 95°, adjustable with mechanical stop
Direction of Rotation (Motor)	reversible with CW/CCW mounting
Direction of Rotation (Fail-Safe)	reversible with CW/CCW mounting
Position Indication	visual indicator, 0° to 95° (0° is full spring return position)
Running Time (Motor)	<75 sec
Running Time (Fail-Safe)	<75 sec
Ambient Humidity	max. 95% RH non-condensing
Ambient Temperature Range	-22°F to 122°F [-30°C to 50°C]
Storage Temperature Range	-40°F to 176°F [-40°C to 80°C]
Housing	NEMA 2, IP42, UL enclosure type 2
Housing Material	UL94-5VA
Agency Listings†	cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2004/108/EC
Noise Level (Motor)	<50 dB (A)
Noise Level (Fail-Safe)	<63 dB (A)
Servicing	maintenance free
Quality Standard	ISO 9001
Weight	1.8 lb [0.8 kg]
Auxiliary Switch	1 x SPDT, 3A resistive (0.5A inductive) @ 250 VAC, adjustable 0° to 95°

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





Wiring Diagrams



💢 INSTALLATION NOTES



Actuators with appliance cables are numbered.



Provide overload protection and disconnect as required.



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



One built-in auxiliary switch (1x SPDT), for end position indication, interlock control, fan startup, etc.



Apply only AC line voltage or only UL-Class 2 voltage to the terminals of auxiliary switches. Mixed or combined operation of line voltage/safety extra low voltage is not allowed.



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.

