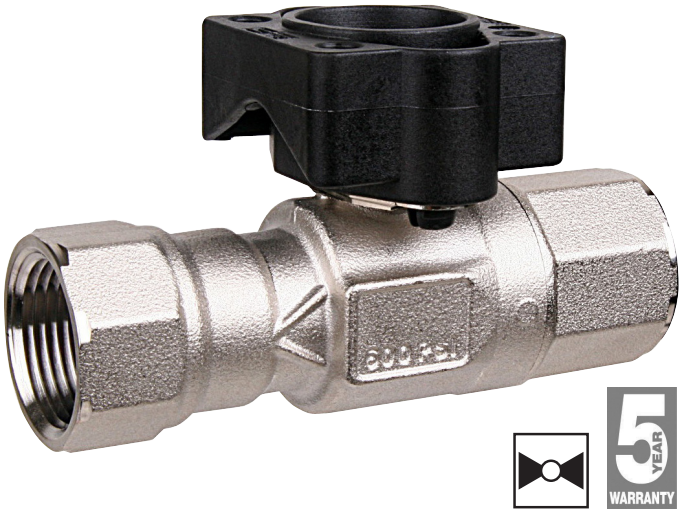
B215HT455, 1/2", High Temperature CCV
Stainless Steel Ball and Stem



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.
This valve is designed to fit in compact areas where on/off, floating point and modulating control is required using 24 VAC.

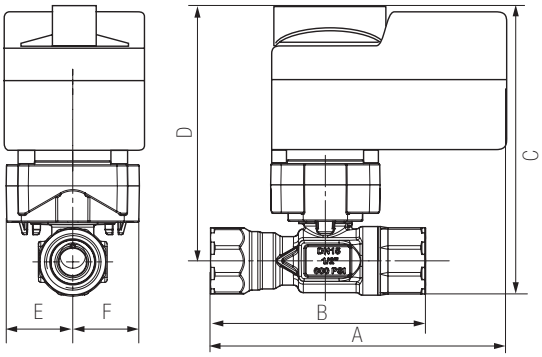
Suitable Actuators

	Non-Spring	Spring
B215HT455	TR, LR	TFR

Technical Data

Service	high temperature hot water/low pressure steam, up to 60% glycol
Flow Characteristic	A-port equal percentage
Controllable Flow Range	75°
Size [mm]	0.5" [15]
End Fitting	NPT female ends
Body	nickel plated brass (DZR) P-CuZn35Pb2
Ball	stainless steel
Stem	stainless steel
Stem Packing	Vition O-ring
Seat	ETFE
Seat O-ring	EPDM (lubricated)
Characterized Disc	ETFE
Body Pressure Rating [psi]	600
Max Inlet Pressure (Steam)	15 psi
Media Temperature Range (Water)	60°F to 266°F [16°C to 130°C]
Media Temperature Range (Steam)	250°F [120°C]
Maximum Differential Pressure (Steam)	15 psi
Max Differential Pressure (Water)	60 psi partially open ball, 116 psi full open (#B215HT455)
Close-Off Pressure	200 psi
Cv	4.55
Weight	0.7 lb [0.3 kg]
Leakage	0%
Servicing	maintenance free

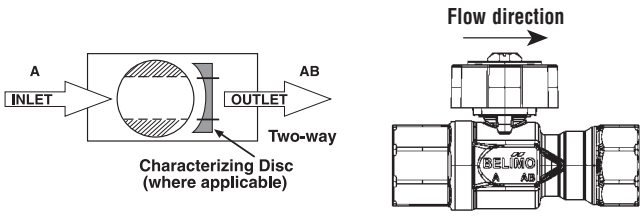
Dimensions (Inches [mm])



TR

A	B	C	D	E	F
4.16" [106]	3.33" [85]	5.44" [138]	4.91" [125]	1.48" [38]	

Flow Pattern



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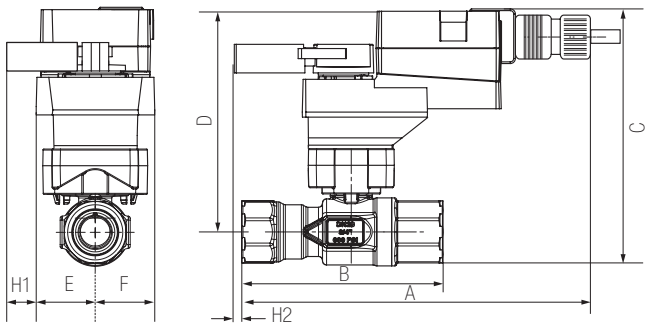
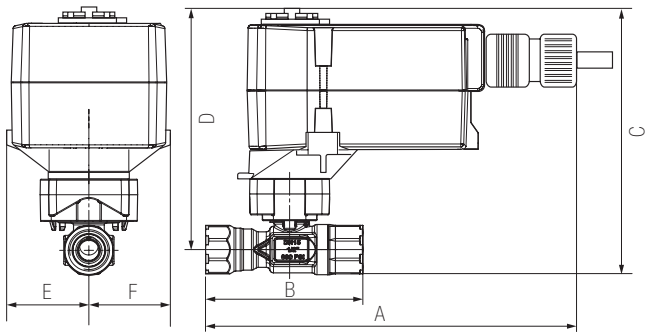


LRB, LRX

A	B	C	D	E	F	H1	H2
8.32” [211]	3.33” [85]	5.8” [147]	5.3” [135]	1.48” [38]		1.18” [30]	0.5” [15]

Dimensions (Inches [mm])



TFRB, TFRX

A	B	C	D	E	F
7.32” [186]	3.33” [85]	5.8” [147]	5.3” [135]	1.52” [39]	1.52” [38.5]

TFRB120-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], 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°, 90°
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

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.

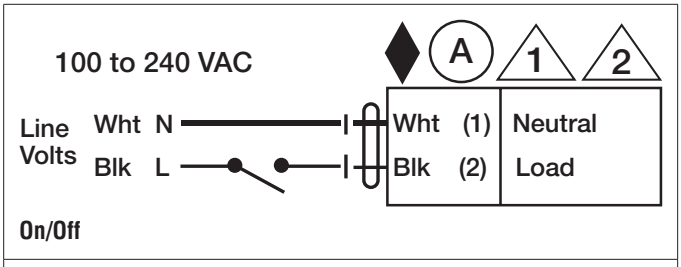
44 One built-in auxiliary switch (1x SPDT), for end position indication, interlock control, fan startup, etc.

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.

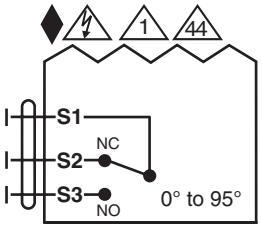
Meets cULus requirements without the need of an electrical ground connection.

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.



On/Off



Auxiliary Switches