

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





	DN	
	15	
a Valve size [mm]	0.5" [15]	
Fluid	high temperature hot water/low pressure steam, up to 60% glycol	
Fluid Temp Range (water)	60266°F [16130°C]	
Fluid Temp Range (steam)	250°F [120°C]	
Body Pressure Rating	600 psi	
Close-off pressure ∆ps	200 psi	
Flow characteristic	equal percentage	
Pipe connection	Internal thread NPT (female)	
Servicing	maintenance-free	
Max Differential Pressure (Steam)	15 psi	
Flow Pattern	2-way	
Leakage rate	0%	
Controllable flow range	75°	
Cv	0.29	
Maximum Inlet Pressure (Steam)	15 psi	
ls Valve body	Nickel-plated brass (DZR) P-CuZn35Pb2 stainless steel	
Stem		
Stem seal	Vition O-ring	
Seat	ETFE	
Characterized disc	ETFE	
O-ring	EPDM (lubricated)	
Ball	stainless steel	
	Fluid Temp Range (water) Fluid Temp Range (steam) Body Pressure Rating Close-off pressure \Delta ps Flow characteristic Pipe connection Servicing Max Differential Pressure (Steam) Flow Pattern Leakage rate Controllable flow range Cv Maximum Inlet Pressure (Steam) Stem Stem Stem Stem seal Seat Characterized disc O-ring	

Safety notes



Spring

• 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

TFRB(X)



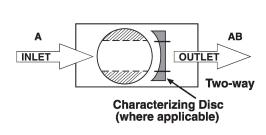
Product features

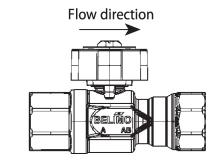
Application

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 flow.

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

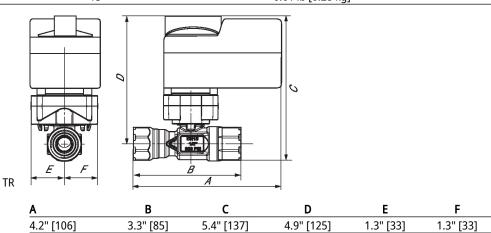
Flow/Mounting details

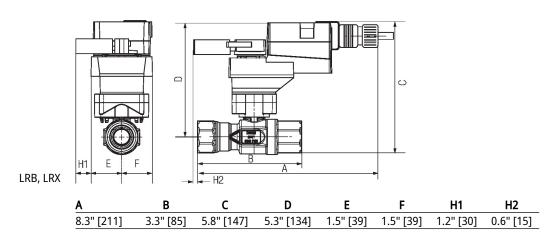




Dimensions

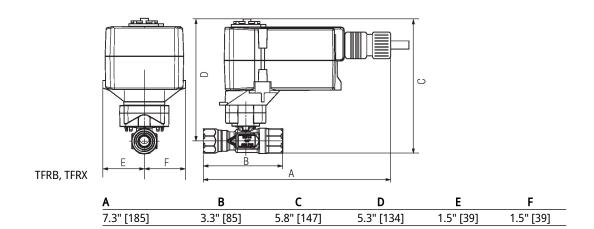
Туре	DN	Weight
B215HT029	15	0.61 lb [0.28 kg]







Dimensions



Technical data







Electrical data	Nominal voltage	AC/DC 24 V
	Nominal voltage frequency	50/60 Hz
	Nominal voltage range	AC 19.228.8 V / DC 21.628.8 V
	Power consumption in operation	0.5 W
	Transformer sizing	1 VA
	Electrical Connection	18 GA plenum cable, 1 m
	Overload Protection	electronic throughout full rotation
Functional data	Operating range Y	210 V
	Operating range Y note	420 mA w/ ZG-R01 (500 Ω , 1/4 W resistor)
	Input impedance	100 k Ω for 210 V (0.1 mA), 500 Ω for 420 m
	Direction of motion motor	selectable with switch
	Manual override	push down handle
	Angle of rotation	90°
	Running Time (Motor)	90 s / 90°
	Noise level, motor	35 dB(A)
	Position indication	integrated into handle
Safety data	Power source UL	Class 2 Supply
	Degree of protection IEC/EN	IP40
	Degree of protection NEMA/UL	NEMA 1
	Enclosure	UL Enclosure Type 1
	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

Footnotes Rated impulse voltage 500 V, control pollution degree 2, type of action 1.

NOTE: Response sensitivity is 75 mV



Accessories

Electrical accessories	Description	Туре	
	Battery backup system, for non-spring return models	NSV24 US	
	Battery, 12 V, 1.2 Ah (two required)	NSV-BAT	

Electrical installation

X INSTALLATION NOTES

A Provide overload protection and disconnect as required.

Actuators may also be powered by DC 24 V.

6 Only connect common to negative (-) leg of control circuits.

 \triangle A 500 Ω resistor (ZG-R01) converts the 4...20 mA control signal to 2...10 V.

Actuators may be connected in parallel if not mechanically linked. 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

