# **Technical data sheet**





Type overview	
Туре	DN
B215HT116	15

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Technical data		
Functional data	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 Δps	200 psi
	Flow characteristic	A-port equal percentage
	Servicing	maintenance-free
	Max Differential Pressure (Steam)	15 psi
	Flow Pattern	2-way
	Leakage rate	0%
	Controllable flow range	75°
	Cv	1.16
	Maximum Inlet Pressure (Steam)	15 psi
Materials	Valve body	Nickel-plated brass (DZR) P-CuZn35Pb2
	Spindle	stainless steel
	Spindle seal	Vition O-ring
	Seat	ETFE
	Characterized disc	ETFE
	Pipe connection	NPT female ends
	O-ring	EPDM (lubricated)
	Ball	stainless steel
Suitable actuators	Non Spring	TR
Suitable actuators	Non-Spring	LRB(X)
		LIBMY

# 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)

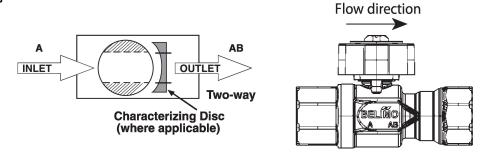


### **Product features**

### Application

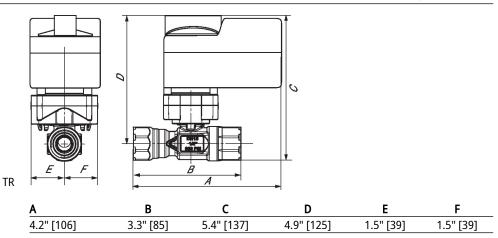
This valve is typically used in air handling units on heating or cooling coils, and fan coil unit heating or cooling coils. Some other common applications include unit ventilators, VAV box reheat coils and bypass loops. This valve is suitable for use in a hydronic system with variable flow. This valve is designed to fit in compact areas where on/off, floating point and modulating control is required using 24 VAC.

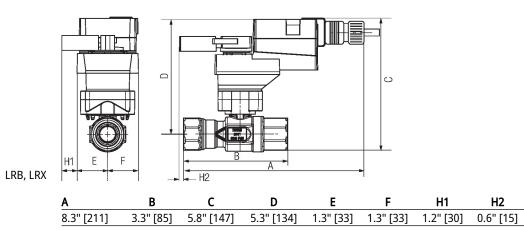
#### Flow/Mounting details



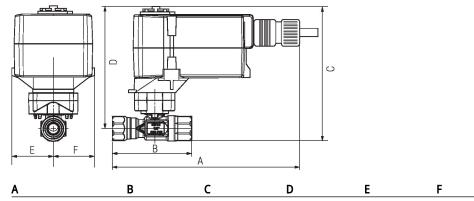
#### **Dimensions**

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B215HT116	15









TFRB, TFRX

Α	В	С	D	E	F
7.3" [185]	3.3" [85]	5.8" [147]	5.3" [134]	1.5" [39]	1.5" [39]



**Technical data** 







Electrical data	Nominal voltage	AC/DC 24 V
	Nominal voltage frequency	50/60 Hz
	Power consumption in operation	1.5 W
	Power consumption in rest position	0.2 W
	Power consumption for wire sizing	2 VA
	Transformer sizing	2.5 VA (class 2 power source)
	Electrical Connection	18 GA plenum cable, 3 ft [1 m], with 1/2" conduit connector
	Overload Protection	electronic thoughout 090° rotation
Functional data	Direction of motion motor	selectable with switch 0/1
	Manual override	external push button
	Angle of rotation	90°
	Angle of rotation note	adjustable with mechanical stop
	Running Time (Motor)	90 s / 90°
	Noise level, motor	35 dB(A)
	Position indication	Mechanically, pluggable
Safety data	Degree of protection IEC/EN	IP54
	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 Listed to UL 2043 - suitable for use in air plenums per Section 300.22(C) of the NEC and Section 602 of the IMC
	Quality Standard	ISO 9001
	Ambient temperature	-22122°F [-3050°C]
	Storage temperature	-40176°F [-4080°C]
	Ambient humidity	Max. 95% RH, non-condensing
	Servicing	maintenance-free
Matariala	Haveing material	

**Footnotes** †Rated Impulse Voltage 800V, Type action 1.B, Control Pollution Degree 3.

Materials

Housing material

Galvanized steel and plastic housing



#### **Accessories**

Description	Туре	
Battery backup system, for non-spring return models	NSV24 US	
Battery, 12 V, 1.2 Ah (two required)	NSV-BAT	
Auxiliary switch 1 x SPDT add-on	S1A	
Auxiliary switch 2 x SPDT add-on	S2A	
Feedback potentiometer 140 $\Omega$ add-on, grey	P140A GR	
Feedback potentiometer 1 k $\Omega$ add-on, grey	P1000A GR	
Feedback potentiometer 10 k $\Omega$ add-on, grey	P10000A GR	
Feedback potentiometer 2.8 kΩ add-on, grey	P2800A GR	
Feedback potentiometer 500 $\Omega$ add-on, grey	P500A GR	
Feedback potentiometer 5 k $\Omega$ add-on, grey	P5000A GR	

## **Electrical installation**

### **X** INSTALLATION NOTES

A Provide overload protection and disconnect as required.

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

Actuators may also be powered by DC 24 V.

Actuators Hot wire must be connected to the control board common. Only connect common to neg. (-) leg of control circuits. Terminal models (-T) have no-feedback.

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

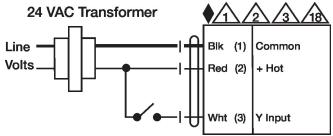
Meets cULus requirements without the need of an electrical ground connection.

#### Warning! Live electrical components!

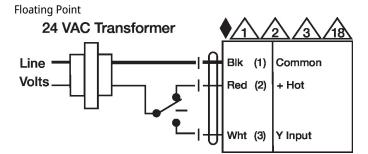
During installation, testing, servicing and troubleshooting of this product, it may be necessary to work with live electrical components. Have a qualified licensed electrician or other individual who has been properly trained in handling live electrical components perform these tasks. Failure to follow all electrical safety precautions when exposed to live electrical components could result in death or serious injury.

#### Wiring diagrams

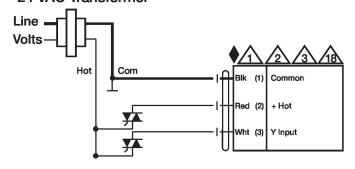




Electrical accessories



## 24 VAC Transformer



Floating Point - Triac Sink

