





5-year warranty



## **Technical data**

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Valve Size	0.5" [15]
Fluid	chilled or hot water, up to 60% glycol
Fluid Temp Range (water)	0250°F [-18120°C]
Body Pressure Rating	600 psi
Close-off pressure Δps	200 psi
Flow characteristic	equal percentage
Servicing	maintenance-free
Flow Pattern	2-way
Leakage rate	0% for A – AB
Controllable flow range	75°
Cv	16
No Characterized Disc	TRUE
Cv Flow Rating	A-port: as stated in chart B-port: 70% of A – AB Cv
Valve body	Nickel-plated brass body
Spindle	stainless steel

## Materials

Valve body	Nickel-plated brass body		
Spindle	stainless steel		
Spindle seal	EPDM (lubricated)		
Seat	PTFE		
Characterizing disc	No Disc (full flow)		
Pipe connection	NPT female ends		
O-ring	EPDM (lubricated)		
Ball	stainless steel		
Non-Spring	TR		

## **Suitable actuators**

Non-Spring	IR
	LRB(X)
	NR
Spring	TFRB(X)
	LF

## Safety notes



 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

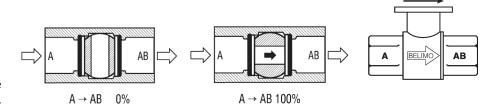
## **Product features**

## **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.



## Flow/Mounting details

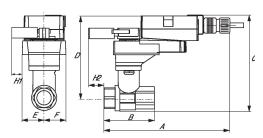


Two-way valves should be installed with the disc upstream.

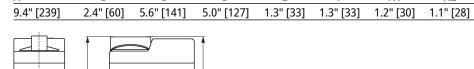
# Dimensions

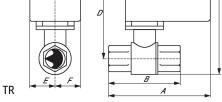


LRB, LRX



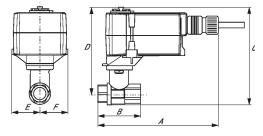
Туре	DN	Weight [kg] [kg]						
B216	15				0.30			
	Α	В	С	D	E	F	H1	H2





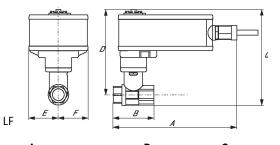
 A
 B
 C
 D
 E
 F

 3.7" [95]
 2.4" [60]
 5.2" [132]
 4.6" [117]
 1.3" [33]
 1.3" [33]



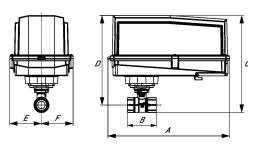
TFRB, TFRX

Α	В	С	D	E	F
6.6" [167]	2.4" [60]	5.5" [139]	4.7" [120]	1.5" [39]	1.5" [39]



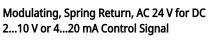
Α	В	C	U	E	F
7.9" [200]	2.4" [60]	6.1" [154]	5.5" [140]	1.3" [33]	1.3" [33]





ARB N4, ARX N4, NRB N4, NRX N4

Α	В	С	D	E	F
11.4" [289]	2.4" [60]	7.7" [196]	7.0" [179]	3.1" [80]	3.1" [80]









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Electrical data	Nominal voltage	AC/DC 24 V		
	Nominal voltage frequency	50/60 Hz		
	Power consumption in operation	2 W		
	Power consumption in rest position	1 W		
	Transformer sizing	4 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 095° rotation		
Functional data	Direction of motion motor	selectable with switch 0/1		
	Direction of motion fail-safe	reversible with cw/ccw mounting		
	Angle of rotation	Max. 95°, adjustable with mechanical stop		
	Angle of rotation note	adjustable with mechanical stop		
	Running Time (Motor)	95 s		
	Running time fail-safe	<25 s @ 68°F [20°C]		
	Noise level, motor	35 dB(A)		
	Noise level, fail-safe	62 dB(A)		
	Position indication	Mechanical		
Safety data	Degree of protection IEC/EN	IP42		
	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 and 2014/35/EU; Listed to UL 2043 - suitable for use in air plenums per Section 300.22(c) of the NEC and Section 602.2 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		
	Consisina	maintenance-free		
	Servicing			
Weight	Weight	1.8 lb [0.80 kg]		

# **Electrical installation**



INSTALLATION NOTES

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.

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

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

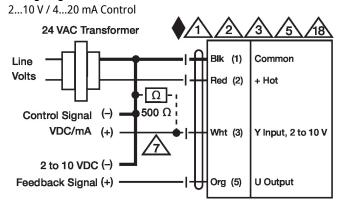
Actuators with plenum cable do not have numbers; use color codes instead.

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

## Marning! 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



## **Dimensions**