







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 ∆ps	200 psi		
Flow characteristic	equal percentage		
Servicing	maintenance-free		
Flow Pattern	2-way		
Leakage rate	0% for A – AB		
Controllable flow range	75°		
Cv	7.4		
Body pressure rating note	600 psi		
Cv Flow Rating	A-port: as stated in chart B-port: 70% of A – AB Cv		
Valve body	Nickel-plated brass body		
Stem seal	EPDM (lubricated)		
Seat	PTFE		
Pipe connection	NPT female ends		
O-ring	EPDM (lubricated)		
Ball	stainless steel		

Safety notes



Suitable actuators

Non-Spring

Materials

 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

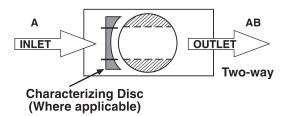
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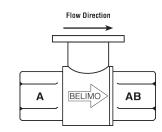
Product features

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 re-heat coils and bypass loops. This valve is suitable for use in a hydronic system with variable flow.

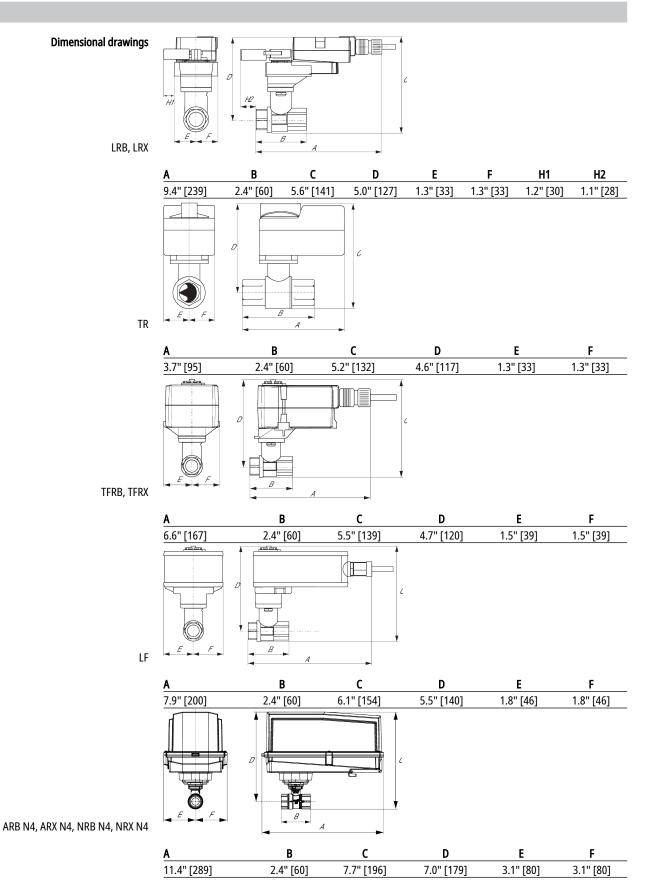
Flow/Mounting details



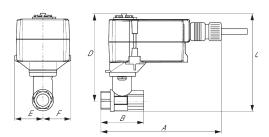




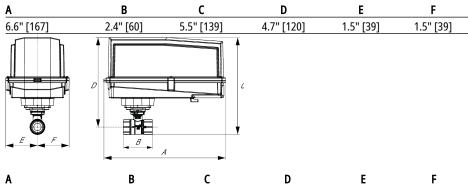
Dimensions







TFRB, TFRX



ARB N4, ARX N4, NRB N4, NRX N4

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

On/Off Floating Point, Non-Spring Return, 24 V







Nominal voltage	AC 24 V	
Nominal voltage frequency	50/60 Hz	
Power consumption in operation	1 W	
Transformer sizing	1 VA (class 2 power source)	
Electrical Connection	Screw terminal (for 26 to 14 GA wire)	
Overload Protection	electronic throughout full rotation	
Input Impedance	0.36 kΩ	
Manual override	push down handle	
Angle of rotation	90°	
Running Time (Motor)	90 s / 90°	
Noise level, motor	35 dB(A)	
Position indication	Mechanically, pluggable	
Degree of protection IEC/EN	IP40	
Degree of protection NEMA/UL	NEMA 1 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; 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% r.H., non-condensing	
Servicing	maintenance-free	
	Nominal voltage frequency Power consumption in operation Transformer sizing Electrical Connection Overload Protection Input Impedance Manual override Angle of rotation Running Time (Motor) Noise level, motor Position indication Degree of protection IEC/EN Degree of protection NEMA/UL Agency Listing Quality Standard Ambient temperature Storage temperature Ambient humidity	

Safety notes



- NEMA 4X, 316L stainless steel enclosure.
- Battery Back Up System for SY(7~10)-110
- ZS-300 without brackets.
- NEMA 4X, 304 stainless steel enclosure.
- MFT95 resistor kit for 4 to 20 mA control applications.

Electrical installation



> INSTALLATION NOTES

Provide overload protection and disconnect as required.

Actuators may also be powered by 24 VDC.

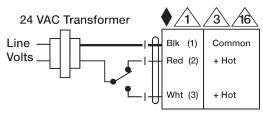
Actuators are provided with a numbered screw terminal strip instead of a cable.

Technical data sheet TR24-3-T US

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 AC 24 V Transformer