







#### **Technical data**

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Valve Size	0.75" [20]		
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	10		
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		

# Materials

Valve body	Nickel-plated brass body
Stem seal	EPDM (lubricated)
Seat	PTFE
Pipe connection	NPT female ends
0-ring	EPDM (lubricated)
Ball	stainless steel
Non-Spring	TR LRB(X)

## Safety notes



**Suitable actuators** 

 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

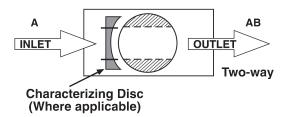
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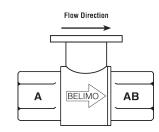
## **Product features**

# **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.

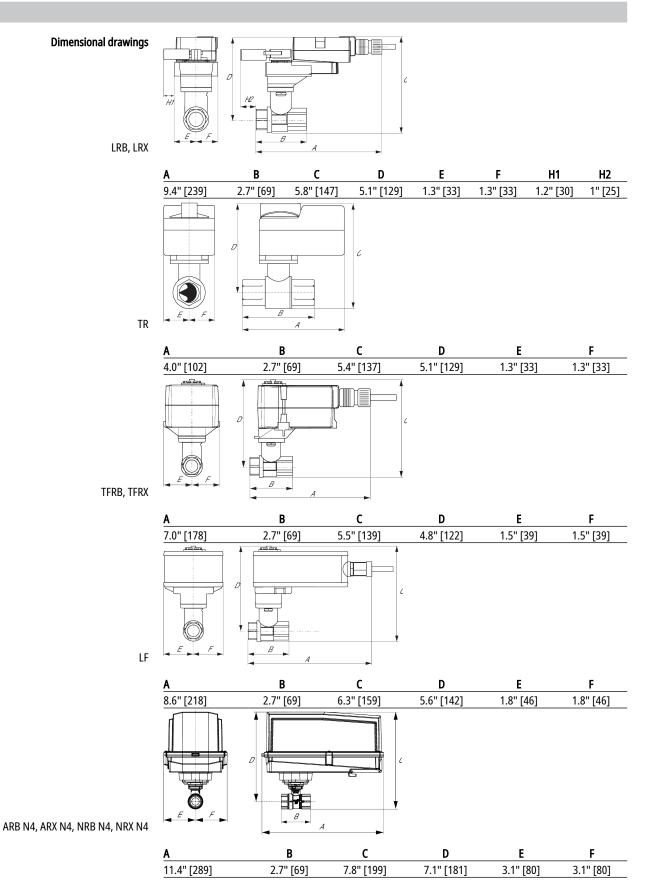
# Flow/Mounting details



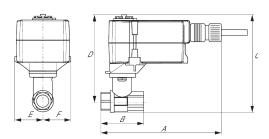




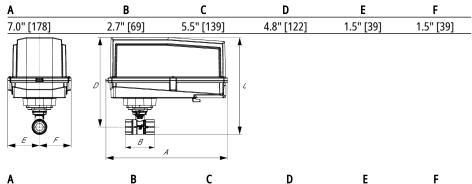
# **Dimensions**







TFRB, TFRX



ARB N4, ARX N4, NRB N4, NRX N4

A	В	C	D	E	F
11.4" [289]	2.7" [69]	7.8" [199]	7.1" [181]	3.1" [80]	3.1" [80]

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







echnical data		
Electrical data	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	Plenum cable 18 GA, 10 ft [3 m]
	Overload Protection	electronic throughout full rotation
Functional data	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
Safety data	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
Weight	Weight	0.86 lb [0.39 kg]
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## 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 cannot be wired in parallel.

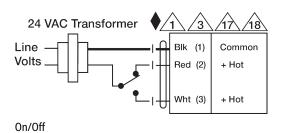
**Technical data sheet** TR24-3/300 US

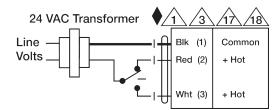
Actuators with plenum cable do not have numbers; use color codes instead.

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.





Floating Point