







Technical data

	ona	

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	1.2
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
Dina annuation	NDT formale and

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)

Suitable actuators

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

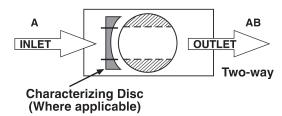
NR

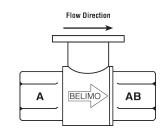
Product features

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.

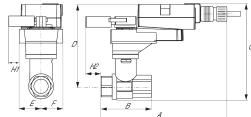
Flow/Mounting details



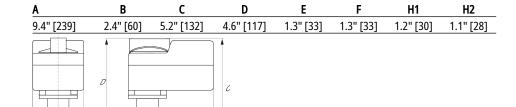






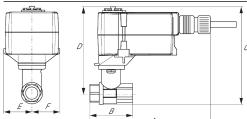


LRB, LRX

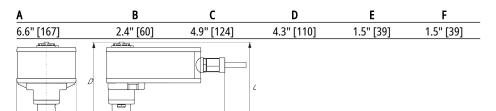


TR

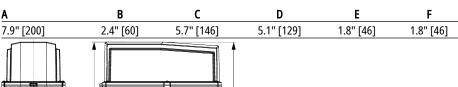




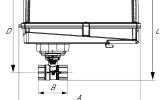
TFRB, TFRX



LF



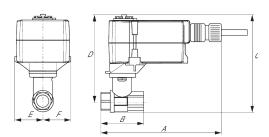




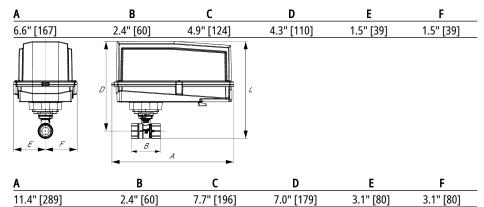
ARB N4, ARX N4, NRB N4, NRX N4

A	В	C	D	E	F
11.4" [289]	2.4" [60]	7.7" [196]	7.0" [179]	3.1" [80]	3.1" [80]
A	В	С	D	E	F
7.9" [200]	2.4" [60]	5.7" [146]	5.1" [129]	1.8" [46]	1.8" [46]





TFRB, TFRX



ARB N4, ARX N4, NRB N4, NRX N4

ww	naz b	olir	nn	110
77 77	W.L	/CIII	IIV.	us









Technical data

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	1.3 W
	Transformer sizing	5 VA (class 2 power source)
	Auxiliary switch	1 x SPDT, 3 A resistive (0.5 A inductive) @ AC 250 \ adjustable 095°
	Switching capacity auxiliary switch	3 A resistive (0.5 A inductive) @ AC 250 V
	Electrical Connection	(2) 18 GA appliance cables with 1/2" conduit connectors, 3 ft [1 m],
	Overload Protection	electronic throughout 095° rotation
Functional data	Position feedback U note	No Feedback
	Direction of motion motor	selectable by ccw/cw mounting
	Direction of motion fail-safe	reversible with cw/ccw mounting
	Angle of rotation	Max. 95°, 90°
	Angle of rotation note	90°
	Running Time (Motor)	75 s
	Running time fail-safe	<75 s
	Noise level, motor	50 dB(A)
	Noise level, fail-safe	50 dB(A)
	Position indication	Mechanical
Safety data	Degree of protection IEC/EN	IP42
	Degree of protection NEMA/UL	NEMA 2 UL Enclosure Type 2
	Agency Listing	cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2014/30/EU
	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

UL94-5VA

Electrical installation



Materials

Housing material

INSTALLATION NOTES

A Actuators with appliance cables are numbered.
Provide overload protection and disconnect as required.



Technical data sheet TFRB24-S

Actuators may be connected in parallel. Power consumption and input impedance must be observed. Actuators may also be powered by 24 VDC.

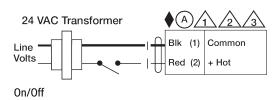
0ne built-in auxiliary switch (1x SPDT), for end position indication, interlock control, fan startup, etc.

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.

Apply only AC line voltage or only UL-Class 2 voltage to the terminals of auxiliary switches. Mixed or combined operation of line voltage/safety extra low voltage is not allowed.





Auxiliary Switches