







## Technical data

Functional data	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	
	Body pressure rating note	600 psi	
	Close-off pressure ∆ps	200 psi	
	Flow characteristic	A-port equal percentage, B-port modified for constant common port flow	
	Servicing	maintenance-free	
	Flow Pattern	3-way Mixing/Diverting	
	Leakage rate	0% for A – AB, <2.0% for B – AB	
	Controllable flow range	75°	
	Cv	4.7	
	Cv Flow Rating	A-port: as stated in chart B-port: 70% of A – AB Cv	
Materials	Valve body	Nickel-plated brass body	
	Stem	stainless steel	
	Stem seal	EPDM (lubricated)	
	Seat	PTFE	
	Characterizing disk	TEFZEL®	
	Pipe connection	NPT female ends	
	O-ring	EPDM (lubricated)	
	Ball	stainless steel	
Suitable actuators	Non-Spring	TR LRB(X) NRB(X) N4	
	Spring	TFB(X) LF	

# Safety notes

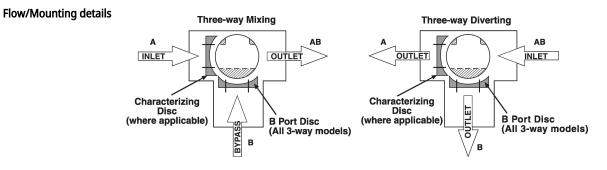


• WARNING: This product can expose you to lead which is known to the State of California to cause cancer and reproductive harm. For more information go to www.p65warnings.ca.gov

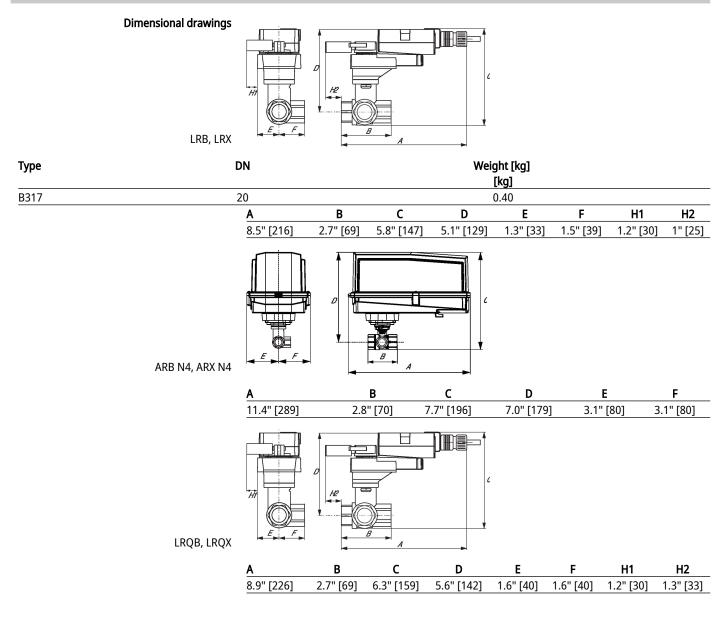


## **Product features**

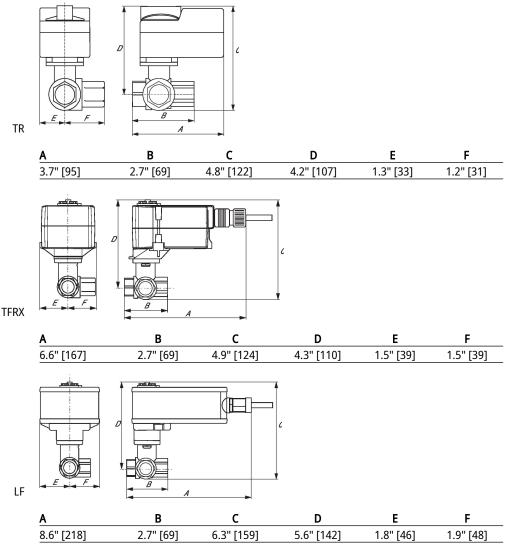
**Application** This valve is typically used in air handling units on heating or cooling coils, and fan coil unit heating or cooling coils. Some other common applications include Unit Ventilators, VAV box reheat coils and bypass loops. This valve is suitable for use in a hydronic system with variable or constant flow.



#### Dimensions







TFRB, TFRX

B317



**Technical data sheet** 

LRQX24-1





# **Technical data**

Electrical data	Nominal voltage	AC/DC 24 V
	Nominal voltage frequency	50/60 Hz
	Power consumption in operation	13 W
	Power consumption in rest position	1.5 W
	Transformer sizing	23 VA (class 2 power source) (Imax 20A @ 5ms)
	Electrical Connection	18 GA plenum cable with 1/2" conduit connector, degree of protection NEMA 2 / IP54, 3 ft [1 m] 10 ft [3 m] and 16ft [5 m]
	Overload Protection	electronic thoughout 090° rotation
	Electrical Protection	actuators are double insulated
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
	Noise level, motor	52 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
Weight	Weight	1.4 lb [0.65 kg]



Electrical 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 k $\Omega$ 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		
Viring diagrams	<ul> <li>Actuators may be connected in parallel. Power consumption an observed.</li> <li>Actuators may also be powered by DC 24 V.</li> <li>Actuators with plenum cable do not have numbers; use color conditional data and the second se</li></ul>	odes instead. ound connection. is product, it may be necessa ed electrician or other individ onents perform these tasks.
Dn/Off <b>24 VAC Transformer</b>		
	(1) Common	

## Dimensions