









Technical data

F	 ona	_	-4-

Valve Size	1.25" [32]	
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	

Materials

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

Safety notes



Suitable actuators

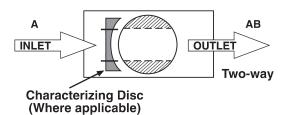
WARNING: This product can expose you to lead which is known to the State of California to cause cancer and reproductive harm. For more information go to www.p65warnings.ca.gov

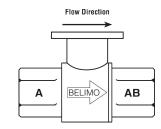
Product features

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.

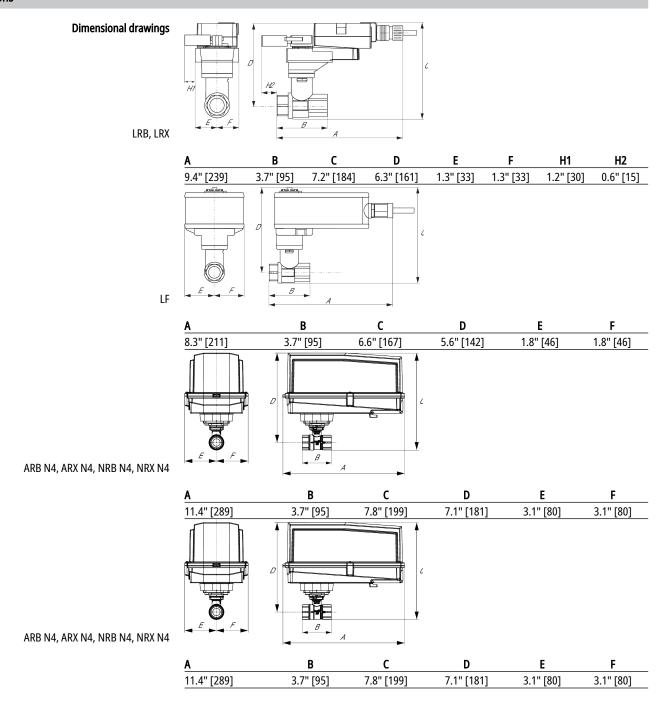
Flow/Mounting details







Dimensions



Modulating, Non-Spring Return, 24 V, for DC 2...10 V or 4...20 mA









l data			
Electrical data	Nominal voltage	AC/DC 24 V	
	Nominal voltage frequency	50/60 Hz	
	Power consumption in operation	1.5 W	
	Power consumption in rest position	0.2 W	
	Transformer sizing	3 VA (class 2 power source)	
	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	
Functional data	Operating range Y	210 V	
	Operating range Y note	420 mA w/ ZG-R01 (500 Ω, 1/4 W resistor)	
	Input Impedance	100 k Ω for 210 V (0.1 mA), 500 Ω for 420 mA	
	Position feedback U	210 V	
	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	
	Running Time (Motor)	default 90 s, variable 150, 90, 45, 35 s	
	Running time motor variable	150, 90, 45, 35 s	
	Noise level, motor	35 dB(A)	
Safety data	Position indication	Mechanically, pluggable	
	Degree of protection IEC/EN	IP54	
	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	

Safety notes



Weight Weight

- 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.

1.1 lb [0.50 kg]



Electrical installation

> INSTALLATION NOTES

1 Provide overload protection and disconnect as required.

Actuators may be connected in parallel. Power consumption and input impedance must be observed.

 $\sqrt{3}$ Actuators may also be powered by 24 VDC.

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

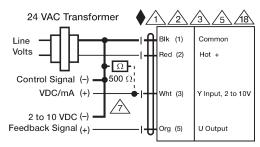
 \triangle A 500 Ω resistor (ZG-R01) converts the 4...20 mA control signal to 2...10 V.

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

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

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.



2...10 V / 4...20 mA Control