





5-year warranty



Type overview	
Туре	DN
B250	50

Technical data

Functional data

Valve size	2" [50]
Fluid	chilled or hot water, up to 60% glycol
Fluid Temp Range (water)	0250°F [-18120°C]
Body Pressure Rating	400 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	57
No Characterized Disc	TRUE
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	
Characterized disc	No Disc (full flow)	
Pipe connection	NPT female ends	
O-ring	EPDM (lubricated)	
Ball	stainless steel	
Non-Spring	ARB(X)	
Spring	AFRB(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

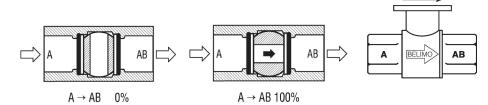


Product features

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

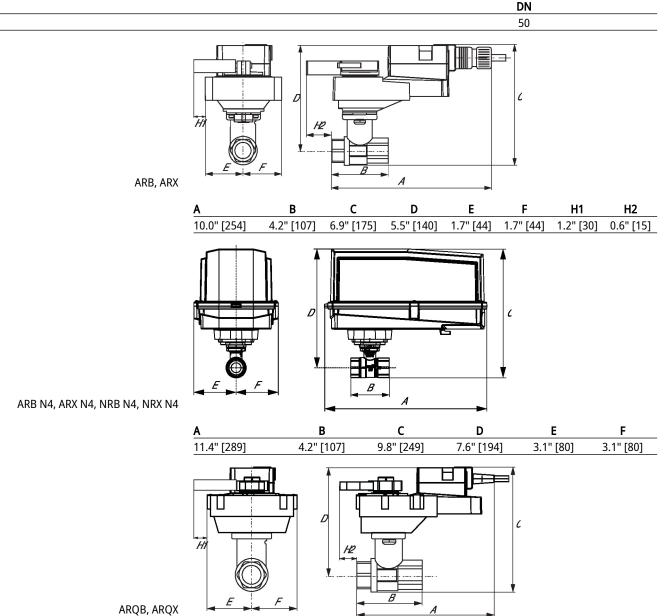
Flow/Mounting details



Two-way valves should be installed with the disc upstream.

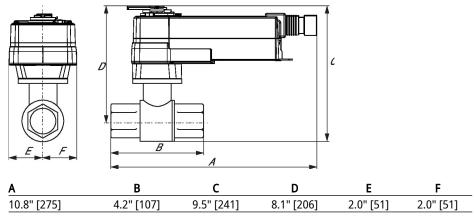
Dimensions

Туре	DN
B250	50

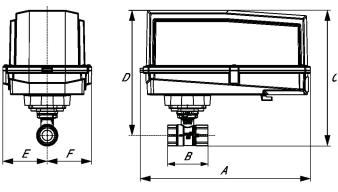


Α	В	С	D	E	F	H1	H2
9.9" [251]	4.2" [107]	7.5" [191]	6.1" [155]	2.3" [58]	2.3" [58]	0.8" [20]	0.6" [15]





AFRB, AFRX



AFRB N4, AFRX N4

Α	В	C	D	E	F
13.0" [330]	4.2" [107]	10.3" [262]	9.3" [235]	3.4" [86]	3.4" [86]

Technical data sheet

AFRX24 N4







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Electrical data	Nominal voltage	AC/DC 24 V		
Liecti icai data	Nominal voltage frequency	50/60 Hz		
	Power consumption in operation	5 W		
	Power consumption in rest position	2.5 W		
	Transformer sizing	7.5 VA (class 2 power source)		
	Electrical Connection	18 GA appliance cable, 3 ft [1 m], with 1/2" conduit connector		
	Overload Protection	electronic throughout 095° rotation		
Functional data	Direction of motion motor	selectable by ccw/cw mounting		
	Direction of motion fail-safe	reversible with cw/ccw mounting		
	Manual override	5 mm hex crank (3/16" Allen), supplied		
	Angle of rotation	90°		
	Running Time (Motor)	75 s / 90°		
	Running time fail-safe	<20 s		
	Noise level, motor	45 dB(A)		
	Noise level, fail-safe	62 dB(A)		
	Position indication	Mechanical		
Safety data	Degree of protection IEC/EN	IP66		
	Degree of protection NEMA/UL	NEMA 4X		
	Enclosure	UL Enclosure Type 4X		
	Agency Listing	cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2014/30/EU and 2014/35/EU		
	Quality Standard	ISO 9001		
	Ambient temperature	-22122°F [-3050°C]		
	Ambient temperature note	-4050°C for actuator with integrated heating		
	Storage temperature	-40176°F [-4080°C]		
	Ambient humidity	Max. 100% RH		
	Servicing	maintenance-free		
Materials	Housing material	Die cast aluminium and plastic casing		

Footnotes †Rated Impulse Voltage 800V, Type of action 1.AA, Control Pollution Degree 3

Electrical installation



INSTALLATION NOTES
Actuators with appliance cables are numbered.

Provide overload protection and disconnect as required.



Actuators may also be powered by DC 24 V.

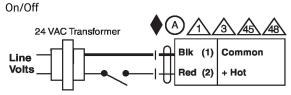
Actuators may be powered in parallel. Power consumption must be observed.

Parallel wiring required for piggy-back applications.

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

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.

Wiring diagrams



Dimensions