

Type overview

DN
80

Technical data

Functional data	Valve size [mm]	3" [80]
	Fluid	chilled or hot water, up to 60% glycol
	Fluid Temp Range (water)	0212°F [-18100°C]
	Body Pressure Rating	400 psi
	Close-off pressure Δps	100 psi
	Flow characteristic	equal percentage
	Servicing	maintenance-free
	Flow Pattern	2-way
	Leakage rate	0% for A – AB
	Controllable flow range	75°
	Cv	70
	Cv Flow Rating	A-port: as stated in chart B-port: 70% of A – Al
		Cv
Materials	Valve body	Nickel-plated brass body
	Spindle	stainless steel
	Spindle seal	EPDM (lubricated)
	Seat	PTFE
	Characterized disc	TEFZEL®
	Pipe connection	NPT female ends
	O-ring	EPDM (lubricated)
	Ball	stainless steel
Suitable actuators	Non-Spring	ARB(X)
	Spring	AFRB(X)

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

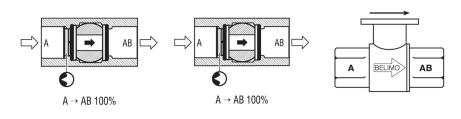
Application

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 flow.



Technical data sheet

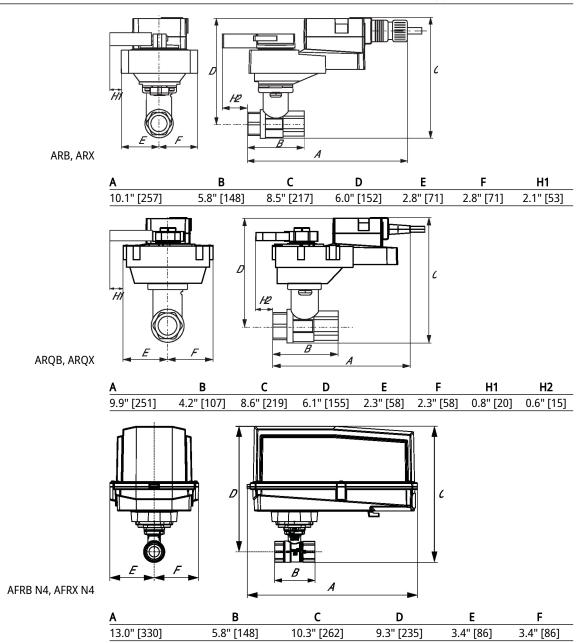
Flow/Mounting details



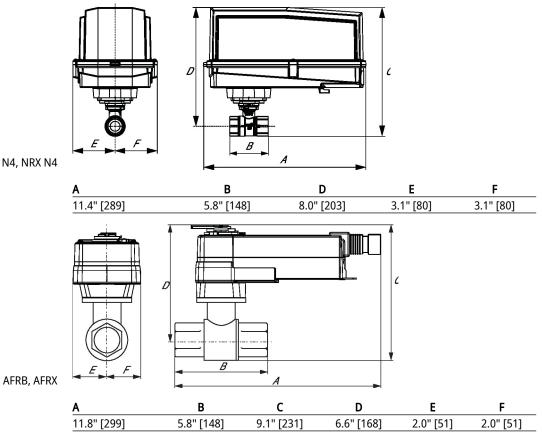
Two-way valves should be installed with the disc upstream.

Dimensions

Туре	DN
B277	80







ARB N4, ARX N4, NRB N4, NRX N4



Technical data sheet

ARX24-MFT-T

Modulating, Non-Spring Return, 24 V, Multi-Function Technology®





Technical data

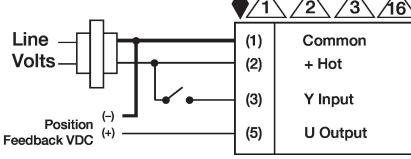
Electrical data	Nominal voltage	AC/DC 24 V
	Nominal voltage frequency	50/60 Hz
	Power consumption in operation	3.5 W
	Power consumption in rest position	1.3 W
	Transformer sizing	6 VA (class 2 power source)
	Electrical Connection	Terminal blocks
	Overload Protection	electronic throughout 095° rotation
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, 1500 Ω for PWM, On/Off and Floating point
	Operating range Y variable	Start point 0.530 V End point 2.532 V
	Options positioning signal	variable (VDC, on/off, floating point)
	Position feedback U	210 V
	Position feedback U note	Max. 0.5 mA
	Position feedback U variable	VDC variable
	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)	150 s / 90°
	Running time motor variable	90350 s
	Noise level, motor	45 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 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% RH, non-condensing
	Servicing	maintenance-free
Materials	Housing material	Galvanized steel and plastic housing



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

Accessories

Gateway MP to BACnet MS/TP UK24BAC Gateway MP to BACnet MS/TP UK24MOD Gateway MP to LonWorks UK24LON Electrical accessories Description Type Battery, 12.V, 12.Ah (two required) NSV24 US Battery, 12.V, 12.Ah (two required) NSV24 US Service Tool, with ZIP-USB function, for programmable and ZTH US communicative Belimo actuators, VAV controller and HVAC performance devices Service tools Description Type Connection cable 10 ft [3 m], A: RJ11 6/4 ZTH EU, B: 3-pin Weidmüller and ZK4-GEN supply connection Service Tool, with ZIP-USB function, for programmable and ZTH US communicative Belimo actuators, VAV controller and HVAC performance devices Actuators with appliance cables are numbered. Provide overload protection and disconnect as required. Actuators may be connected in parallel. Power consumption and input impedance must be observed. Actuators may also be powered by DC 24 V. Only connect common to negative () leg of control circuits. A 500 Greistor (ZG-R01) converts the 420 mA control signal to 210 V. A 500 Greistor (ZG-R01) converts the 420 mA control signal to 210 V. For triac sink the Common connection from the actuator must be connected to the Hot connection of the controller. Position feedback cannot be us	Gateways	Description	Туре
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Technical data sheet

ARX24-MFT-T

Floating Point AC 24 V Transformer (AC Only)

