

3-way Mixing/Diverting, Characterized Control Valve, Stainless Steel Ball and Stem





5-year warranty



Type overview		
Туре		DN
B331		32
Technical data		
Functional data	Valve size [mm]	1.25" [32]
	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	A-port: as stated in chart B-port: 70% of A – AB Cv
	Flow characteristic	A-port equal percentage, B-port modified for constant common port flow
	Leakage rate	0% for A – AB, <2.0% for B – AB
	Pipe connection	Internal thread NPT (female)
	Servicing	maintenance-free
	Flow Pattern	3-way Mixing/Diverting
	Controllable flow range	75°
	Cv	25
Materials	Valve body	Nickel-plated brass body
	Stem	stainless steel
	Stem seal	EPDM (lubricated)
	Seat	PTFE
	Characterized disc	Ryton PPS
	O-ring	EPDM (lubricated)
	Ball	stainless steel
Suitable actuators	Non Fail-Safe	ARB(X) ARQB(X)

Spring

ARB(X) N4

AFRB(X)



Safety notes



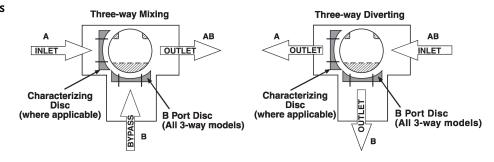
 WARNING: This product can expose you to lead which is known to the State of California to cause cancer and reproductive harm. For more information go to www.p65warnings.ca.gov

Product features

Application

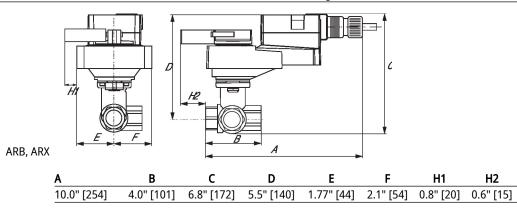
This valve is typically used in air handling units on heating or cooling coils, and fan coil unit heating or cooling coils. Some other common applications include Unit Ventilators, VAV box re-heat coils and bypass loops. This valve is suitable for use in a hydronic system with variable or constant flow.

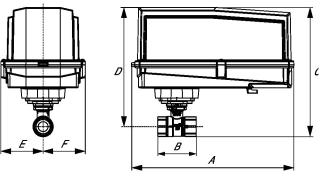
Flow/Mounting details



Dimensions

Type	DN	Weight
B331	32	2.5 lb [1.1 ka]



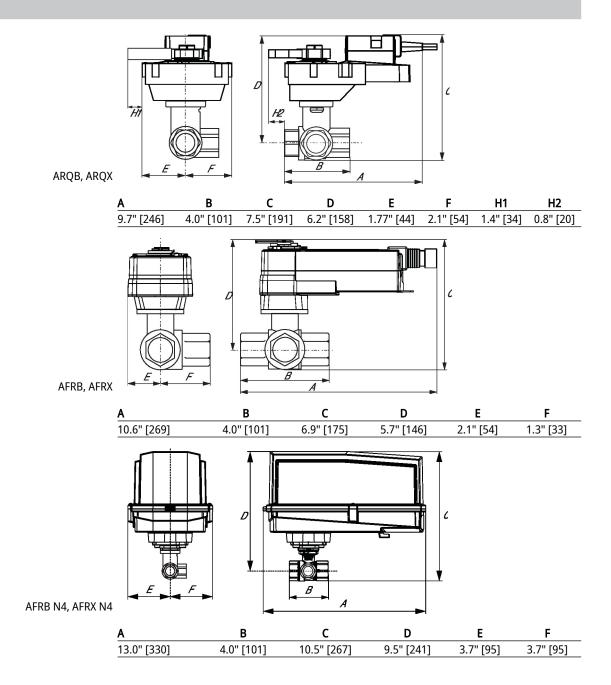


ARB N4, ARX N4, NRB N4, NRX N4

Α	В	C	D	E	F
11.4" [289]	4.0" [101]	8.9" [226]	7.6" [194]	3.1" [80]	3.1" [80]



Dimensions





On/Off, Spring return, 24...240 V



Nominal voltage	AC 24240 V / DC 24125 V	
Nominal voltage frequency	50/60 Hz	
Nominal voltage range	AC 19.2264 V / DC 21.6137.5 V	
Power consumption in operation	7 W	
Power consumption in rest position	3.5 W	
Electrical Connection 18 GA appliance cable, 3 ft [1 m] NPT conduit connector		
Overload Protection	electronic throughout 095° rotation	
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 @ 20°C	
Noise level, motor	45 dB(A)	
Noise level, fail-safe	62 dB(A)	
Position indication	Mechanical	
Power source UL	Class 2 Supply	
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	
	ISO 9001	
UL 2043 Compliant	Suitable for use in air plenums per Section 300.22(C) of the NEC and Section 602 of the IMC	
Ambient humidity	Max. 95% RH, non-condensing	
Ambient temperature	-22122°F [-3050°C]	
Storage temperature	-40176°F [-4080°C]	
Servicing	maintenance-free	
Weight	4.8 lb [2.2 kg]	
Housing material	Galvanized steel and plastic housing	
	Nominal voltage frequency Nominal voltage range Power consumption in operation Power consumption in rest position Electrical Connection Overload Protection Direction of motion motor Direction of motion fail-safe Manual override Angle of rotation Running Time (Motor) Running time fail-safe Noise level, motor Noise level, fail-safe Position indication Power source UL Degree of protection IEC/EN Degree of protection NEMA/UL Enclosure Agency Listing Quality Standard UL 2043 Compliant Ambient humidity Ambient temperature Storage temperature Servicing Weight	



Technical data

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

Electrical installation

INSTALLATION NOTES

A Actuators with appliance cables are numbered.

(UP) Universal Power Supply (UP) models can be supplied with AC 24...240 V, or DC 24...125 V.

 $\overline{\mathbb{A}}$ Provide overload protection and disconnect as required.

 $\overline{\mathbb{A}_{5}}$ 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.

Marning! 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.

Wiring diagrams On/Off 24 to 240 VAC Line Wht N Volts Blk L Whole Sign (2) Load