Date created, 10/27/2017 - Subject to change. © Belimo Aircontrols (USA), Inc.

B252, **2-Way**, **Characterized Control Valve** Stainless Steel Ball and Stem







WARRANT

Technical Data	
Service	chilled, hot water, up to 60% glycol
Flow Characteristic	equal percentage
Controllable Flow Range	75°
Size [mm]	2" [50]
End Fitting	NPT female ends
Body	forged brass, nickel plated
Ball	stainless steel
Stem	stainless steel
Stem Packing	EPDM (lubricated)
Seat	Teflon® PTFE
Seat O-ring	EPDM (lubricated)
Characterized Disc	stainless steel
Body Pressure Rating [psi]	400
Media Temperature Range	0°F to 250°F [-18°C to 120°C]
(Water)	
Max Differential Pressure (Water)	50 psi (345 kPa)
Close-Off Pressure	200 psi
Cv	85
Weight	5.3 lb [2.4 kg]
Leakage	0% for A to AB
Servicing	maintenance free

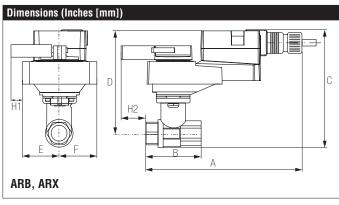


Application

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.

Suitable Actuators

	Non-Spring	Spring
B252	ARB(X)	AFRB(X)

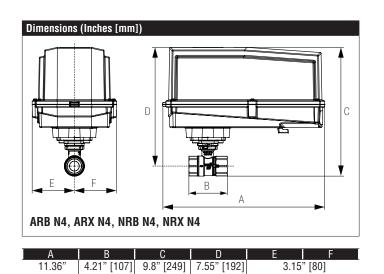


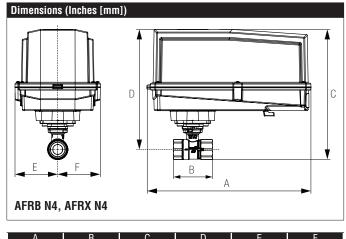
Α	В	С	D	E	F	H1
10.25"	4.93"	7.68"	5.98"	1.73	" [44]	1.18" [30]
[260]	[125]	[195]	[152]			

[289]

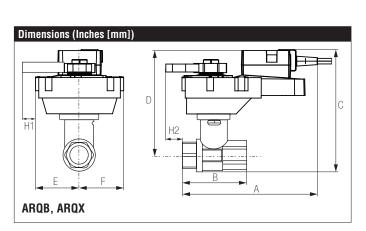
B252, 2-Way, Characterized Control Valve Stainless Steel Ball and Stem



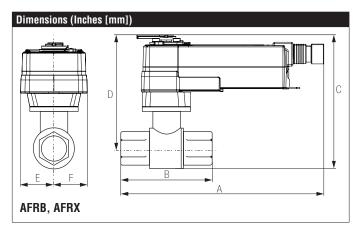




А	В	С	D	Е	F
12.98"	4.93" [125]	10.29"	9.24" [235]	3.39	" [86]
[330]		[261]			



]	Α	В	С	D	Е	F	H1	H2
	9.9"	4.21"	7.45"	6.11"	2.28	" [58]	0.75"	0.5" [15]
	[251]	[107]	[190]	[155]			[20]	



Α	В	С	D	E	F
11.27"	4.93" [125]	10.56"	8.86" [225]	2.02	" [51]
[286]		[268]			

ARQX24-1 On/Off, Non-Spring Return, 24 V





Technical Data Power Supply 24 VAC, ±20%, 50/60 Hz, 24 VDC, ±10% Power Consumption Running 15 W Power Consumption Holding 1.5 W Transformer Sizing 23 VA (class 2 power source) Electrical Connection 3ft [1m], 18 GA plenum rated cable with 1/2" conduit connector (10ft [3m] and 15ft [5m] avail.) Overload Protection electronic throughout 0° to 95° rotation Input Impedance 600 Ω Angle of Rotation 90° Direction of Rotation (Motor) reversible with built-in switch Position Indication integrated into handle Manual Override external push button Running Time (Motor) 10 sec Ambient Temperature Range -22°F to +122°F [-30°C to +50°C] Storage Temperature Range -40°F to +176°F [-40°C TO +80°C]
$\begin{array}{llllllllllllllllllllllllllllllllllll$
$ \begin{array}{llllllllllllllllllllllllllllllllllll$
Electrical Connection $ \begin{array}{c} \mbox{ 3ft [1m], 18 GA plenum rated cable with 1/2" } \\ \mbox{ conduit connector (10ft [3m] and 15ft [5m] avail.)} \\ \mbox{ Overload Protection } & \mbox{ electronic throughout 0° to 95° rotation } \\ \mbox{ Input Impedance } & \mbox{ 600 } \Omega \\ \mbox{ Angle of Rotation } & \mbox{ 90° } \\ \mbox{ Direction of Rotation (Motor) } & \mbox{ reversible with built-in switch } \\ \mbox{ Position Indication } & \mbox{ integrated into handle } \\ \mbox{ Manual Override } & \mbox{ external push button } \\ \mbox{ Running Time (Motor) } & \mbox{ 10 sec } \\ \mbox{ Ambient Temperature Range } & \mbox{ -22°F to +122°F [-30°C to +50°C] } \\ \end{tabular} $
avail.) Overload Protection electronic throughout 0° to 95° rotation Input Impedance 600 Ω Angle of Rotation 90° Direction of Rotation (Motor) reversible with built-in switch Position Indication integrated into handle Manual Override external push button Running Time (Motor) 10 sec Ambient Temperature Range -22°F to +122°F [-30°C to +50°C]
Input Impedance Angle of Rotation 90° Direction of Rotation (Motor) reversible with built-in switch Position Indication integrated into handle Manual Override external push button Running Time (Motor) 10 sec Ambient Temperature Range -22°F to +122°F [-30°C to +50°C]
Angle of Rotation 90° Direction of Rotation (Motor) reversible with built-in switch Position Indication integrated into handle Manual Override external push button Running Time (Motor) 10 sec Ambient Temperature Range -22°F to +122°F [-30°C to +50°C]
Direction of Rotation (Motor) reversible with built-in switch Position Indication integrated into handle Manual Override external push button Running Time (Motor) 10 sec Ambient Temperature Range -22°F to +122°F [-30°C to +50°C]
Position Indication integrated into handle Manual Override external push button Running Time (Motor) 10 sec Ambient Temperature Range -22°F to +122°F [-30°C to +50°C]
Manual Override external push button Running Time (Motor) 10 sec Ambient Temperature Range -22°F to +122°F [-30°C to +50°C]
Running Time (Motor) 10 sec Ambient Temperature Range -22°F to +122°F [-30°C to +50°C]
Ambient Temperature Range -22°F to +122°F [-30°C to +50°C]
Storage Temperature Range -40°F to +176°F [-40°C TO +80°C]
Housing NEMA 2, IP54
Agency Listings† cULus acc. to UL60730-1A/-2-14, CAN/CSA
E60730-1:02, CE acc. to 2004/108/EC and
2006/95/EC
Noise Level (Motor) max. 52 dB (A)
Servicing maintenance free
Quality Standard ISO 9001

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







Wiring Diagrams



X INSTALLATION NOTES



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 24 VDC.



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.

