

2-way, Characterized Control Valve, Stainless Steel Ball and Stem









Type overview	
Туре	DN
B263	65

#### **Technical data**

#### **Functional data**

Valve size [mm]	2.5" [65]	
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	
Pipe connection type	Internal thread	
	NPT (female)	
Servicing	maintenance-free	
Flow Pattern	2-way	
Leakage rate	0% for A – AB	
Controllable flow range	75°	
Cv	110	
Valve body	Nickel-plated brass body	
Stem	stainless steel	
Stem seal	EPDM (lubricated)	

### Materials

Valve body	Nickel-plated brass body	
Stem	stainless steel	
Stem seal	EPDM (lubricated)	
Seat	PTFE	
Characterized disc	TEFZEL®	
O-ring	EPDM (lubricated)	
Ball	stainless steel	
Non-Spring	ARB(X)	

AFRB(X)



Spring

**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**

Safety notes

## 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

A A B 100%

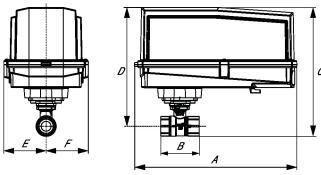
Two-way valves should be installed with the

	disc upstream.	$A \rightarrow AB 100\%$	A → AB 100%	
Dimensions				
<b>Type</b> B263	<b>DN</b> 65		<b>Weight</b> 8.1 lb [3.7 kg]	
	ARB, ARX	H		c
		A         B           11.0" [280]         5.6" [141]         8.0"	C         D         E           ' [203]         6.0" [152]         2.8" [71]	F         H1         H2           2.8" [71]         1.9" [48]         0.8" [20]
	AFRB, AFRX			
		A B 11.5" [293] 5.6" [141]	C D 8.6" [219] 6.6" [16	E         F           8]         2.0" [51]         2.0" [51]
			B	

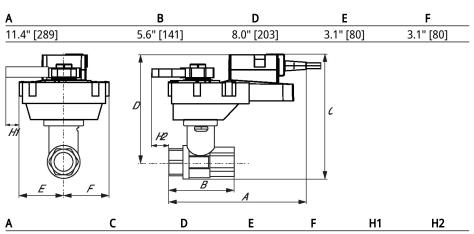
AFRB N4, AFRX N4

A	В	С	D	E	F
13.0" [330]	5.6" [141]	10.3" [262]	9.3" [235]	3.4" [86]	3.4" [86]





ARB N4, ARX N4, NRB N4, NRX N4



ARQB, ARQX

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9.9" [251]	8.1" [206]	6.1" [155]	2.3" [58]	2.3" [58]	0.8" [20]	0.6" [15]



On/Off, Spring return, 24 V



Technical data		
Electrical data	Nominal voltage	AC/DC 24 V
	Nominal voltage frequency	50/60 Hz
	Nominal voltage range	AC 19.228.8 V / DC 21.628.8 V
	Power consumption in operation	5 W
	Power consumption in rest position	2.5 W
	Transformer sizing	7.5 VA
	Electrical Connection	18 GA appliance or plenum cables, 3 ft [1 m], 10 ft [3 m] or 16 ft [5 m], with or without 1/2" NPT 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 @ 20°C
	Noise level, motor	45 dB(A)
	Noise level, fail-safe	62 dB(A)
	Position indication	Mechanical
Safety data	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
	Quality Standard	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	Weight	4.8 lb [2.2 kg]



#### **Technical data**

Materials Housing material

Galvanized steel and plastic housing

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

#### **Electrical installation**

# X 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.

# 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 VAC Transformer

A

A

A

A

A

Bik (1) Common

Red (2) + Hot