

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%

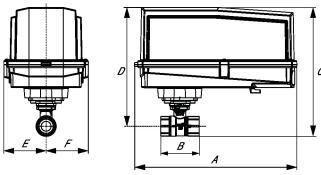
Two-way valves should be installed with the

	disc upstream.	$A \rightarrow AB 100\%$	A → AB 100%	
Dimensions				
Type B263	DN 65		Weight 8.1 lb [3.7 kg]	
	ARB, ARX	H		→ C
			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" [168	E F B] 2.0" [51] 2.0" [51]
			B B	<i>c</i>

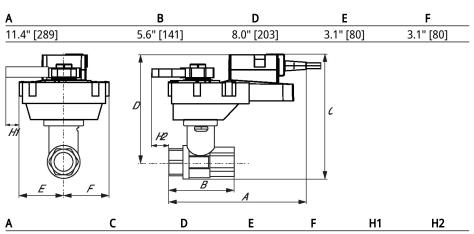
AFRB N4, AFRX N4

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

, · ·	•		-	•		
9.9" [251]	8.1" [206]	6.1" [155]	2.3" [58]	2.3" [58]	0.8" [20]	0.6" [15]



On/Off, Floating point, Non fail-safe, 24 V







echnical 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	2.5 W
	Power consumption in rest position	0.5 W
	Transformer sizing	5.5 VA
	Auxiliary switch	1x SPDT, 3 A resistive (0.5 A inductive) @ AC 250 V, adjustable 0100%
	Switching capacity auxiliary switch	3 A resistive (0.5 A inductive) @ AC 250 V
	Electrical Connection	18 GA plenum cable, 1 m, 3 m, or 5 m with 1/2" NPT conduit connector, degree of protection NEMA 2 / IP54
	Overload Protection	electronic thoughout 090° rotation
Functional data	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)	90 s / 90°
	Running time motor variable	90 or 150 s
	Noise level, motor	45 dB(A)
	Position indication	Mechanical, pluggable
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

Servicing

-40...176°F [-40...80°C]

maintenance-free



Technical data

Weight	Weight	2.2 lb [1 kg]
Materials	Housing material	Galvanized steel and plastic housing

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

Accessories

Electrical accessories	Electrical accessories Description	
	Battery backup system, for non-spring return models	NSV24 US
	Battery, 12 V, 1.2 Ah (two required)	NSV-BAT

Electrical installation

X INSTALLATION NOTES

\Lambda 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.

Actuators Hot wire must be connected to the control board common. Only connect common to neg. (-) leg of control circuits. Terminal models (-T) have no-feedback.

💫 Actuators with plenum cable do not have numbers; use color codes instead.

One built-in auxiliary switch (1x SPDT), for end position indication, interlock control, fan startup, etc.

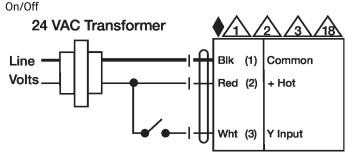
Apply only AC line voltage or only UL-Class 2 voltage to the terminals of auxiliary switches. Mixed or combined operation of line voltage/safety extra low voltage is not allowed.

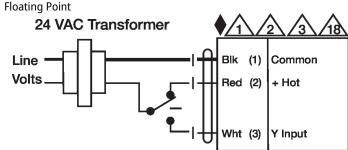
Meets cULus requirements without the need of an electrical ground connection.

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.

Wiring diagrams







Electrical installation

Wiring diagrams

