

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





5-year warranty



overview	

Туре	DN
B238	40

## **Technical data**

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Valve size [mm] 1.5" [40]		
Fluid	chilled or hot water, up to 60% glycol	
Fluid Temp Range (water)	r) 0250°F [-18120°C]	
Body Pressure Rating	400 psi	
Close-off pressure Δps	200 psi	
Flow characteristic	equal percentage	
Leakage rate	0% for A – AB	
Pipe connection	Internal thread NPT (female)	
Servicing	maintenance-free	
Flow Pattern 2-way		
Controllable flow range	75°	
Cv	19	

#### Materials

<del>-</del> :		
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 Fail-Safe	ARB(X)	
	ARQB(X)	
	NROB(X)	

# Suitable actuators

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	ARQB(X)
	NRQB(X)
	ARB(X) N4
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 re-heat coils and bypass loops. This valve is suitable for use in a hydronic system with variable flow.

#### Flow/Mounting details

A AB 100%

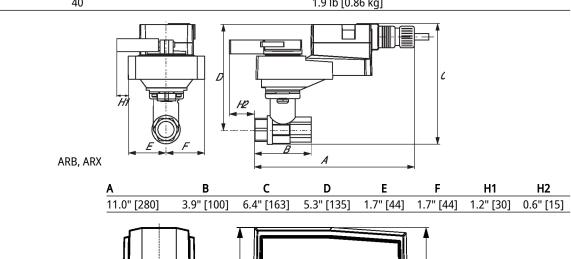
A A AB 100%

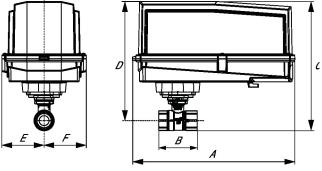
A A AB 100%

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

# **Dimensions**

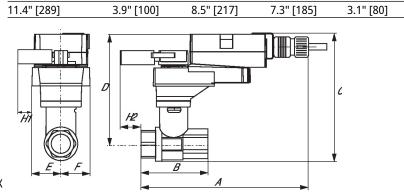
Туре	DN	Weight
B238	40	1.9 lb [0.86 kg]





В

ARB N4, ARX N4, NRB N4, NRX N4



C

D

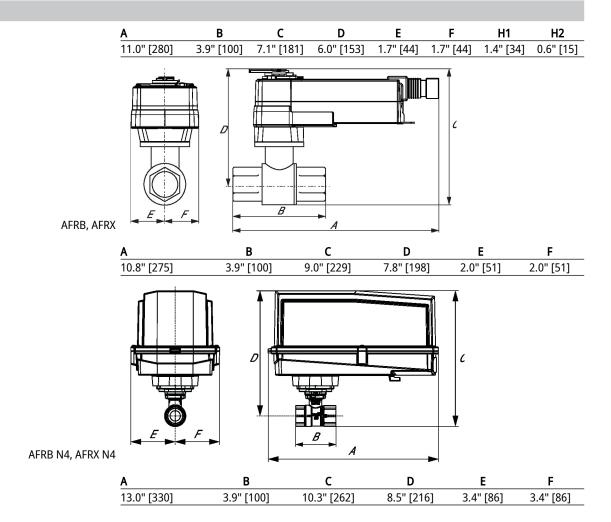
Ε

NRQB, NRQX

3.1" [80]



## **Dimensions**









Technical data		
	Naminal valtage	AC 100240 V
Electrical data	Nominal voltage	
	Nominal voltage frequency	50/60 Hz
	Nominal voltage range	AC 85265 V
	Power consumption in operation	4 W
	Power consumption in rest position	1 W
	Transformer sizing	7.5 VA
	Electrical Connection	18 GA appliance 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	Operating range Y	210 V
	Operating range Y note	420 mA w/ ZG-R01 (500 $\Omega$ , 1/4 W resistor)
	Input impedance	100 k $\Omega$ for 210 V (0.1 mA), 500 $\Omega$ for 420 m.
	Position feedback U	210 V
	Position feedback U note	Max. 1 mA
	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	-40176°F [-4080°C]
	Servicing	maintenance-free
Weight	Weight	2.3 lb [1 kg]



Materials Housing material Galvanized steel and plastic housing

**Footnotes** †Rated Impulse Voltage 4kV, Type of action 1, Control Pollution Degree 3.

#### **Electrical installation**

## K INSTALLATION NOTES

A Actuators with appliance cables are numbered.

Nerovide overload protection and disconnect as required.

Actuators may be connected in parallel. Power consumption and input impedance must be observed.

6 Only connect common to negative (-) leg of control circuits.

 $\Lambda$  A 500  $\Omega$  resistor (ZG-R01) converts the 4...20 mA control signal to 2...10 V.

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

