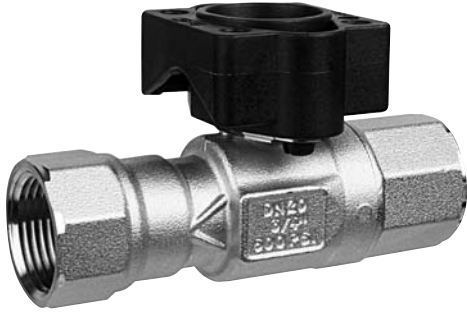


B2...HT... Two-way High Temperature Characterized Control Valve

Stainless Steel Ball and Stem



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.

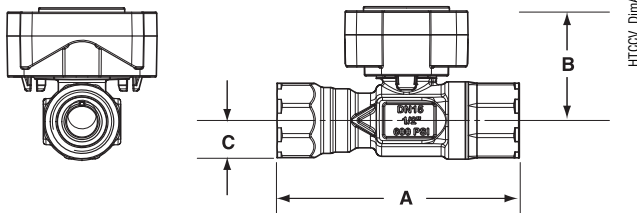
This valve is designed to fit in compact areas where on/off or floating point control is required using 24 VAC.

Technical Data	
Service	water/low pressure steam, 60% glycol
Flow characteristic	A-port equal percentage
Sizes	½", ¾", 1"
Type of end fitting	female, NPT
Materials:	
Body	brass (DZR) P-CuZn35Pb2
Ball	stainless steel
Stem	stainless steel
Seats	PTFE Teflon
Characterizing disc	PTFE Teflon
Packing	2 EPDM O-rings
Pressure rating	600 psi
Media temperature range	
Steam	250°F (15 psig)
Hot water	37°F - 266°F
Close off pressure	200 psi
Maximum differential pressure (ΔP)	116 psi full open ball 60 psi partially open ball
Leakage	bubble tight 0%

C _v	Valve Nominal Size		Type	Suitable Actuators	
	Inches	DN [mm]	2-way NPT	Spring	Non-Spring
0.29	½	15	B215HT029	TF Series	TR Series
0.46	½	15	B215HT046		
0.73	½	15	B215HT073		
1.16	½	15	B215HT116		
1.86	½	15	B215HT186		
2.90	½	15	B215HT290		
4.55	½	15	B215HT455*	LF Series	LR Series
1.86	¾	20	B220HT186		
2.90	¾	20	B220HT290		
4.64	¾	20	B220HT464		
7.31	¾	20	B220HT731		
9.28	¾	20	B220HT928		
13.20	¾	20	B220HT1320		
4.64	1	25	B225HT464		
7.31	1	25	B225HT731		
11.6	1	25	B225HT1160		
18.56	1	25	B225HT1856		
28.00	1	25	B225HT2800		

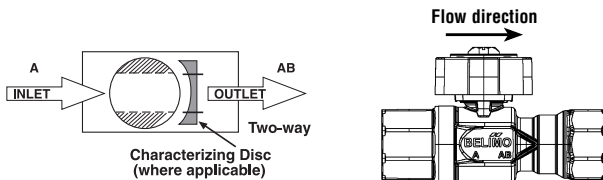
* modified equal percentage

Dimensions



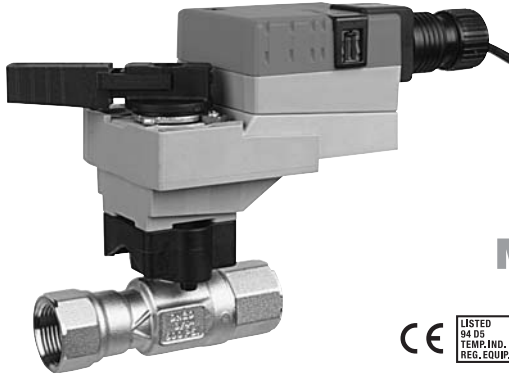
Valve Body	Valve Nominal Size		Dimensions (Inches [mm])		
	Inches	DN [mm]	A	B	C
B215HT	½"	15	3.33" [84.6]	2.09" [53.2]	0.53" [13.5]
B220HT	¾"	20	3.96" [100.6]	2.37" [60.1]	0.67" [17.0]
B225HT	1"	25	5.14" [130.6]	3.14" [79.8]	0.92" [23.25]

Flow Patterns

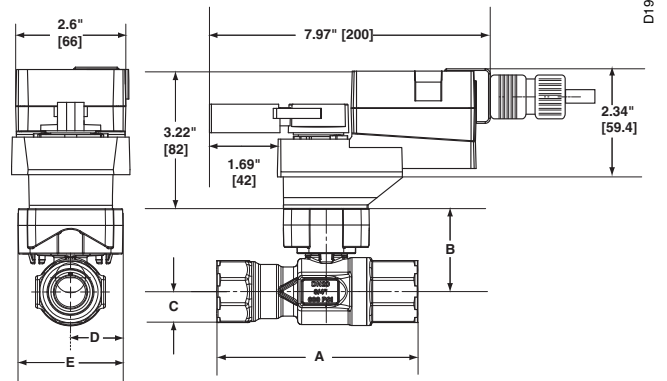


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LRX24-MFT Actuators, Multi-Function Technology



Dimensions with 2-Way Valve



Model

LRX24-MFT

Technical Data	
Power supply	24 VAC ± 20% 50/60 Hz 24 VDC ± 10%
Power consumption	running 2 W holding 1.2 W
Transformer sizing	3.5 VA (class 2 power source)
Electrical connection	18 GA plenum rated cable 1/2" conduit connector □ 3 ft [1m] □ 10 ft [3m] □ 16 ft [5m]
Overload protection	electronic throughout 0° to 95° rotation
Operating range Y	2 to 10 VDC, 4 to 20 mA (default) Variable (VDC, PWM, Floating Point, On/Off)
Input impedance	100 kΩ (0.1 mA), 500 Ω 1500 Ω (PWM, Floating Point, On/Off)
Feedback output U	2 to 10 VDC, 0.5mA max VDC Variable
Angle of rotation	max. 95°, adjust. with mechanical stop electronically variable
Torque	45 in-lb [5 Nm]
Direction of rotation	reversible with protected switch
Position indication	handle
Manual override	external push button
Running time	150 seconds (default) Variable (35 to 150 secs)
Humidity	5 to 95% RH non condensing (EN 60730-1)
Ambient temperature	-22°F to 122°F [-30°C to 50°C]
Storage temperature	-40°F to 176°F [-40°C to 80°C]
Housing	NEMA 2/IP54
Housing material	UL94-5VA
Agency listings†	cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1, CSA C22.2 No. 24-93, CE acc. to 89/336/EEC
Noise level	<35 dB(A)
Quality standard	ISO 9001
Weight	1.5 lbs [0.7 kg]

† Rated impulse voltage 800V, Control pollution degree 3,
Type of action 1 (1.B for -S models)

Valve Body	Valve Nominal Size		Dimensions (Inches [mm])		
	Inches	DN [mm]	A	B	C
B215HT	1/2"	15	3.33" [84.6]	2.09" [53.2]	0.53" [13.5]
B220HT	3/4"	20	3.96" [100.6]	2.37" [60.1]	0.67" [17.0]
B225HT	1"	25	5.14" [130.6]	3.14" [79.8]	0.92" [23.25]

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Wiring Diagrams

INSTALLATION NOTES

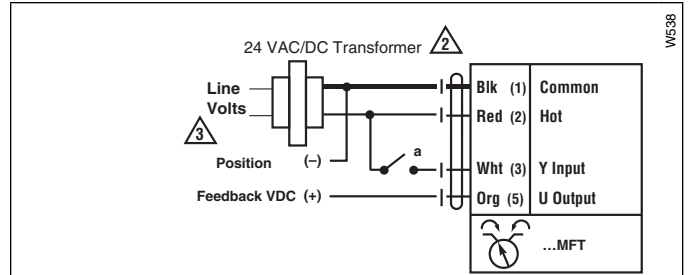
- 2** **CAUTION Equipment damage!**
Actuators may be connected in parallel.
Power consumption and input impedance must be observed.
- 3** Actuators may also be powered by 24 VDC.
- 4** Position feedback cannot be used with Triac sink controller.
The actuator internal common reference is not compatible.
- 6** Control signal may be pulsed from either the Hot (source) or the Common (sink) 24 VAC line.
- 8** Contact closures A & B also can be triacs.
- 9** For triac sink the common connection from the actuator must be connected to the hot connection.

APPLICATION NOTES

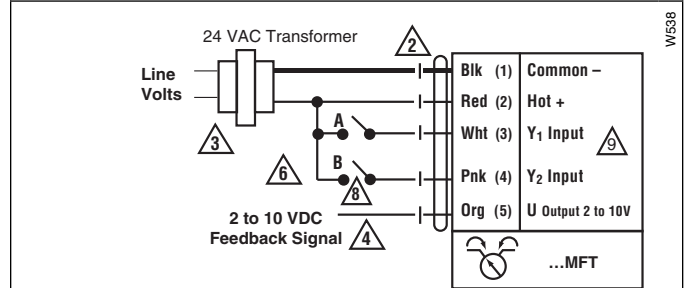
- The ZG-R01 500 Ω resistor converts the 4 to 20 mA control signal to 2 to 10 VDC, up to 2 actuators may be connected in parallel.

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.

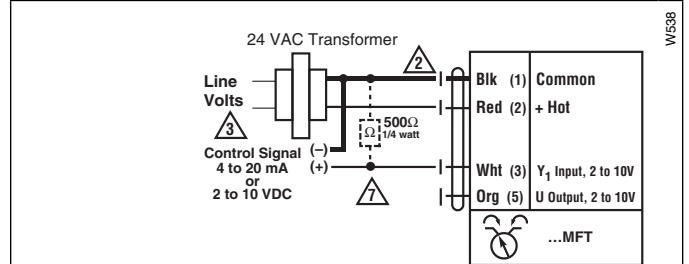
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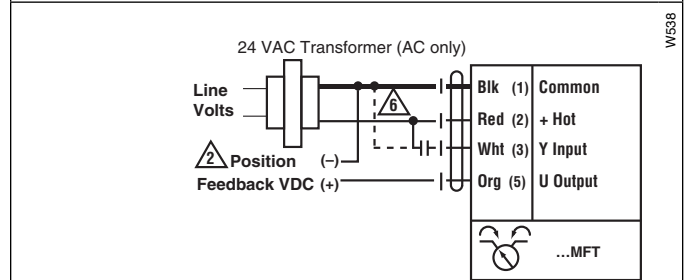
On/Off control



Floating Point



VDC/4-20 mA



PWM