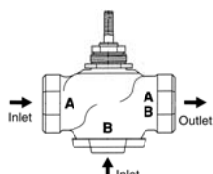




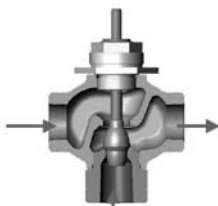
Technical Data		
	G3	G3...D
Service	chilled or hot water, 60% glycol	
Flow characteristic	linear	
Action	stem up - open B to AB	stem up - open B to AB
Sizes	½" to 2"	
End fitting	NPT female ends	
Materials		
Body	bronze	
Seat	bronze	
Stem	stainless steel	
Plug	brass	
Packing	spring loaded TFE	
Disc	none	
ANSI Class	ANSI 250 (up to 400 psi below 150°F)	
Leakage	ANSI III	
Media temperature		
Water	20°F to 250°F (-7°C to 120°C)	
Maximum ΔP*	A port- 87 psi (600 kPa)	35 psi (241 kPa)
Water	B port- 35 psi (241 kPa)	
Rangeability	500:1	
*(50% or more open)		

### G3...(D) 3-way Flow Patterns

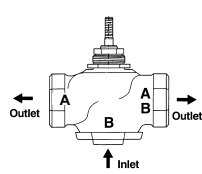
**G3 3-way Mixing Valve**



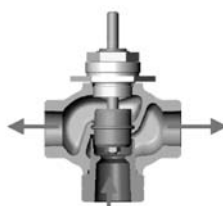
**Stem Up- Open B to AB**



**G3...D 3-way Diverting Valve**



**Stem Up- Open B to AB**



Note: Flow B to A travels through center of plug (as shown).

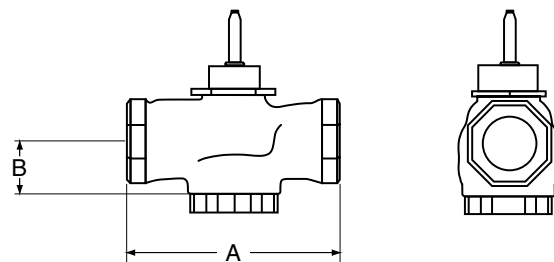
### Application

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 constant or variable flow.

3-way valves are available with mixing or diverting flow patterns.

Valve Nominal Size			Type	Suitable Actuators		
C <sub>v</sub>	Inches	DN [mm]	3-way NPT	Non-Spring	Spring	
2.2	½	15	G314	LM Series	NV Series	LF Series
4.4	½	15	G315(D)			
7.5	¾	20	G320(D)	NM	NF	NVF Series
14	1	25	G325(D)			
20	1¼	32	G332(D)	AM Series	AF(X) Series	
28	1½	40	G340(D)			
41	2	50	G350			
40	2	50	G350(D)			

### Dimensions



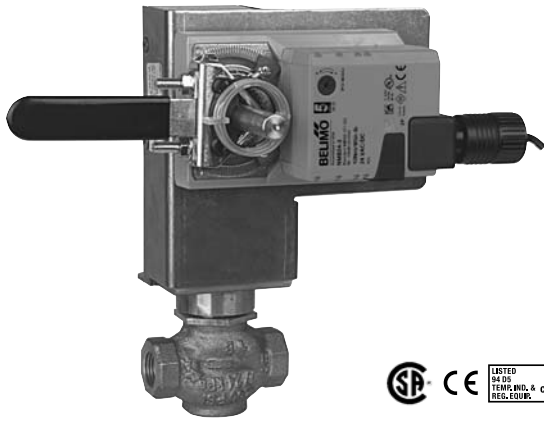
D078-3W

Valve Body	Valve Nominal Size		Dimensions (Inches [mm])	
	Inches	DN [mm]	A	B
G314	½"	15	3.06" [78]	1.37" [35]
G315(D)	½"	15	3.06" [78]	1.37" [35]
G320(D)	¾"	20	3.62" [92]	1.68" [43]
G325(D)	1"	25	4.62" [117]	1.56" [40]
G332(D)	1¼"	32	4.62" [117]	1.62" [41]
G340(D)	1½"	40	5.37" [137]	1.62" [41]
G350(D)	2"	50	6.12" [156]	1.87" [48]

### Piping

The valves should be mounted in a weather-protected area in a location that is within the ambient limits of the actuator. Allow sufficient room for valve with actuator and for service. For the NV Series, allow 6" for cover removal and 12" for complete actuator removal. The G2(S) and G3(D) preferred mounting position of the valve is with the valve stem vertical above the valve body, for maximum life. However, the assemblies can be mounted with the valve stem vertical or horizontal in relation to the pipe. The actuators should never be mounted underneath the valve, as condensation can build up and result in a failure of the actuators. Do not reverse flow direction.

# NMX24-MFT-X1 Actuators, Proportional

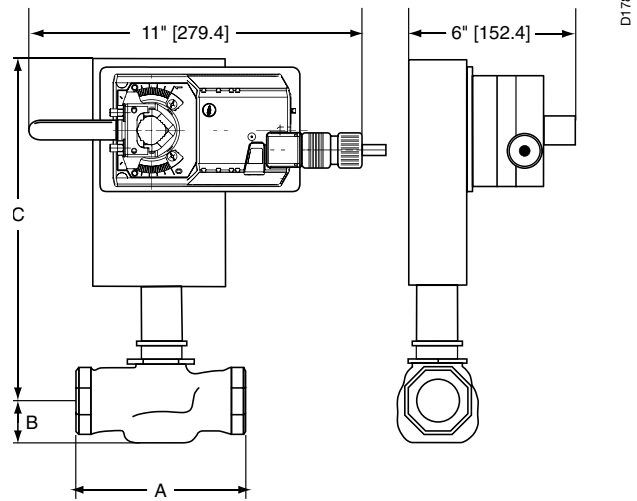


## Models

NMX24-MFT-X1

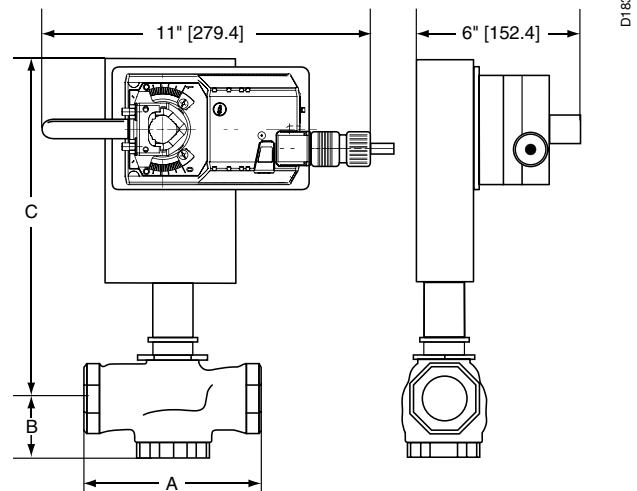
Technical Data	
Power supply	24 VAC ± 20% 50/60 Hz 24 VDC ± 10%
Power consumption	3.5 W (1.25 W)
Transformer sizing	5.5 VA (class 2 power source)
Electrical connection	3 ft, 10ft, 16ft, 18 GA plenum rated cable ½" conduit connector
Overload protection	electronic throughout 0° to 95° rotation
Operating 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, 0.5 mA max, VDC variable
Angle of rotation	max 95°, adjustable with mechanical stop electronically variable
Torque	90 in-lb [10 Nm]
Direction of rotation	reversible with  switch
Position indication	reflective visual indicator (snap-on)
Manual override	external push button
Running time	default 150 seconds variable 45 to 170 seconds
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 type 2/IP54
Housing material	UL94-5VA
Agency listings	cULus acc. to UL 60730-1A/-2-14, CAN/CSA E60730-1, CSA C22.2 No. 24-93, CE acc. to 89/336/EEC
Noise level	<45 db(A)
Quality standard	ISO 9001

## Dimensions with G2...(S) Series 2-Way Valve



Valve Body	Valve Nominal Size		Dimensions (Inches [mm])		
	Inches	DN [mm]	A	B	C
G2(S)	1"	25	4.62" [117]	1.12" [29]	8.12" [206]
G2(S)	1¼"	32	4.62" [117]	1.37" [35]	8.37" [213]

## Dimensions with G3...(D) Series 3-Way Valve



Valve Body	Valve Nominal Size		Dimensions (Inches [mm])		
	Inches	DN [mm]	A	B	C
G3(D)	1"	25	4.62" [117]	1.56" [40]	8.56" [217]
G3(D)	1¼"	32	4.62" [117]	1.62" [41]	8.62" [219]

M40026 - 07/10 - Subject to change. © Belimo Aircontrols (USA), Inc.

### Wiring Diagrams

#### INSTALLATION NOTES

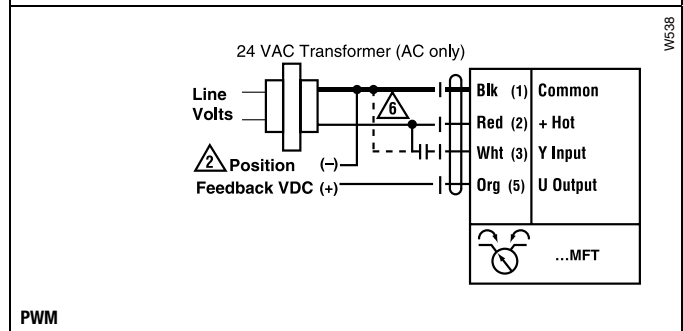
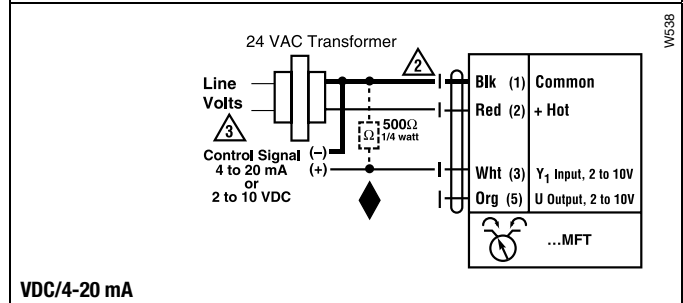
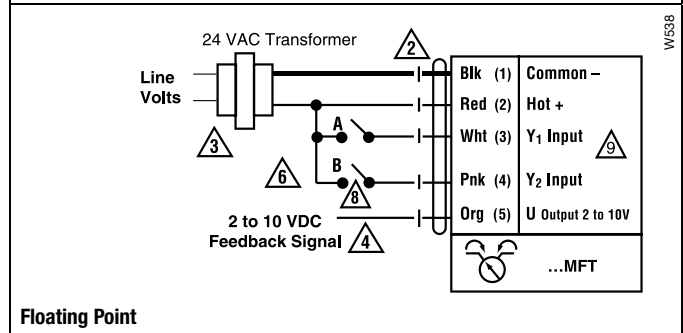
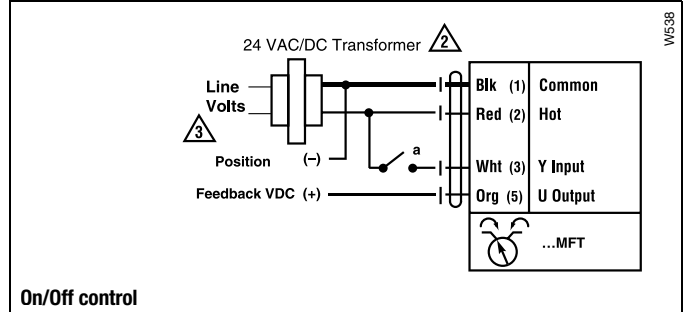
- 1 Provide overload protection and disconnect as required.
- 2 **CAUTION Equipment damage!**  
Actuators may be connected in parallel.  
Power consumption and input impedance must be observed.
- 3 Actuators may also be powered by 24 VDC.
- 5 Only connect common to neg. (-) leg of control circuits.

#### APPLICATION NOTES

- ◆ Meets cULus or UL and CSA 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.



	Non-Spring Return						Spring Return					
	NVD	NV	NVG	LM	NM	AM	NVFD	NVF	LF	NF	AF	AFX
<b>2-way</b>												
G212(S)	250			250			250		250			
G213(S)	250			250			250		250			
G214(S)	250			250			250		250			
G215(S)	250			250			250		250			
G219(S)	250			250			250		185			
G220(S)	250			250			250		185			
G224(S)		250			250			207		250		
G225(S)		250			250			207		250		
G232(S)		162			158			130		158		
G240(S)		110	160			230		88			169	230
G250(S)		58	190			127		47			93	127
<b>3-way Mixing</b>												
G314	250			250			250		250			
G315	250			250			250		250			
G320	250			250			250		250			
G325		250			168			207		250		
G332		162			105			130		158		
G340		110				169		88			169	230
G350		58				93		47			93	127
<b>3-way Diverting</b>												
G315D	250			250			250		250			
G320D	250			250			250		250			
G325D	250				250		250			250		
G332D		250			250			250		250		
G340D		250				250		250			250	250
G350D		250				250		250			250	250