

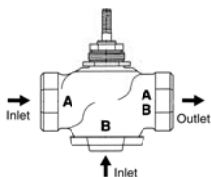


| Technical Data | | |
|-------------------------|--------------------------------------|------------------------|
| | G3 | G3...(D) |
| Service | chilled or hot water, 60% glycol | |
| Flow characteristic | linear | |
| Action | stem up - open B to AB | stem up - open B to AB |
| Sizes | ½" to 2" | |
| 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* water | 35 psi (241 kPa) | |
| Rangeability | 500:1 | |
| Valve weights | G314, G315(D) | 2 lbs |
| | G320 | 3 lbs |
| | G320D | 2.5 lbs |
| | G325, G332(D) | 2.5 lbs |
| | G325D | 5 lbs |
| | G340(D), G350(D) | 14 lbs |

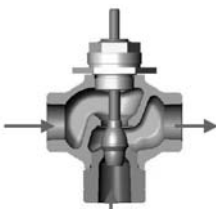
* (50% or more open)

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

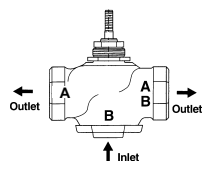
G3 3-way Mixing Valve



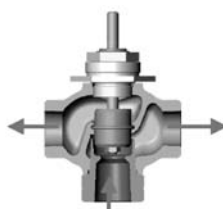
Stem Up - Open B to AB



G3...(D) 3-way Diverting Valve



Stem Up - Open B to AB



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

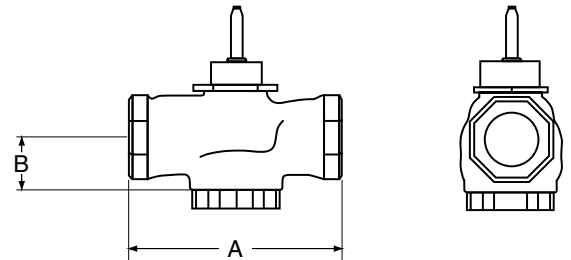
Application

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 | | |
|--------------------|--------|---------|-----------|--------------------|--------------|------------|
| Cv | 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 | NVF Series |
| 28 | 1½ | 40 | G340(D) | | | |
| 41 | 2 | 50 | G350 | | | |
| 40 | 2 | 50 | G350(D) | | | |

Dimensions

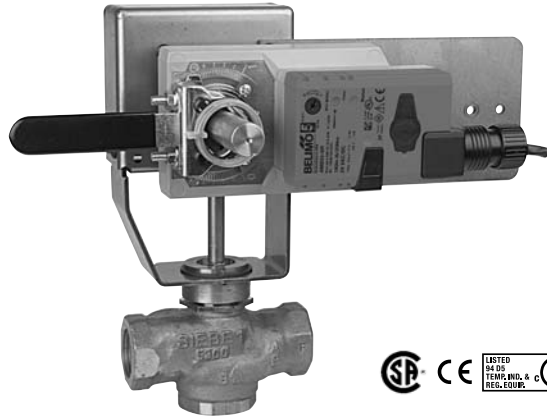


D078-3W

| 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.

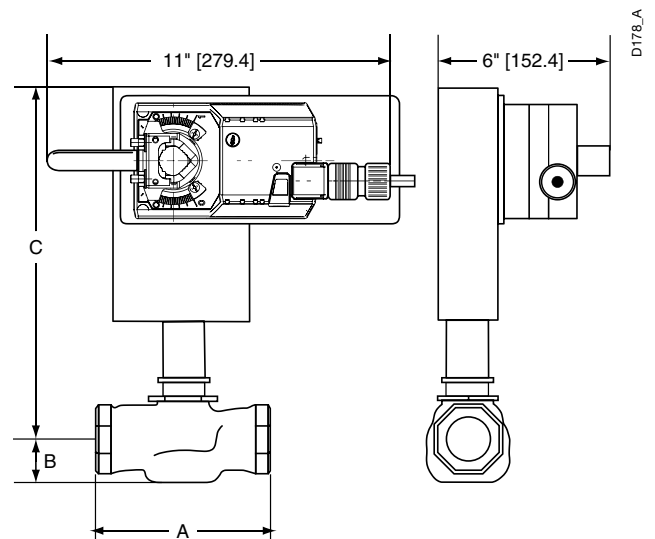


Models

AMB24-SR-X1

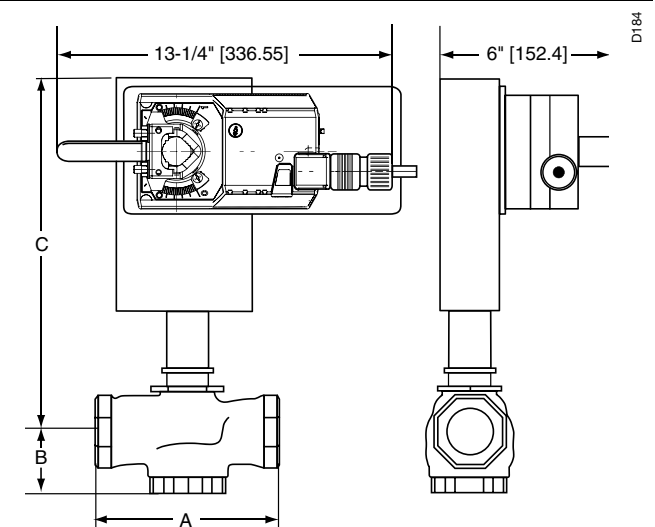
| Technical Data | |
|-----------------------|--|
| Control | proportional |
| Power supply | 24 VAC \pm 20% 50/60 Hz 24 VDC \pm 10% |
| Power consumption | running 2.5 W holding 0.4 W |
| Transformer sizing | 5 VA (Class 2 power source) |
| Electrical connection | 3 ft, 18 GA appliance cable 1/2" conduit connector |
| Overload protection | electronic throughout 0° to 95° rotation |
| Operating range Y | 2 to 10 VDC, 4 to 20 mA |
| Input impedance | 100 k Ω (0.1 mA), 500 Ω |
| Angle of rotation | max 95°, adjustable with mechanical stop |
| Torque | 180 in-lb [20 Nm] |
| Direction of rotation | reversible with switch =CCW with decreasing control signal (10-2V) =CW with decreasing control signal (10-2V) |
| Position indication | reflective visual indicator (snap-on) |
| Manual override | external push button |
| Running time | 95 seconds, constant independent of load |
| 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 60730-1/-2-14, CAN/CSA C22.2 No. 24 certified, CE acc. to 73/23/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 1/2" | 40 | 5.37" [137] | 1.50" [38] | 8.50" [216] |
| G2(S) | 2" | 50 | 6.12" [156] | 1.56" [40] | 8.56" [217] |

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 1/2" | 40 | 5.37" [137] | 1.62" [41] | 8.62" [219] |
| G3(D) | 2" | 50 | 6.12" [156] | 1.87" [48] | 8.87" [225] |

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.

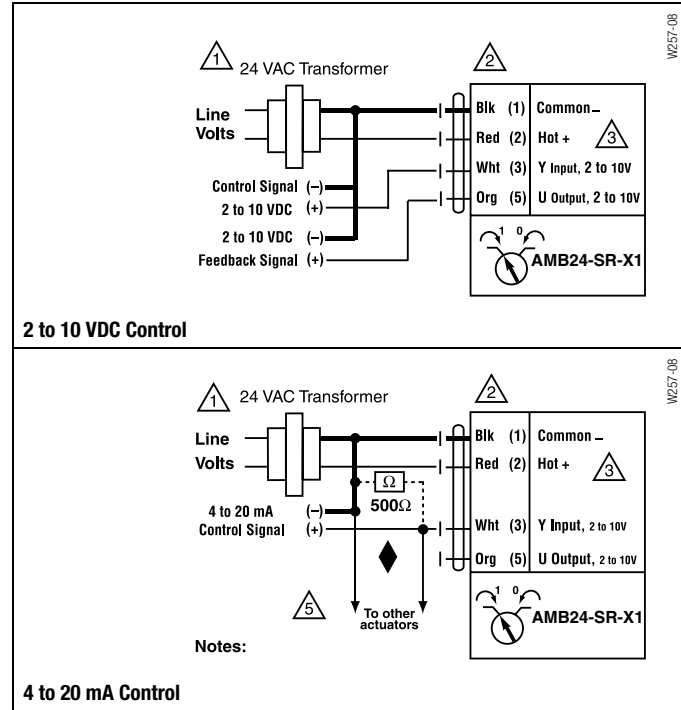
3 Actuators may also be powered by 24 VDC.

5 Only connect common to neg. (-) leg of control circuits.

APPLICATION NOTES

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.



| | Non-Spring Return | | | | | | Spring Return | | | | | |
|------------------------|-------------------|-----|-----|-----|-----|-----|---------------|-----|-----|-----|-----|-----|
| | NVD | NV | NVG | LM | NM | AM | NVFD | NVF | LF | NF | AF | AFX |
| 2-way | | | | | | | | | | | | |
| 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 | | | 242 | | | 250 | | 185 | | | |
| G220(S) | 250 | | | 242 | | | 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 |
| 3-way Mixing | | | | | | | | | | | | |
| G314 | 250 | | | 250 | | | 250 | | 250 | | | |
| G315 | 250 | | | 250 | | | 250 | | 250 | | | |
| G320 | 250 | | | 242 | | | 250 | | 185 | | | |
| G325 | | 250 | | | 250 | | | 207 | | 250 | | |
| G332 | | 162 | | | 158 | | | 130 | | 158 | | |
| G340 | | 110 | | | | 230 | | 88 | | | 169 | 230 |
| G350 | | 58 | | | | 127 | | 47 | | | 93 | 127 |
| 3-way Diverting | | | | | | | | | | | | |
| 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 |