

B249VSS Technical Data Sheet

Stainless Steel Body, Ball and Stem



Application

These threaded valves are designed to provide modulating or two position control of hot or chilled water and saturated steam systems under 50 psi. Typical applications include reheat coils, VAV terminal control, unit ventilators, and air handlers, especially in areas which have minimum profile requirements. Up to 50 psi steam
 1/2" - 2000 PSIG WOG, Cold Non-Shock
 Federal Specification: WW-V-35C, Type II
 Composition: SS
 Style: 3

Suitable Actuators

	Non-Spring	Spring	Electronic fail-safe
B249VSS	GMB(X), PRB(X)	AF	PKRB(X)

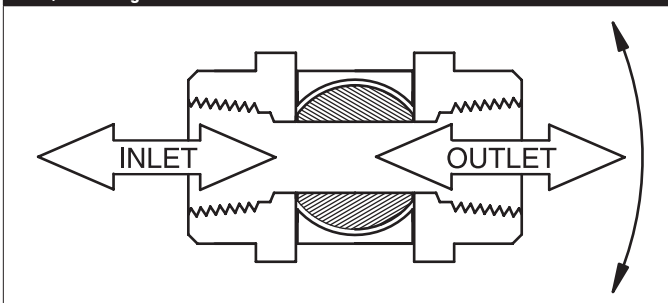
Technical Data

Fluid	chilled or hot water, up to 60% glycol, steam
Flow characteristic	modified equal percentage
Controllable flow range	90° rotation, A – AB open ccw, B – AB open cw
Valve Size [mm]	2" [50]
Pipe connection	SAE NPT (female connections)
Housing	Stainless steel A351-CF8M 316
Housing seal	PTFE
Ball	316 stainless steel
Stem	316 stainless steel
Stem seal	RPTFE
Spindle bearing	RPTFE
Lock nut	stainless steel
Seat	RPTFE
Body Pressure Rating	1500 psig WOG
Maximum Inlet Pressure (Steam)	50 psi
Max Differential Pressure (Steam)	50 psi
Close-off pressure Δ ps	1000 psi
Maximum Velocity	15 FPS
Cv	108
Weight	6.17 lb [2.8 kg]
Fluid Temp Range (water)	-22...298°F [-30...148°C]
Leakage rate	ANSI Class VI

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

Flow/Mounting Details



2* AFB24-X1 Technical Data Sheet

On/Off, Spring Return, Fail-Safe, AC/DC 24 V



5-year warranty



Technical Data

Power Supply	24 VAC, ±20%, 50/60 Hz, 24 VDC, -10% / +20%
Power consumption in operation	5 W
Power consumption in rest position	2.5 W
Transformer sizing	14 VA @ 24VAC (class 2 power source), 17 VA @ AC 120 V, 36 VA @ AC 240 V
Electrical Connection	18 GA appliance cable, 3 ft [1 m], with 1/2" conduit connector
Overload Protection	electronic throughout 0...95° rotation
Position Feedback	3980
Angle of rotation	95°
Direction of motion motor	selectable by ccw/cw mounting
Direction of motion fail-safe	reversible with cw/ccw mounting
Position indication	Mechanical
Manual override	5 mm hex crank (3/16" Allen), supplied
Running Time (Motor)	75 s
Running time fail-safe	<20 s
Ambient humidity	max. 95% r.H., non-condensing
Ambient temperature	-22...122°F [-30...50°C]
Storage temperature	-40...176°F [-40...80°C]
Degree of Protection	IP54, NEMA 2, UL Enclosure Type 2
Housing material	Galvanized steel and plastic housing
Agency Listing	cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2014/30/EU
Noise level, motor	50 dB(A)
Noise level, fail-safe	62 dB(A)
Servicing	maintenance-free
Quality Standard	ISO 9001
Weight	9.26 lb [4.2 kg]

*Variable when configured with MFT options.

Wiring Diagrams

- ◆ Meets cULus requirements without the need of an electrical ground connection.
- Ⓐ Actuators with appliance cables are numbered.
- △1 Provide overload protection and disconnect as required.
- △3 Actuators may also be powered by 24 VDC.
- △45 Actuators may be powered in parallel. Power consumption must be observed.
- △48 Parallel wiring required for piggy-back applications.

