B6300VB-207, 3”, V Ball Control Valve

Carbon Steel Body, Hardened Chrome Plated, Stainless Steel Ball and Stem

Application

Water-side control of air handling apparatus in ventilation and air-conditioning system.
Water/Steam control in heating systems.
300:1 rangeability.
The dimensions and drilling of end flanges conform to the American cast iron flange standard, Class 150 (ANSI B16.1).

Product Features

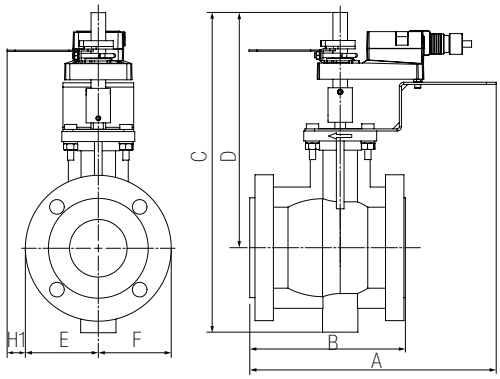
Fast quarter turn open or closed operation, Stainless steel ball and stem, Positive shut-off, Two piece body construction

Suitable Actuators

	Non-Spring	Spring	Electronic Fail-Safe
B6300VB-207	SY1, AMB(X), PRB(X)	AFB(X)	GK, PKRB(X)

Technical Data	
Service	chilled or hot water, up to 60% glycol, steam
Flow Characteristic	equal percentage
Controllable Flow Range	75°
Valve Size	3 “ [80]
End Fitting	NPT female ends (1” to 2”); ISO flange (3” to 6”)
Body	WCC Grade Carbon steel
Ball	stainless steel
Stem	stainless steel
Stem Packing	spring loaded Teflon® V-ring
Seat	Teflon®
Body Pressure Rating	{415_with_label}
ANSI Class	150
Max Inlet Pressure (Steam)	200 psi
Media Temperature Range (Water)	-22°F to 380°F [-30°C to 193°C]
Media Temperature Range (Steam)	-22°F to 380°F [-30°C to 193°C]
Maximum Differential Pressure (Steam)	100 psi
Max Differential Pressure (Water)	150 psi
Maximum Differential Pressure Steam (Rotary Actuator)	100 psi
Close-Off Pressure	150 psi
Close-Off Pressure (Steam)	200 psi
Rangeability	300:1
Cv	207
Weight	37.5 lb [17 kg]
Leakage	ANSI Class IV
Servicing	repack/rebuild kits available

Dimensions (Inches [mm])



AMB, AMX

A	B	C	D	E	F	H1
12.6” [320]	8” [203]	16.35” [415]	12.05” [306]	3.75” [95]		1.39” [34]

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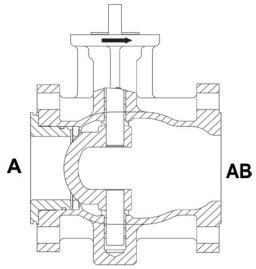
Flow Pattern



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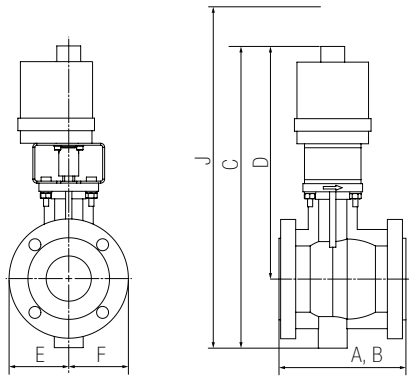
Dimensions (Inches [mm])

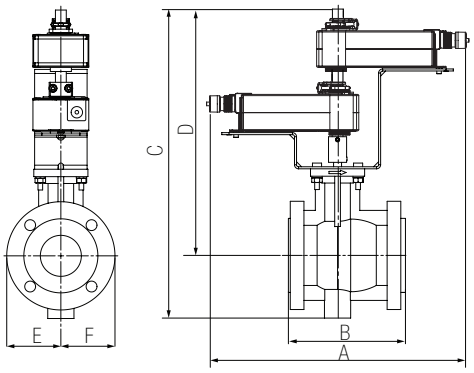


SY1

A	B	C	D	E	F	J
30.87” [784]	8” [203]	18.9” [480]	14.59” [371]	3.75” [95]		23.4” [594]

A	B	C	D	E	F	H1
13” [332]	8” [203]	17.03” [433]	12.73” [323]	3.75” [95]		1.39” [34]

Dimensions (Inches [mm])



2*AFB, 2*AFX

J
30.34” [770]

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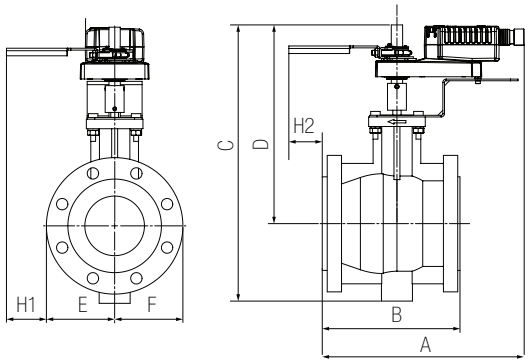
Dimensions (Inches [mm])



GKB, GKX

A	B	C	D	E	F
17.11” [435]	8” [203]	21.55” [547]	17.25” [438]	3.75” [95]	

AFBUP-X1

On/Off, Spring Return, 24 to 240 VAC

Technical Data	
Power Supply	24...240 VAC, -20% / +10%, 50/60 Hz, 24...125 VDC, ±10%
Power Consumption Running	7 W
Power Consumption Holding	3.5 W
Transformer Sizing	7 VA @ 24 VAC (class 2 power source), 8.5 VA @ 120 VAC, 18 VA @ 240 VAC
Electrical Connection	3ft [1m], 18 GA appliance cable with 1/2" conduit connector
Overload Protection	electronic throughout 0° to 95° rotation
Operating Range Y	on/off
Angle of Rotation	95°,
Torque motor	180 in-lbs [20 Nm]
Direction of Rotation (Motor)	reversible with CW/CCW mounting
Direction of Rotation (Fail-Safe)	reversible with CW/CCW mounting
Position Indication	visual indicator, 0° to 95° (0° is full spring return position)
Manual Override	5 mm hex crank (3/16" Allen), supplied
Running Time (Motor)	<75 sec
Running Time (Fail-Safe)	<20 sec
Ambient Humidity	max. 95% RH non-condensing
Ambient Temperature Range	-22°F to 122°F [-30°C to 50°C]
Storage Temperature Range	-40°F to 176°F [-40°C to 80°C]
Housing	IP54, NEMA 2, UL Enclosure Type 2
Housing Material	zinc coated metal and plastic casing
Agency Listings†	cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2004/108/EC and 2006/95/EC
Noise Level (Motor)	<50 dB (A)
Noise Level (Fail-Safe)	<62 dB (A)
Servicing	maintenance free
Quality Standard	ISO 9001
Weight	4.6 lb [2.1 kg]
Degree of Protection IEC/EN	IP54

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

Wiring Diagrams

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.

UP Universal Power Supply (UP) models can be supplied with 24 VAC up to 240 VAC, or 24 VDC up to 125 VDC.

A Actuators with appliance cables are numbered.

Apply only AC line voltage or only UL-Class 2 voltage to the terminals of auxiliary switches. Mixed or combined operation of line voltage/safety extra low voltage is not allowed.

Meets cULus requirements without the need of an electrical ground connection.

1 Provide overload protection and disconnect as required.

45 Actuators may be powered in parallel. Power consumption must be observed.

48 Parallel wiring required for piggy-back applications.