5-year warranty

Technical data

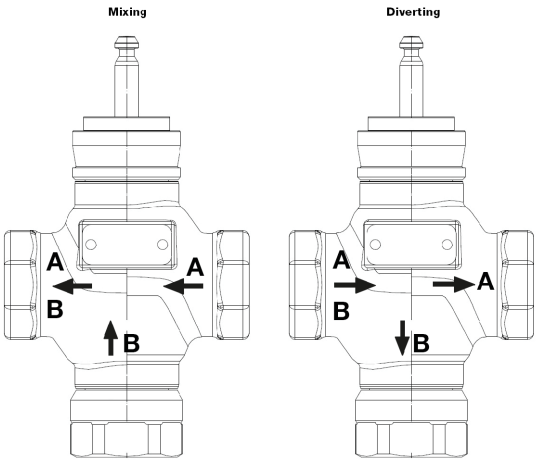
Functional data	Valve Size	1.25" [32]
	Fluid	chilled or hot water, up to 60% glycol
	Fluid Temp Range (water)	20...280°F [-7...138°C]
	Body Pressure Rating	ANSI Class 250, up to 400 psi below 150°F
	Flow characteristic	modified equal percentage, linear B – AB
	Servicing	repack kits available
	Rangeability Sv	A-port 100:1, B-port 50:1
	Flow Pattern	3-way Mixing/Diverting
	Leakage rate	ANSI Class VI
	Controllable flow range	stem up - open B – AB
	Cv	20
	ANSI Class	250
	Body pressure rating note	up to 400 psi below 150°F
Materials	Valve body	Bronze
	Valve plug	brass
	Stem seal	EPDM O-ring
	Seat	Bronze
	Pipe connection	NPT female ends
Suitable actuators	Non-Spring	SVB(X)
	Electronic fail-safe	SVKB(X)

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
- The valve has been designed for use in stationary heating, ventilation and air-conditioning systems and must not be used outside the specified field of application, especially in aircraft or in any other airborne means of transport.
- Only authorised specialists may carry out installation. All applicable legal or institutional installation regulations must be complied during installation.
- The valve does not contain any parts that can be replaced or repaired by the user.
- When determining the flow rate characteristic of controlled devices, the recognised directives must be observed.

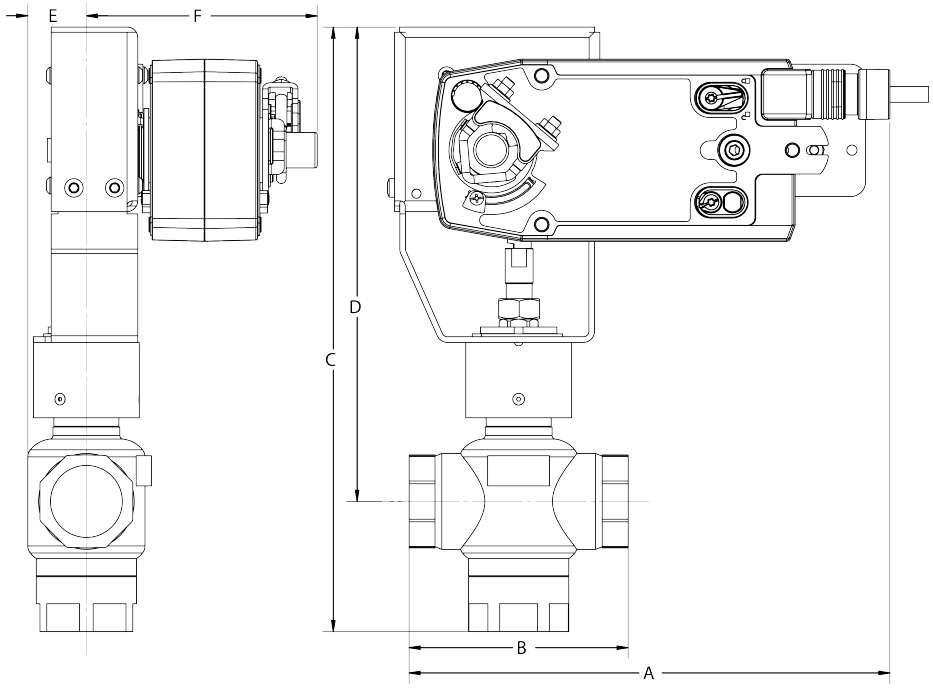
Product features

Flow/Mounting details



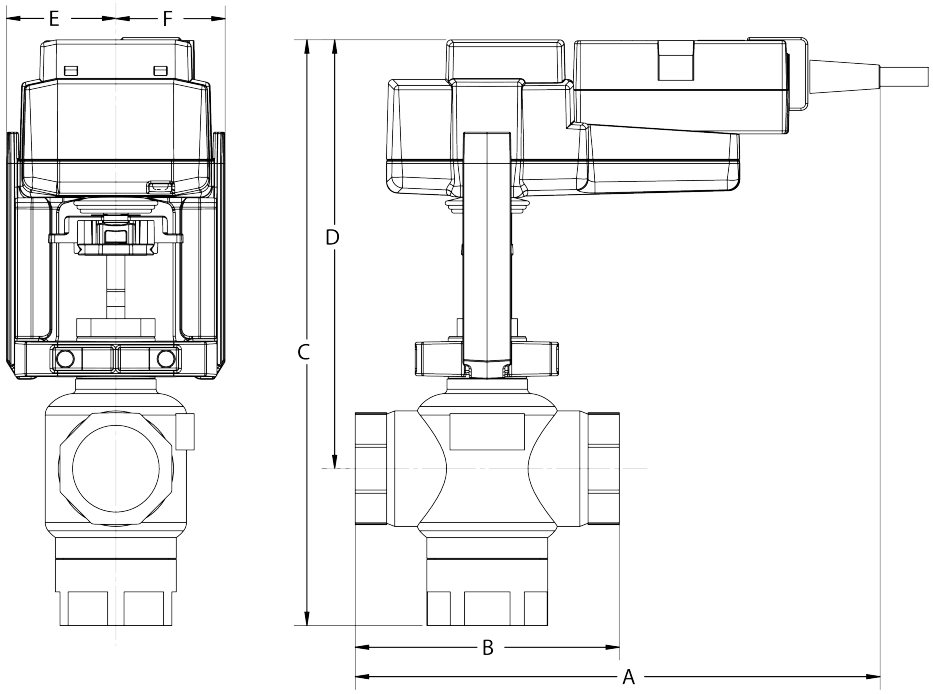
Dimensions

Dimensional drawings



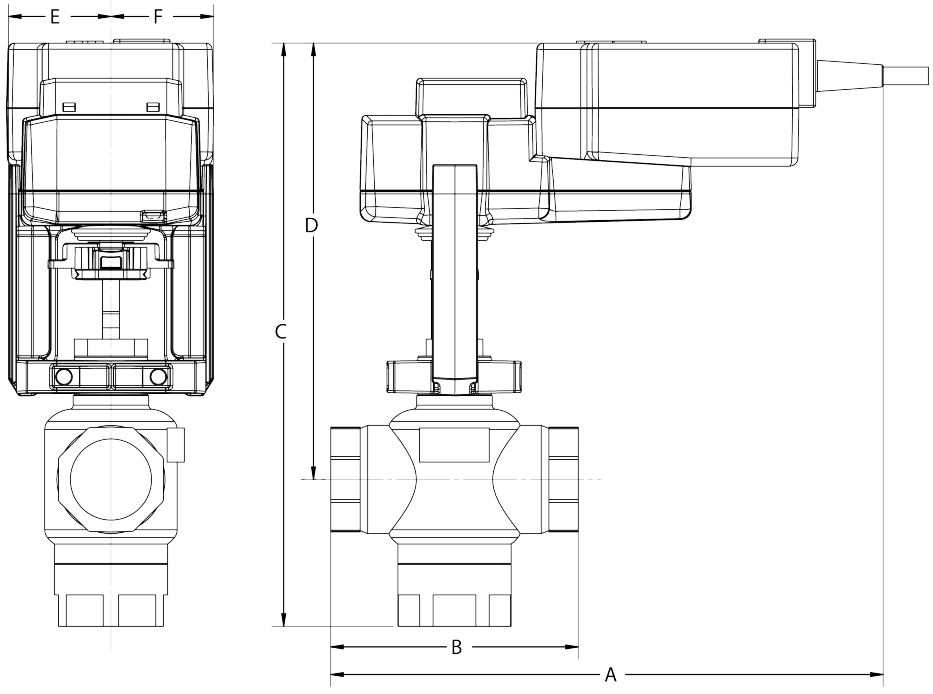
NF

A	B	C	D	E	F
10.2" [260]	4.6" [118]	12.8" [325]	10.2" [260]	1.2" [30]	4.9" [125]



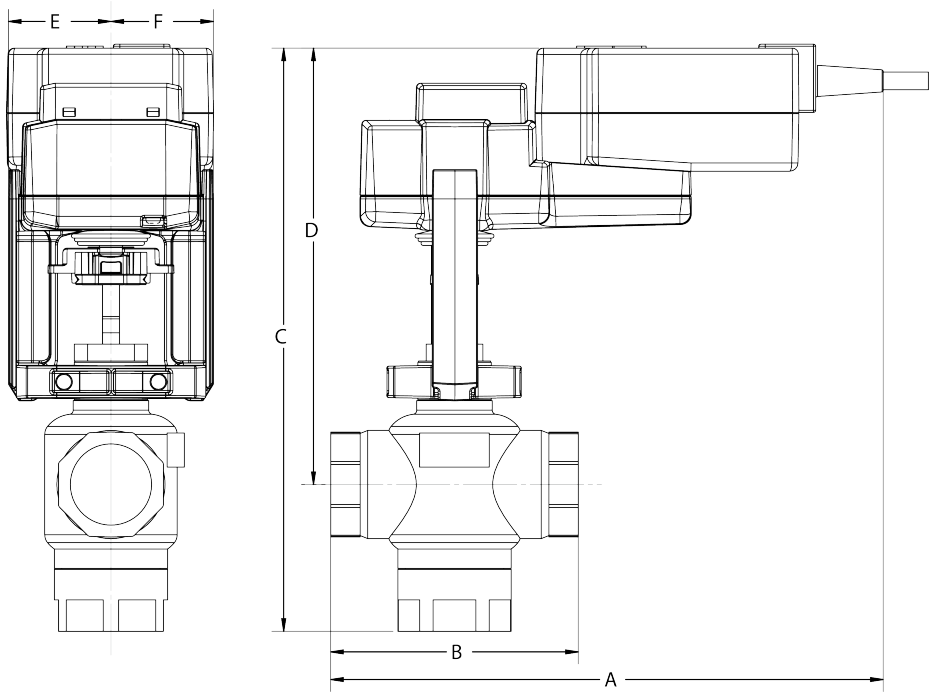
SV

A	B	C	D	E	F
9.2" [234]	4.6" [118]	10.3" [262]	8.5" [216]	1.9" [48]	1.9" [48]



SVK

A	B	C	D	E	F
10.0" [254]	4.6" [118]	11.1" [281]	8.2" [208]	1.9" [48]	1.9" [48]



SVK

A	B	C	D	E	F
10.0" [254]	4.6" [118]	11.1" [281]	8.2" [208]	1.9" [48]	1.9" [48]

BELIMO

On/Off, Spring Return, AC 24...240 V

Technical data sheet NFBUP-X1

5-year warranty

Technical data

Electrical data	Nominal voltage	AC 24...240 V / DC 24...125 V
	Nominal voltage frequency	50/60 Hz
	Power consumption in operation	6 W
	Power consumption in rest position	2.5 W
	Transformer sizing	6 VA @ AC 24 V (class 2 power source), 6.5 VA @ AC 120 V, 9.5 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
Functional data	Direction of motion motor	selectable by ccw/cw mounting
	Direction of motion fail-safe	reversible with cw/ccw mounting
	Manual override	5 mm hex crank (3/16" Allen), supplied
	Angle of rotation	95°,
	Running Time (Motor)	75 s
	Running time fail-safe	<20 s @ -4...122°F [-20...50°C], <60 s @ -22°F [-30°C]
	Noise level, motor	50 dB(A)
	Noise level, fail-safe	62 dB(A)
	Position indication	Mechanical
Safety data	Degree of protection IEC/EN	IP54
	Degree of protection NEMA/UL	NEMA 2 UL Enclosure Type 2
	Agency Listing	cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2014/30/EU and 2014/35/EU; Listed to UL 2043 - suitable for use in air plenums per Section 300.22(c) of the NEC and Section 602.2 of the IMC
	Quality Standard	ISO 9001
	Ambient temperature	-22...122°F [-30...50°C]
	Storage temperature	-40...176°F [-40...80°C]
	Ambient humidity	max. 95% r.H., non-condensing
	Servicing	maintenance-free
Weight	Weight	4.2 lb [1.9 kg]
Materials	Housing material	Galvanized steel and plastic housing

Safety notes

- Base plate for ZS-100.
- Classic GM to GMB(X) retrofit bracket.
- PVC W'Shld for GV w/UGLK (LF)
- ZS-300 Mounting Bracket Set
- 120 to 24 VAC, 40 VA transformer.
- Cable for ZTH US to actuators w/o diagnostics socket.
- PC Tool computer programming interface, serial port.

Electrical installation

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.

INSTALLATION NOTES

A Actuators with appliance cables are numbered.

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

1 Provide overload protection and disconnect as required.

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