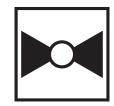






5-year warranty



#### **Technical data**

#### **Functional data**

Valve Size	3" [80]
Fluid	chilled or hot water, up to 60% glycol, steam
Fluid Temp Range (water)	32338°F [0138°C]
Fluid Temp Range (steam)	32280°F [0138°C]
Body Pressure Rating	ANSI Class 125, up to 175 psi below 150°F
Flow characteristic	equal percentage
Servicing	repack/rebuild kits available
Rangeability Sv	91:1
Max Differential Pressure (Steam)	15 psi [103 kPa]
Flow Pattern	2-way
Leakage rate	ANSI Class III
Controllable flow range	stem up - open A – AB
Cv	90
Maximum Inlet Pressure (Steam)	35 psi [241 kPa]
ANSI Class	125
Body pressure rating note	up to 175 psi below 150°F
Valve body	Cast iron - ASTM A126 Class B
Valve plug	brass
Stem seal	NLP EPDM (no lip packing)
Seat	Stainless steel AISI 316
Pipe connection	125 lb flanged
Non-Spring	EVB(X)

### Safety notes



Electronic fail-safe

Suitable actuators

Materials

 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

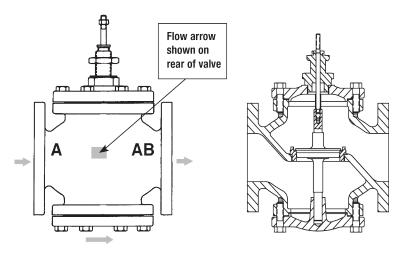
AVKB(X)

- 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**

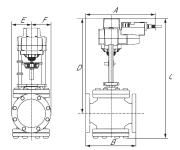


### Flow/Mounting details

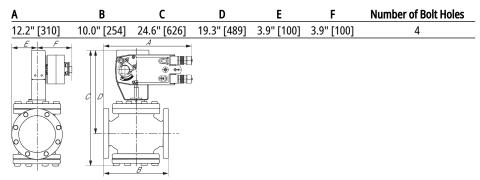


## **Dimensions**

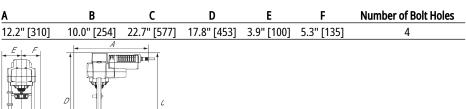
## **Dimensional drawings**



EVB, EVX, RVB, RVX



AFB, AFX



AVKB, AVKX

A	В	С	D	E	F	Number of Bolt Holes
12.2" [310]	10.0" [254]	24.6" [626]	19.3" [489]	3.9" [100]	3.9" [100]	4



Technical data







Electrical data	Nominal voltage	AC 24240 V / DC 24125 V
	Nominal voltage frequency	50/60 Hz
	Power consumption in operation	7.5 W
	Power consumption in rest position	3.5 W
	Transformer sizing	7 VA @ AC 24 V (class 2 power source), 8.5 VA @ AC 120 V, 18 VA @ AC 240 V
	Auxiliary switch	2 x SPDT, 3 A resistive (0.5 A inductive) @ AC 250 V, one set at 10°, one adjustable 1090°
	Switching capacity auxiliary switch	3 A resistive (0.5 A inductive) @ AC 250 V
	Electrical Connection	(2) 18 GA appliance cables with 1/2" conduit connectors, 3 ft [1 m],
	Overload Protection	electronic throughout 095° rotation
Functional data	Position feedback U note	No Feedback
	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
	Noise level, motor	50 dB(A)
	Noise level, fail-safe	62 dB(A)
	Position indication	Mechanical

Safety data

Weight

Materials

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	-22122°F [-3050°C]
Storage temperature	-40176°F [-4080°C]
Ambient humidity	max. 95% r.H., non-condensing
Servicing	maintenance-free
Weight	4.6 lb [2.1 kg]
Housing material	Galvanized steel and plastic housing

## **Electrical installation**

**Technical data sheet AFBUP-S-X1** 

# / 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.



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



(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. 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.



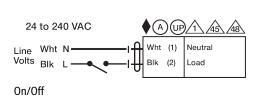
Provide overload protection and disconnect as required.

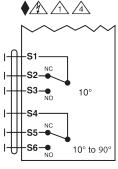
Actuators may also be powered by 24 VDC.

Two built-in auxiliary switches (2x SPDT), for end position indication, interlock control, fan startup, etc. Actuators may be powered in parallel. Power consumption must be observed.



AR Parallel wiring required for piggy-back applications.





**Auxiliary Switches**