ANSI-Flanged Globe Valves

- chilled or hot water, up to 60% glycol, steam
- ANSI Class 125, up to 175 psi below 150°F
- 125
- Cast iron - ASTM A126 Class B

5-year warranty

Type overview

Type	DN
G6125CS	125

Technical data

Functional data	Valve size [mm]	5" [125]
	Fluid	chilled or hot water, up to 60% glycol, steam
	Fluid Temp Range (water)	32...350°F [0...176°C]
	Fluid Temp Range (steam)	32...338°F [0...170°C]
	Body Pressure Rating	ANSI Class 125, up to 175 psi below 150°F
	Flow characteristic	equal percentage
	Leakage rate	ANSI Class III
	Pipe connection	Flange for use with ASME/ANSI class 125
	Servicing	repack/rebuild kits available
	Rangeability Sv	100:1
	Max Differential Pressure (Steam)	50 psi [345 kPa]
	Flow Pattern	2-way
	Controllable flow range	stem up - open A – AB
	Cv	263
	Maximum Inlet Pressure (Steam)	100 psi [690 kPa]
Materials	Valve body	Cast iron - ASTM A126 Class B
	Valve plug	Stainless steel
	Stem	316 stainless steel
	Stem seal	NLP EPDM (no lip packing)
	Seat	Stainless steel AISI 316
Suitable actuators	Non Fail-Safe	EVB(X)
	Spring	2*AFB(X)
	Electronic fail-safe	AVKB(X)

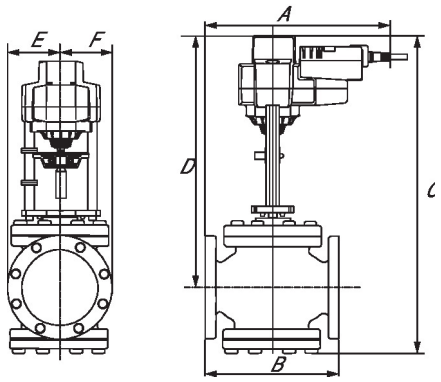
Safety notes

- 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 authorized specialists may carry out installation. All applicable legal or institutional installation regulations must be complied with 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.

Dimensions

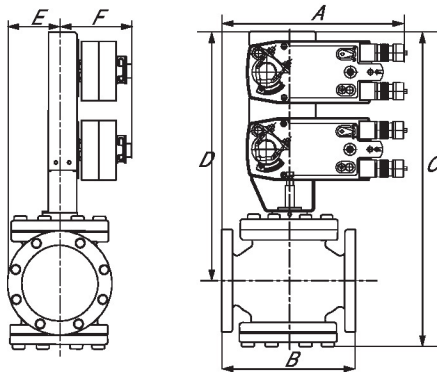
Type	DN	Weight
G6125CS	125	180 lb [81 kg]

EVB, EVX, RVB, RVX



A	B	C	D	E	F	Number of Bolt Holes
16.4" [416]	15.7" [400]	25.4" [646]	17.5" [445]	5.0" [127]	5.0" [127]	8

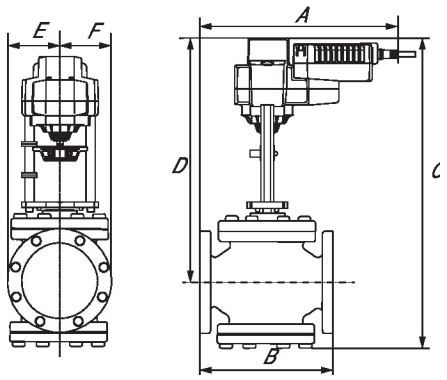
2*AFB, 2*AFX



A	B	C	D	E	F	Number of Bolt Holes
14.8" [377]	15.7" [400]	28.7" [730]	21.0" [533]	5.0" [127]	5.3" [135]	8

Dimensions

AVKB, AVKX



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16.4" [416]	15.7" [400]	25.4" [646]	17.5" [445]	5.0" [127]	5.0" [127]	8

MFT/programmable, Electronic fail-safe, 24 V

5-year warranty

Technical data

Electrical data	Nominal voltage	AC/DC 24 V
	Nominal voltage frequency	50/60 Hz
	Nominal voltage range	AC 19.2...28.8 V / DC 21.6...28.8 V
	Power consumption in operation	5 W
	Power consumption in rest position	2 W
	Transformer sizing	9.5 VA
	Electrical Connection	18 GA plenum cable, 1 m, with 1/2" NPT conduit connector, degree of protection NEMA 2 / IP54
	Overload Protection	electronic throughout full stroke
	Electrical Protection	actuators are double insulated
Functional data	Actuating force motor	2000 N [450 lbf]
	Operating range Y	2...10 V
	Operating range Y note	4...20 mA w/ ZG-R01 (500 Ω, 1/4 W resistor)
	Input impedance	100 kΩ for 2...10 V (0.1 mA), 500 Ω for 4...20 mA, 1500 Ω for PWM, On/Off and Floating point
	Operating range Y variable	Start point 0.5...30 V End point 2.5...32 V
	Operating modes optional	variable (VDC, PWM, on/off, floating point)
	Position feedback U	2...10 V
	Position feedback U note	Max. 0.5 mA
	Position feedback U variable	VDC variable
	Bridging time (PF)	2 s
	Pre-charging time	5...20 s
	Direction of motion motor	selectable with switch
	Direction of motion fail-safe	reversible with switch
	Manual override	5 mm hex crank (3/16" Allen), supplied
	Stroke	1.25" [32 mm]
	Running Time (Motor)	90 s /
	Running time motor variable	90...150 s
	Running time fail-safe	<35 s
	Noise level, motor	60 dB(A)

Technical data

Functional data	Noise level, fail-safe	60 dB(A)
	Position indication	Mechanical, with pointer
Safety data	Power source UL	Class 2 Supply
	Degree of protection IEC/EN	IP54
	Degree of protection NEMA/UL	NEMA 2
	Enclosure	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
	Quality Standard	ISO 9001
	Ambient humidity	Max. 95% RH, non-condensing
	Ambient temperature	-22...122°F [-30...50°C]
	Storage temperature	-40...176°F [-40...80°C]
	Servicing	maintenance-free
Weight	Weight	[]
Materials	Housing material	Die cast aluminium and plastic casing

Footnotes † Use flexible metal conduit. Push the listed conduit fitting device over the actuator's cable to butt against the enclosure. Screw in conduit connector. Jacket the actuators input wiring with listed flexible conduit. Properly terminate the conduit in a suitable junction box. Rated impulse Voltage 800V. Type of action 1. Control pollution degree 3.

Accessories

Gateways	Description	Type
	Gateway MP to BACnet MS/TP	UK24BAC
	Gateway MP to Modbus RTU	UK24MOD
	Gateway MP to LonWorks	UK24LON

Electrical accessories	Description	Type
	Service tool, with ZIP-USB function, for programmable and communicative Belimo actuators, VAV controller and HVAC performance devices	ZTH US

Tools	Description	Type
	Connecting cable 10 ft [3 m], A: RJ11 6/4 ZTH EU, B: 3-pin Weidmüller and supply connection	ZK4-GEN
	Service tool, with ZIP-USB function, for programmable and communicative Belimo actuators, VAV controller and HVAC performance devices	ZTH US

Electrical installation

INSTALLATION NOTES

2 Actuators may be connected in parallel. Power consumption and input impedance must be observed.

3 Actuators may also be powered by DC 24 V.

7 A 500 Ω resistor (ZG-R01) converts the 4...20 mA control signal to 2...10 V.

8 Control signal may be pulsed from either the Hot (Source) or Common (Sink) 24 V line.

9 For triac sink the common connection from the actuator must be connected to the hot connection of the controller. Contact closures A & B also can be triacs. A & B should both be closed for the triac source and open for triac sink.

18 Actuators with plenum cable do not have numbers; use color codes instead.

Electrical installation

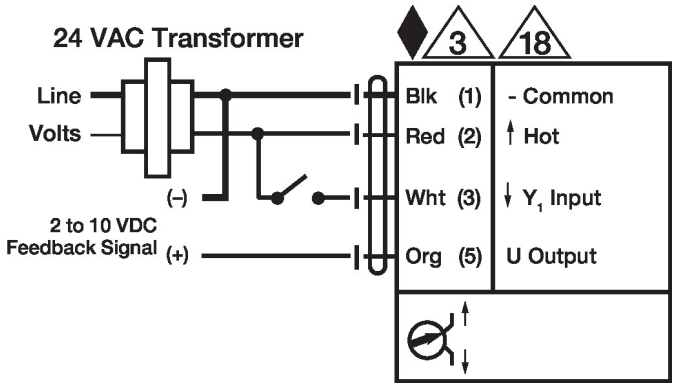
Meets cULus requirements without the need of an electrical ground connection.

Warning! Live electrical components!

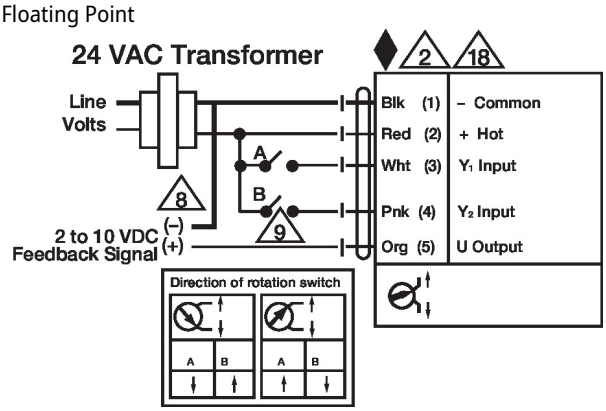
During installation, testing, servicing and troubleshooting of this product, it may be necessary to work with live electrical components. Have a qualified licensed electrician or other individual who has been properly trained in handling live electrical components perform these tasks. Failure to follow all electrical safety precautions when exposed to live electrical components could result in death or serious injury.

Wiring diagrams

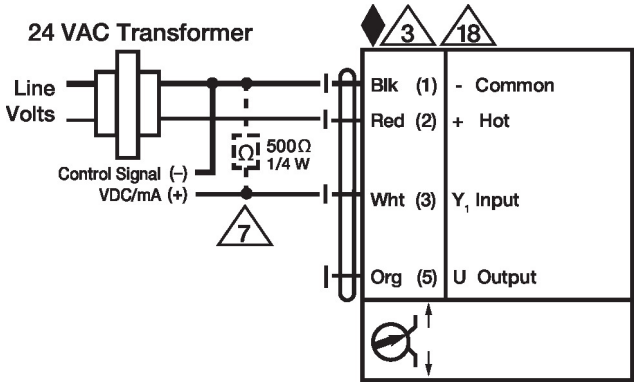
On/Off



Floating Point



VDC / 4 to 20 mA



Override Control Min, Mid, Max Positions