





Type G7125DS  Technical data  Functional data  Valve size [mm] Fluid Fluid Fluid Chilled or hot water, up to 60% glycol Fluid Temp Range (water) Body Pressure Rating Flow characteristic Flow characteristic Servicing Flow repack/rebuild kits available	Type overview		
Technical data  Functional data  Valve size [mm] 5" [125]  Fluid chilled or hot water, up to 60% glycol  Fluid Temp Range (water) 32300°F [0149°C]  Body Pressure Rating ANSI Class 125, up to 175 psi below 150°F  Flow characteristic linear	Туре		DN
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Flow characteristic linear		Fluid Temp Range (water)	32300°F [0149°C]
		Body Pressure Rating	ANSI Class 125, up to 175 psi below 150°F
Servicing repack/rebuild kits available		Flow characteristic	linear
Tepacio resulta di savaltasi e		Servicing	repack/rebuild kits available
Rangeability Sv 50:1		Rangeability Sv	50:1
Flow Pattern 3-way Diverting		Flow Pattern	3-way Diverting
Leakage rate ANSI Class III		Leakage rate	ANSI Class III
Controllable flow range stem up - open AB – B		Controllable flow range	stem up - open AB – B
<u>Cv</u> 195		Cv	195
Materials Valve body Cast iron - ASTM A126 Class B	Materials	Valve body	Cast iron - ASTM A126 Class B
Valve plug Stainless steel		Valve plug	Stainless steel
Stem 316 stainless steel		Stem	316 stainless steel
Stem seal NLP EPDM (no lip packing)		Stem seal	NLP EPDM (no lip packing)
Seat Stainless steel AISI 316		Seat	Stainless steel AISI 316
Pipe connection 125 lb flanged		Pipe connection	125 lb flanged

#### Safety notes



Suitable actuators

Non-Spring

Electrical fail-safe

Spring

 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

EVB(X) (2\*AFB(X))

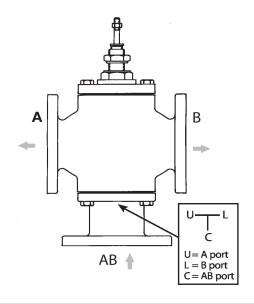
AVKB(X)

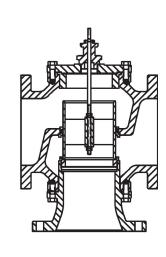
- The valve has been designed for use in stationary heating, ventilation and air-conditioning systems and must not be used outside the specified field of application, especially in aircraft or in any other airborne means of transport.
- Only authorized specialists may carry out installation. All applicable 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**

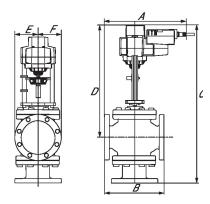
# Flow/Mounting details





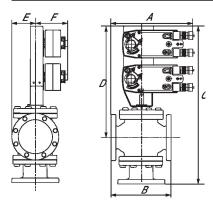
# **Dimensions**

Туре	DN	Weight	
G7125DS	125	152.15 lb [69 kg]	



EVB, EVX, RVB, RVX

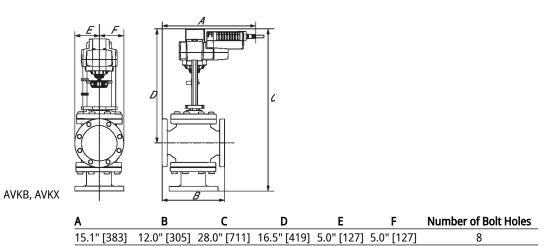
Α	В	C	D	E	F	Number of Bolt Holes
15 1" [383]	12 0" [305]	28 0" [711]	16.5" [419]	5 0" [127]	5 0" [127]	8



2\*AFB, 2\*AFX

Α	В	С	D	E	F	Number of Bolt Holes
15.1" [383]	12.0" [305]	31.5" [800]	21.0" [533]	5.0" [127]	5.3" [135]	8





www.belimo.com



# **Technical data sheet**

EVX24-MFT

Modulating, Non-Spring Return, Linear, 24 V, Multi-Function Technology®







# **Technical data**

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Nominal voltage	AC/DC 24 V
Nominal voltage frequency	50/60 Hz
Nominal voltage range	AC 19.228.8 V / DC 21.628.8 V
Power consumption in operation	5 W
Power consumption in rest position	1.5 W
Transformer sizing	7.5 VA
Electrical Connection	18 GA plenum cable, 1 m, with 1/2" 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	2500 N [560 lbf]
Operating range Y	210 V
Operating range Y note	420 mA w/ ZG-R01 (500 Ω, 1/4 W resistor)
Input Impedance	100 k $\Omega$ for 210 V (0.1 mA), 500 $\Omega$ for 420 mA, 1500 $\Omega$ for PWM, On/Off and Floating point
Operating range Y variable	Start point 0.530 V End point 2.532 V
Operating modes optional	variable (VDC, PWM, on/off, floating point)
Position feedback U	210 V
Position feedback U note	Max. 0.5 mA
Position feedback U variable	VDC variable
Direction of motion motor	selectable with switch 0/1
Manual override	5 mm hex crank (3/16" Allen), supplied
Stroke	2" [50 mm]
Running Time (Motor)	90 s /
Running time motor variable	90150 s
Noise level, motor	60 dB(A)
Position indication	Mechanically, 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
UL 2043 Compliant	Suitable for use in air plenums per Section 300.22(C) of the NEC and Section 602 of the IMC
Ambient humidity	Max. 95% RH, non-condensing



	Technical data sheet	EVX24-MFT
Safety data	Ambient temperature	-22122°F [-3050°C]
	Storage temperature	-40176°F [-4080°C]
	Servicing	maintenance-free
Weight	Weight	5.73 lb [2.6 kg]
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.

cessories		
Gateways	Description	Туре
	Gateway MP to BACnet MS/TP	UK24BAC
	Gateway MP to Modbus RTU	UK24MOD
	Gateway MP to LonWorks	UK24LON
Electrical accessories	Description	Туре
	Belimo PC-Tool, Software for adjustments and diagnostics	MFT-P
	Auxiliary switch 2 x SPDT for NG GV Actuators	S2A-GV
	Service Tool, with ZIP-USB function, for programmable and	ZTH US
	communicative Belimo actuators, VAV controller and HVAC performance devices	
Tools	Description	Туре
	Connection 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

#### **Electrical installation**



devices

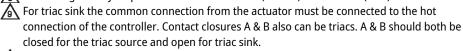
#### > INSTALLATION NOTES

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



 $\checkmark$  Actuators may also be powered by DC 24 V.

 $\Lambda$  A 500  $\Omega$  resistor (ZG-R01) converts the 4...20 mA control signal to 2...10 V. <u> R</u> Control signal may be pulsed from either the Hot (Source) or Common (Sink) 24 V line.





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

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.

**ZTH US** 



### Wiring diagrams

