



5-year warranty



Technical data

Electrical data	Nominal voltage	AC/DC 24 V
	Nominal voltage frequency	50/60 Hz
Functional data	Valve Size	1" [25]
	Communicative control	BACnet IP BACnet MS/TP Modbus RTU Modbus TCP MP-Bus
	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 k Ω (0.1 mA), 500 Ω
	Options positioning signal	VDC variable
	Position feedback U	2...10 V
	Position feedback U variable	VDC variable
	Running Time (Motor)	90 s
	Running time fail-safe	<35 s
	Noise level, fail-safe	45 dB(A)
	Control accuracy	$\pm 5\%$
	Fluid	chilled or hot water, up to 60% glycol max (open loop/steam not allowed)
	Fluid Temp Range (water)	14...250°F [-10...120°C]
	Close-off pressure Δp_s	200 psi
	Differential Pressure Range	5...50 psi or 1...50 psi see flow reductions chart in tech doc
	GPM	18.2
	Servicing	maintenance-free
	Manual override	external push button
Flow measurement	Measuring accuracy flow	$\pm 2\%^*$
	Flow Measurement Repeatability	$\pm 0.5\%$
	Sensor Technology	ultrasonic with glycol and temperature compensation
Temperature measurement	Remote Temperature Sensor Length	Standard: 2 ft. 7.5 in. [0.8m], 9.8 ft. [3m]
Safety data	Degree of protection IEC/EN	IP54
	Degree of protection NEMA/UL	NEMA 1
	Enclosure	UL Enclosure Type 1
	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 temperature	-22...122°F [-30...50°C]

Materials

Storage temperature	-40...176°F [-40...80°C]
Ambient humidity	max. 95% r.H., non-condensing
Valve body	Nickel-plated brass body
Flow measuring pipe	brass body nickel-plated
Stem seal	EPDM (lubricated)
Seat	PTFE
Pipe connection	NPT female ends
O-ring	EPDM
Ball	stainless steel

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

Product features

Flow measurement *All flow tolerances are at 68°F [20°C] & water.

Accessories

Electrical accessories	Description	Type
	Replacement flow sensor for Belimo Energy Valve™, Ultrasonic 1" 25	M2425-EV
	Service Tool, with ZIP-USB function, for parametrisable and communicative Belimo actuators, VAV controller and HVAC performance devices	ZTH US
Mechanical accessories	Description	Type
	Weather shield for Belimo Energy Valve™, 1...2" [25...50], Ultrasonic models only	ZS-EPIV-EV-50-SCNF

Electrical installation



INSTALLATION NOTES

- Ⓐ Actuators with appliance cables are numbered.
- 2 Actuators may be connected in parallel. Power consumption and input impedance must be observed.
- 3 Actuators may also be powered by 24 VDC.
- 18 Actuators with plenum cable do not have numbers; use color codes instead.

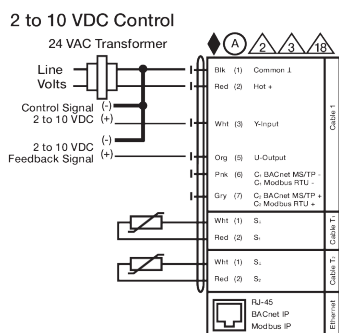


Meets cULus requirements without the need of an electrical ground connection.



Warning! Live Electrical Components!

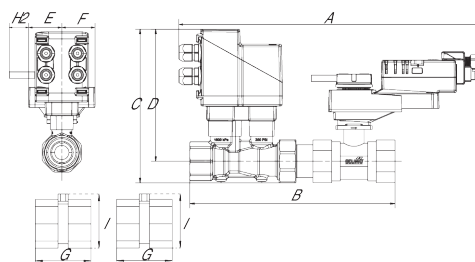
During installation, testing, servicing and troubleshooting of this product, it may be necessary to work with live electrical components. Have a qualified licensed electrician or other individual who has been properly trained in handling live electrical components perform these tasks. Failure to follow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



2...10 V, BACnet MSTP/IP, Modbus RTU/IP

Dimensions

Dimensional drawings



A	B	C	D	E	F	G	H2	I
15.4" [391]	9.1" [231]	7.3" [185]	6.5" [165]	1.5" [39]	1.5" [39]	2.5" [64]	0.8" [20]	3.2" [82]