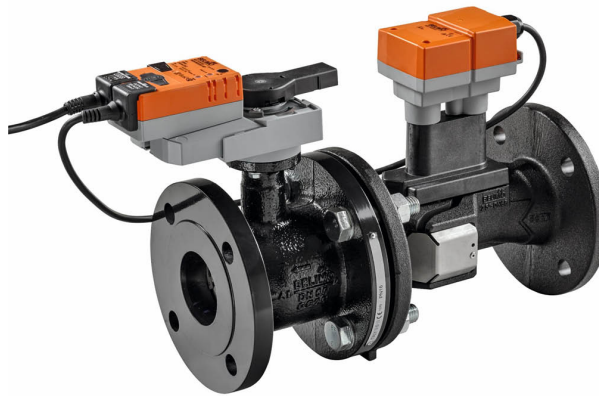


- Nominal voltage AC/DC 24 V
- Control communicative
- Communication via BACnet MS/TP, Modbus RTU, Belimo-MP-Bus or conventional control
- Conversion of active sensor signals and switching contacts



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	8.5 W	
	Transformer sizing	11 VA	
Data bus communication	Communicative control	BACnet MS/TP MP-Bus Modbus RTU	
	Functional data	Valve size [mm]	3" [80]
		Operating range Y	2...10 V
Operating range Y note		Hybrid via 2...10 V	
Input Impedance		100 kΩ (0.1 mA), 500 Ω	
Operating modes optional		VDC variable	
Position feedback U		2...10 V	
Position feedback U variable		VDC variable	
Running Time (Motor)		90 s	
Sound power level Motor		45 dB(A)	
Control accuracy		±5%	
Min. controllable flow		1% of V'nom	
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 Δps		175 psi	
Differential Pressure Range		5...50 psi or 1...50 psi see flow reductions chart in tech doc	
Flow characteristic		equal percentage or linear	
Body Pressure Rating		ANSI Class 125, standard class B, flat-face	
GPM		180	
Servicing		maintenance-free	
Manual override	external push button		
Flow measurement	Measuring accuracy flow	±2%*	
	Measurement Repeatability	±0.5% (Flow)	
	Sensor Technology	Ultrasonic with glycol and temperature compensation	
Safety data	Power source UL	Class 2 Supply	

Safety data	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
	Ambient temperature	-22...122°F [-30...50°C]
	Storage temperature	-40...176°F [-40...80°C]
	Materials	Valve body
Flow measuring pipe		Ductile cast iron - GGG50
Stem		stainless steel
Stem seal		EPDM (lubricated)
Characterized disc		stainless steel
Seat		PTFE
Pipe connection		pattern to mate with ANSI 125 flange
O-ring		EPDM (lubricated)
Ball		stainless steel

Safety notes


- This device 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.
- Outdoor application: only possible in case that no (sea) water, snow, ice, insulation or aggressive gases interfere directly with the actuator and that is ensured that the ambient conditions remain at any time within the thresholds according to the data sheet.
- Only authorized specialists may carry out installation. All applicable legal or institutional installation regulations must be complied during installation.
- The device contains electrical and electronic components and must not be disposed of as household refuse. All locally valid regulations and requirements must be observed.

Product features

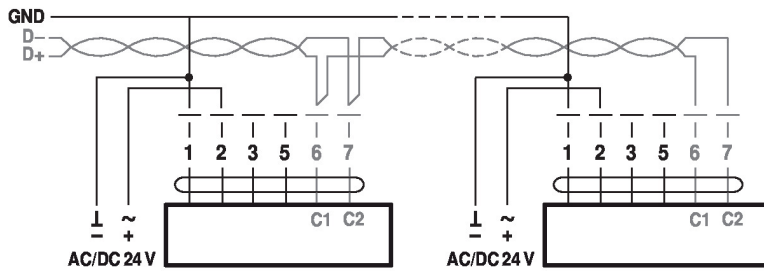
Flow measurement *All flow tolerances are at 68°F [20°C] & water.

Accessories

Electrical accessories	Description	Type
	Replacement flow sensor for EPIV, electromagnetic	EPIVFS-60
	Service Tool, with ZIP-USB function, for programmable and communicative Belimo actuators, VAV controller and HVAC performance devices	ZTH US
Mechanical accessories	Description	Type
	Weather shield for Belimo Energy Valve™, 65...80, Ultrasonic models only	ZS-EPIV-EV-80U

Electrical installation

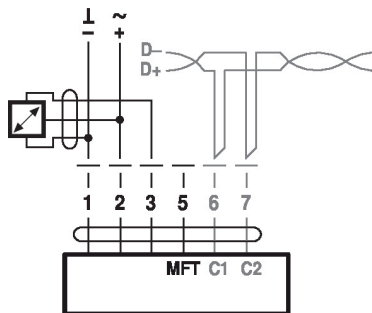
BACnet MS/TP / Modbus RTU



Cable colors:

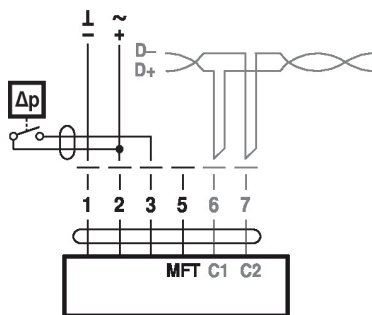
- 1= black
 - 2 = red
 - 3 = white
 - 5 = orange
 - 6 = pink
 - 7 = grey
- BACnet / Modbus signal assignment:
 C1 = D- = A
 C2 = D+ = B

Connection with active sensor, e.g. 0...10 V @ 0...50°C



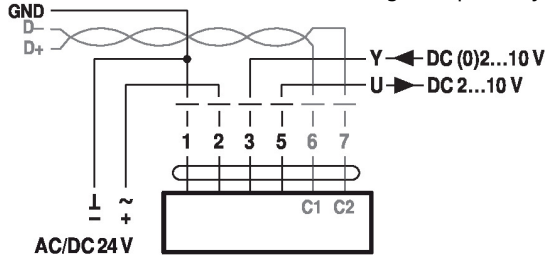
Possible voltage range:
 0...32 V (resolution 30 mV)

Connection with switching contact, e.g. Δp monitor

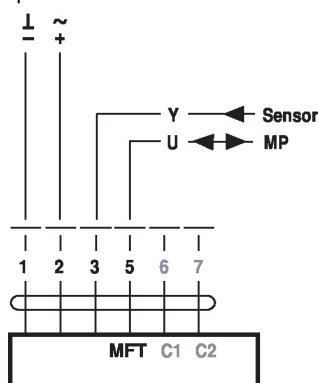


Requirements for switching contact:
 The switching contact must be able to accurately switch a current of 16 mA @ 24 V.

Modbus RTU / BACnet MS/TP with analogue setpoint (hybrid mode)

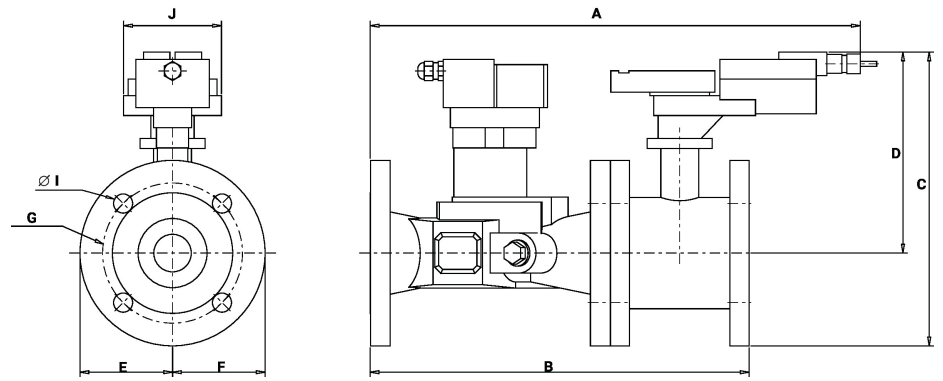


Operation on the MP-Bus



Dimensions

Dimensional drawings



A	B	C	D	E	F	G	I	J
20.6" [522]	17.0" [433]	11.8" [300]	7.9" [200]	3.9" [100]	3.9" [100]	6" [152]	0.8" [20]	3.9" [100]