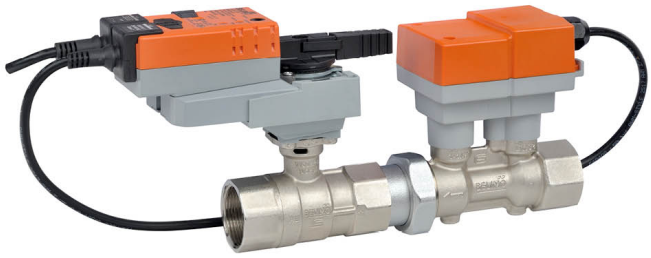
BELIMO

Electronic Pressure Independent Valve, 2-way, internal thread, (EPIV)

- **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**

Technical data sheet P2050SU-055+LRX24-EP2-MOD



5-year warranty

BACnet

Modbus

MP-BUS

Technical data

Electrical data	Nominal voltage	AC/DC 24 V
	Nominal voltage frequency	50/60 Hz
	Power consumption in operation	3.5 W
Functional data	Valve Size	0.5" [15]
	Torque motor	45in-lb [5Nm]
	Communicative control	BACnet MS/TP MP-Bus Modbus RTU
	Operating range Y	2...10 V
	Operating range Y note	Hybrid via 2...10 V
	Input Impedance	100 kΩ (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
	Sound power level Motor	dB(A)
	Control accuracy	±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 Δps	200 psi
	Differential Pressure Range	5...50 psi or 1...50 psi see flow reductions chart in tech doc
	GPM	5.5
	Servicing	maintenance-free
	Manual override	external push button
Flow measurement	Measuring accuracy flow	±2%*
	Flow Measurement Repeatability	±0.5%
	Sensor Technology	ultrasonic with glycol and temperature compensation
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
	Ambient temperature	-22...122°F [-30...50°C]
	Storage temperature	-40...176°F [-40...80°C]
	Ambient humidity	max. 95% r.H., non-condensing
Materials	Valve body	Nickel-plated brass body
	Flow measuring pipe	brass body nickel-plated
	Stem seal	EPDM (lubricated)
	Characterizing disk	stainless steel TEFZEL®
	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 EPIV, Ultrasonic 1/2" 15	M2415-EP
	Service Tool, with ZIP-USB function, for parametrisable and communicative Belimo actuators, VAV controller and HVAC performance devices	ZTH US

Electrical installation

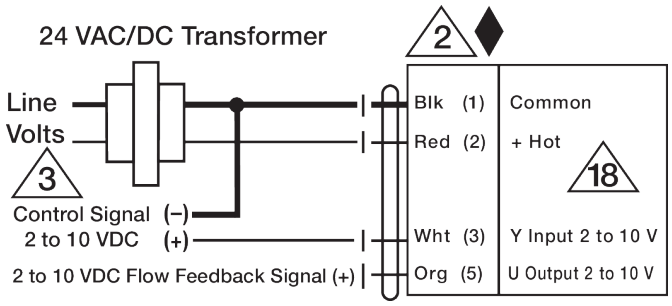
INSTALLATION NOTES

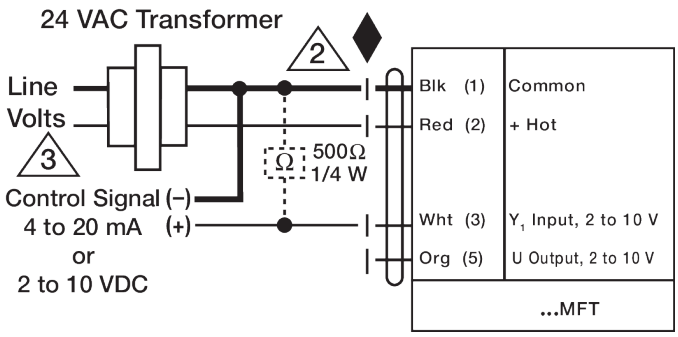
1 Provide overload protection and disconnect as required.
2 Actuators may be connected in parallel. Power consumption and input impedance must be observed.
3 Actuators may also be powered by 24 VDC.
4 Actuators are provided with color coded wires. Wire numbers are provided for reference.
16 Actuators are provided with a numbered screw terminal strip instead of a cable.
21 IN4004 or IN4007 diode required
Meets cULus requirements without the need of an electrical ground connection.

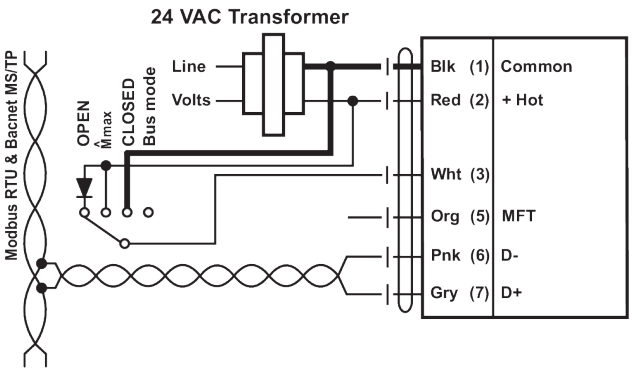
Warning! Live Electrical Components!

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.

AC/DC 24 V Transformer

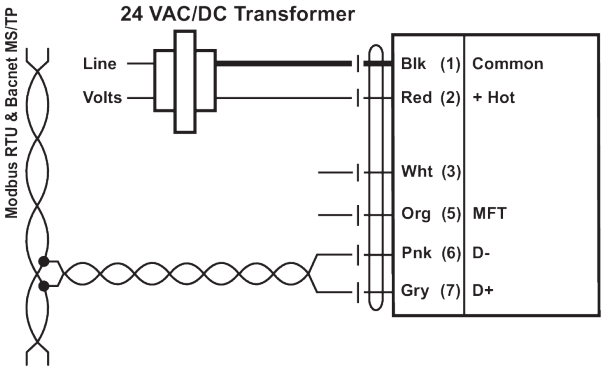






Modbus & BACnet control with local override (AC only, analog override) for Non-Spring Return

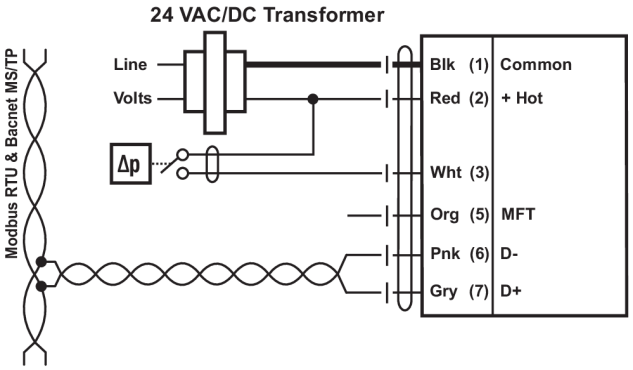
Note:
If no sensor is integrated, then connection 3 (Y) is available for the protective circuit of a local override control. Options: CLOSED, Vmax, OPEN



Modbus & BACnet control for Non-Spring Return

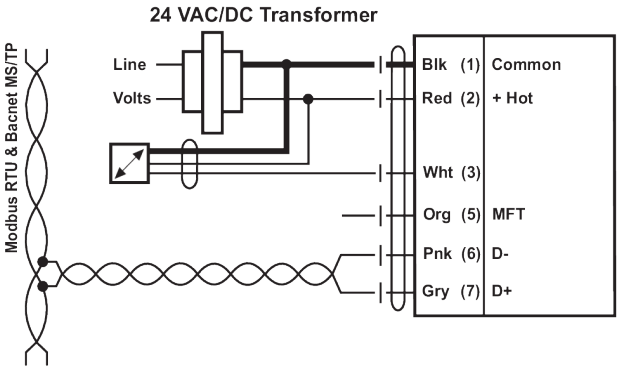
Note:
Modbus signal assignment:
C_1 = D- = A
C_2 = D+ = B

Power supply and communication are not galvanically isolated.
Interconnect ground signal of the devices.



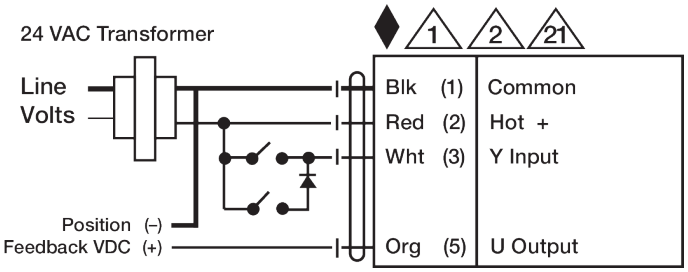
Modbus & BACnet control with switching contact for Non-Spring Return

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



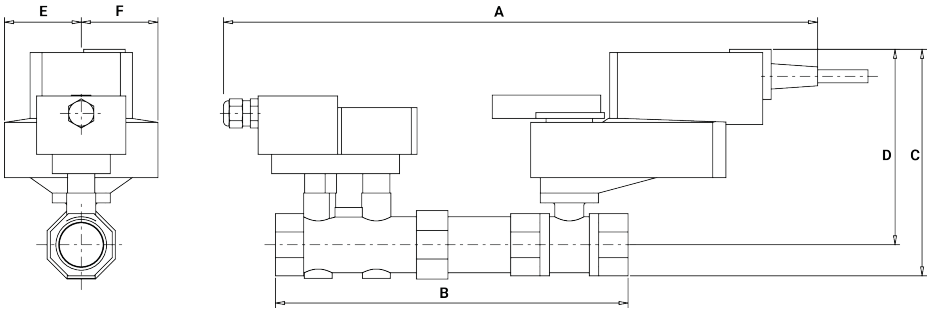
Modbus &BACnet control with active sensor for Non-Spring Return

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



Dimensions

Dimensional drawings



A	B	C	D	E	F
14.1" [358]	7.5" [191]	5.5" [139]	4.9" [125]	2.0" [51]	2.0" [51]