

**Type Overview** 





<b>Type</b> P2150SU-396+NRX24-EP2-MOD		<b>DN</b> 40
Technical data		
Electrical data	Nominal voltage	AC/DC 24 V
	Nominal voltage frequency	50/60 Hz
Functional data	Operating range Y	210 V
	Operating range Y note	Hybrid via 210 V
	Input Impedance	100 kΩ (0.1 mA), 500 Ω
	Options positioning signal	VDC variable
	Position feedback U	210 V
	Position feedback U variable	VDC variable
	Running Time (Motor)	90 s
	Control accuracy	±5%
	Fluid	chilled or hot water, up to 60% glycol max (open loop/steam not allowed)
	Close-off pressure Δps	200 kPa
	Servicing	maintenance-free
	Manual override	external push button
Flow measurement	Measuring accuracy flow	±2%*
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	-22122°F [-3050°C]
	Storage temperature	-40176°F [-4080°C]

# Safety notes



Materials

- Cable for ZIP-RS232 US and ZIP-USB-MP US to Belimo gateways.
- Battery Back Up System for SY(7~10)-110
- 120 to 24 VAC, 40 VA transformer.

Ambient humidity

Flow measuring pipe

- 50% voltage divider kit (resistors with wires).
- PC Tool computer programming interface, serial port.

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

max. 95% r.H., non-condensing

brass body nickel-plated





#### **Accessories**

Sähköiset lisävarusteet	Kuvaus	Тууррі
		M2415-EP

Service Tool, with ZIP-USB function, for configurable and communicative Belimo actuators / VAV controller and HVAC performance devices

**ZTH US** 

### **Electrical installation**

# > INSTALLATION NOTES

/1\ Provide overload protection and disconnect as required.

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

3 Actuators may also be powered by 24 VDC.

Actuators are provided with color coded wires. Wire numbers are provided for reference.

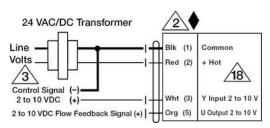
 $f_{16}$  Actuators are provided with a numbered screw terminal strip instead of a cable.

/21\ IN4004 or IN4007 diode required

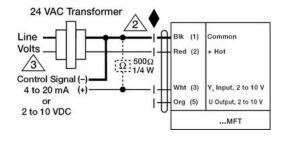
Meets cULus requirements without the need of an electrical ground connection.

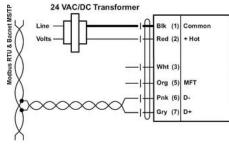
# **Warning! Live Electrical Components!**

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.



24 VAC/DC Transformer



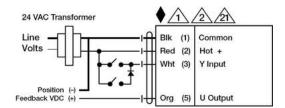


Modbus & BACnet control for Non-Spring Return

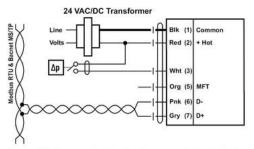
Modbus signal assignment:  $C_1 = D_2 = A$ 

 $C_2 = D_+ = B$ 

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



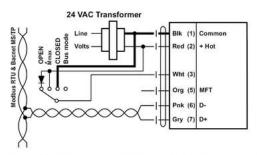




Modbus & BACnet control with switching contact for Non-Spring Return

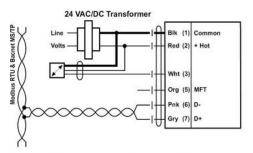
#### Requirements for switching contact:

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



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

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 with active sensor for Non-Spring Return

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

# **Dimensions**

### **Dimensional drawings**

