

MP131-24T,-24F, -24MP

Actuators for Floating and Proportional Control



Product Description

MP131 actuators are used together with automatically balanced combination valve type SmartX PIBCV for 1/2" to 1-1/4". Typical applications are temperature control and permanent automatic balancing on terminal units (fan-coils, chilled ceilings, air-handling units).

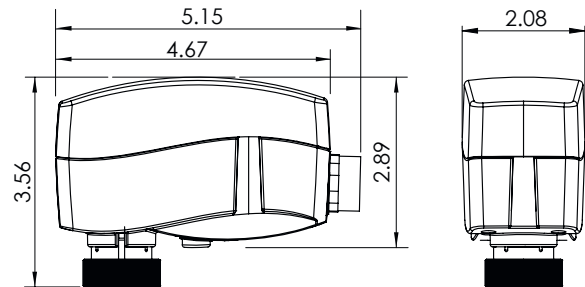
Specifications

Part Numbers	MP131-24T MP131-24F MP131-24MP
Power supply	24 Vac +10... -15 %
Power consumption running	1, 24MP: 1.5 VA
standby	0, 24MP: 0.4 W
Frequency	50/60 Hz
24MP:	V 0...10 (2-10) Ri = 200 kΩ
Control input Y	mA 0...20 (4-20) Ri = 500 Ω
Control output X (V)	0...10 Ro (min) = 38 kΩ
Close off force	
MP131-24T	130 N
MP131-24F	
MP131-24MP	
Stroke	
MP131-24T	5 mm
MP131-24F	
MP131-24MP	
Speed	
MP131-24T	12 s/mm
MP131-24F	24 s/mm
MP131-24MP	
Relative humidity	max. 80 %
Max. medium temperature	240 °F (120 °C)
Ambient temperature	0...131 °F (0...55 °C)
Storage and transport temperature	-40...158 °F (-40...70 °C)
Protection class	IP42
Weight	.66 lbs (0.3 kg)
Agency Listings	Underwriters Laboratory (E489326) compliance as Electric Actuators, cULus LISTED per UL60730 and CSA E60730. European Community compliance per EMC directive (2014/30/EU) and LVD directive (2014/35/EU). Australian/New Zealand community RCM mark.

Features

- Gap detection at stem up position
- 3 point version
- Force switch-off at stem down position prevents overload of actuator and valve
- No tools required for mounting
- Maintenance-free lifetime
- Low-noise operation

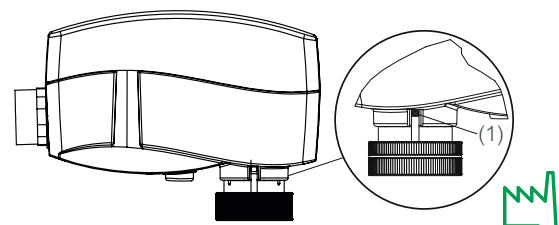
Dimensions (inches)

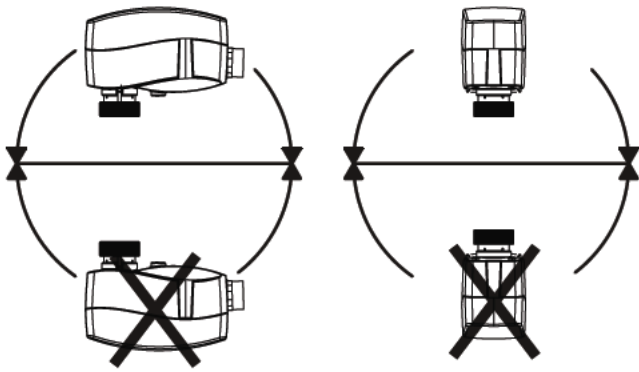


Mounting and Installation

The actuator should be mounted with the valve stem in either horizontal position or pointing upwards. The actuator is fixed to the valve body by means of a ribbed nut which requires no tools for mounting. The ribbed nut should be tightened by hand.

1. Check the valve neck. The actuator should be in stem up position (factory setting) and mounted securely on the valve body.
2. Wire the actuator according to the wiring diagram.
3. Stem movement is indicated by the Position Indicator (a small pin riding in a channel as shown in (1) below).





Manual Override

NOTICE

RISK OF EQUIPMENT DAMAGE

- Avoid electrical noise interference.
- Do not install near large contactors, electrical machinery, or welding equipment.
- Only use manual override when power is off.

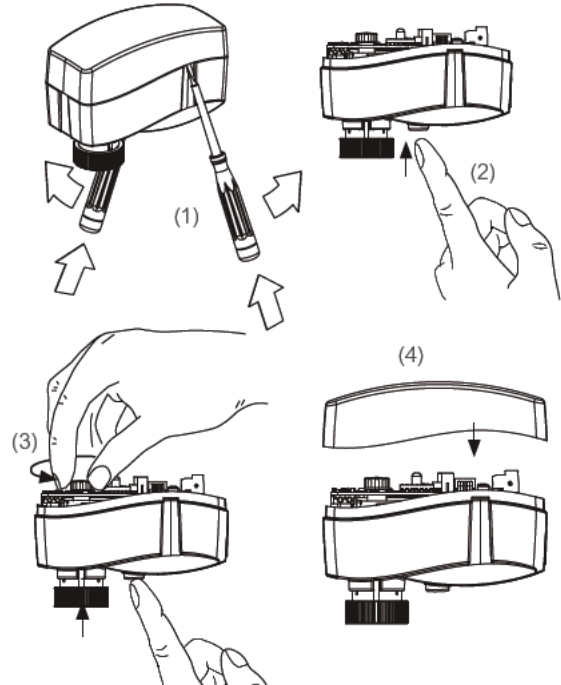
Failure to follow these instructions may result in damage to the gear train or other mechanical damage.

Do not dismount the actuator from the valve when it is in a stem down position. If dismounted in a stem down position, there is a risk the actuator will get stuck.

1. Remove cover (1) inserting flat screwdrivers heads into

2. Press and hold the button (2) on the bottom side of the actuator during manual override (3)
3. Replace cover (4) and install actuator on valve.

NOTE: A 'click' sound after energising the actuator indicates that the gear wheel has jumped into normal position.



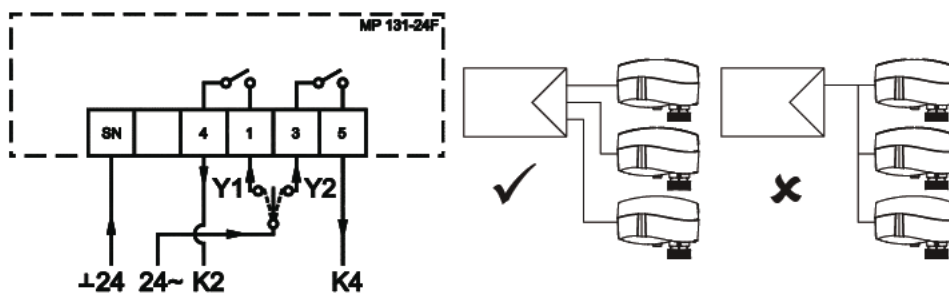
Wiring and Connections

NOTE: It is strongly recommended that the mechanical installation is completed before the electrical installation. Wire the actuator according to the wiring diagram. Each actuator is supplied with the connecting cable for the controller.



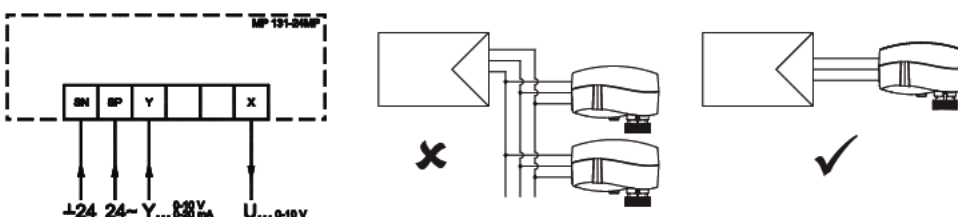
MP131 + VP229E-25BQS/ 32BQS

MP131-24F



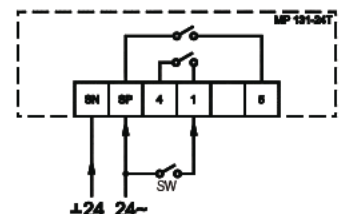
Y1 (1) retracts the actuator (opens the valve); Y2 (3) extends the actuator (closes the valve)

MP131-24MP



Retraction and Extension of the actuator is configured via Dip Switches on the 24MP. Refer to the installation document for details.

MP131-24T



Retraction and Extension of the actuator is configured via jumper setting position on the 24T PCB. Refer to the installation document for details.