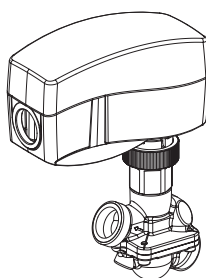
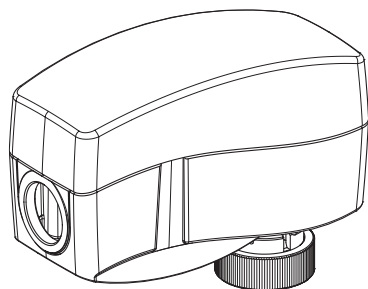


MP131-24MP



MP131-24MP +
VP228E, VP229E

Installation



WARNING

AC 24 V

To avoid injury and damage to persons and devices, it is absolutely necessary these instructions are carefully read and observed prior to assembly and commissioning.

- Do not remove the cover before the power supply is fully switched off.
- Switch off the power line before wiring the actuator.
- Do not touch anything on the PCB.
- Connect via safety isolating transformer.
- Prior to assembly and maintenance work on the controller, the system must be:
 - depressurized
 - cooled down
 - emptied
 - cleaned

Failure to comply may lead to equipment damage or personal injury.

Necessary assembly, start-up, and maintenance work must be performed only by qualified, trained personnel.

Wire the actuator according to the wiring diagram.

Please comply with the instructions of the system.

Green position indicator (1):

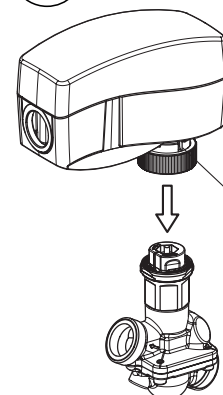
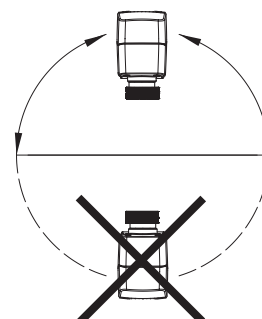
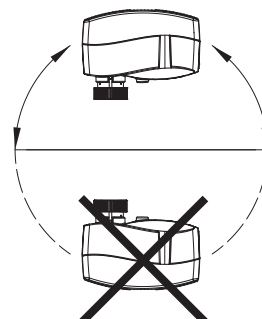
The valve is open in this position.

The indicator moves down as the valve closes.

Mounting

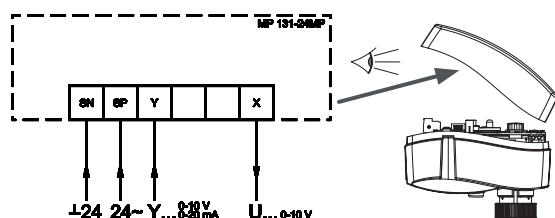
The actuator should be mounted with the valve stem in either horizontal position or pointing upwards. Check the valve's neck. The actuator should be in stem up position (1) (factory setting). Ensure that the actuator is mounted securely on the valve body.

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.



Green position
indicator

Wiring

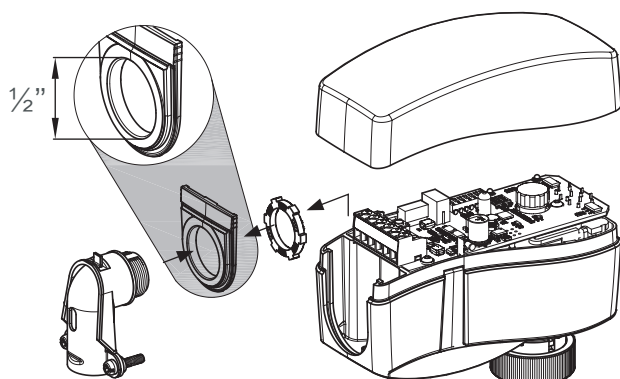


WARNING

AC 24 V

- Connect via safety transformer.
- Supplied with Safety Extra Low Voltage (SELV) from a Class 2 supply.

Failure to comply may lead to equipment damage or personal injury.

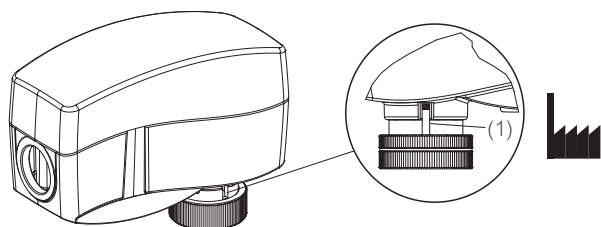


Auto sleep mode

- If actuator MP131-24MP is charged by 24 V supply voltage and if it is not installed on valve, it will stop in lower position and switch off all LED indicators after 5 minutes.
- It is mandatory to override the spindle of the actuator to upper position before it will be installed on valve (please refer to manual override drawings).
- Auto sleep mode switches back to learning mode by pressing RESET button or by cycling power supply.

Installation

- Check the valve neck. The actuator should be in stem up position (factory setting). Ensure that the actuator is mounted securely on the valve body
- Wire the actuator according to the wiring diagram.
- The direction of stem movement can be observed on the position indicator (1).



DIP Switch Settings

DIP switches (3)

Factory settings: ALL switches are in OFF position except DIP SW1.

NOTE: All combinations of DIP switches are allowed. All functions that are selected are added consecutively.

SW 1 : 0/2

Input signal range selector

If set to OFF position, the input signal is in the range from 2-10 V (voltage input) or from 4-20 mA (current input).

If set to ON position, the input signal is in the range from 0-10 V (voltage input) or from 0-20 mA (current input).

SW 2 : D/I

Direct or inverse acting selector

If set to OFF position, the actuator is direct acting (stem lowers as voltage increases).

If the actuator is set to ON position, the actuator is inverse acting (stem raises as voltage increases).

SW 3 : ---/Seq

Normal or sequential mode selector:

If set to OFF position, the actuator is working in range 0(2)-10 V or 0(4)-20 mA.

If set to ON position, the actuator is working in sequential range; 0(2)-5(6) V or 0(4)-10(12) mA or 5(6)-10 V or 10(12)-20 mA.

SW 4: 0-5 V/5-10 V

Input signal range in sequential mode:

If set to OFF position, the actuator is working in sequential range 0(2)-5(6) V or 0(4)-10(12) mA.

If set to ON position, the actuator is working in sequential range; 5(6)-10 V or 10(12)-20 mA.

SW 5: LIN/LOG

Linear or equal percentage flow through valve selector

If set to ON position, the flow through the valve is equal percentage-wise equals the control signal.

If set to OFF position, the flow through the valve is linear in accordance to the control signal.

SW 6: ---/ASTK

Anti-blocking function

Exercises the valve to avoid blocking in periods when the heating/cooling is off.

If set to ON position (ASTK), the valve motion is switched on. The actuator opens and closes the valve every 7 days.

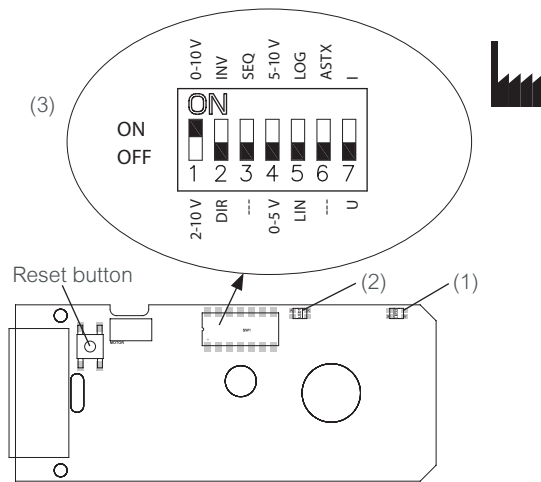
If set to OFF position (---), the function is disabled.

SW 7: U/I

Input signal type selector

If set to OFF position, voltage input is selected. If set to ON position, current input is selected.

REMARK: When the manual override has been used, the output signal (X) is not correct until the actuator reaches its end position.



Function Test

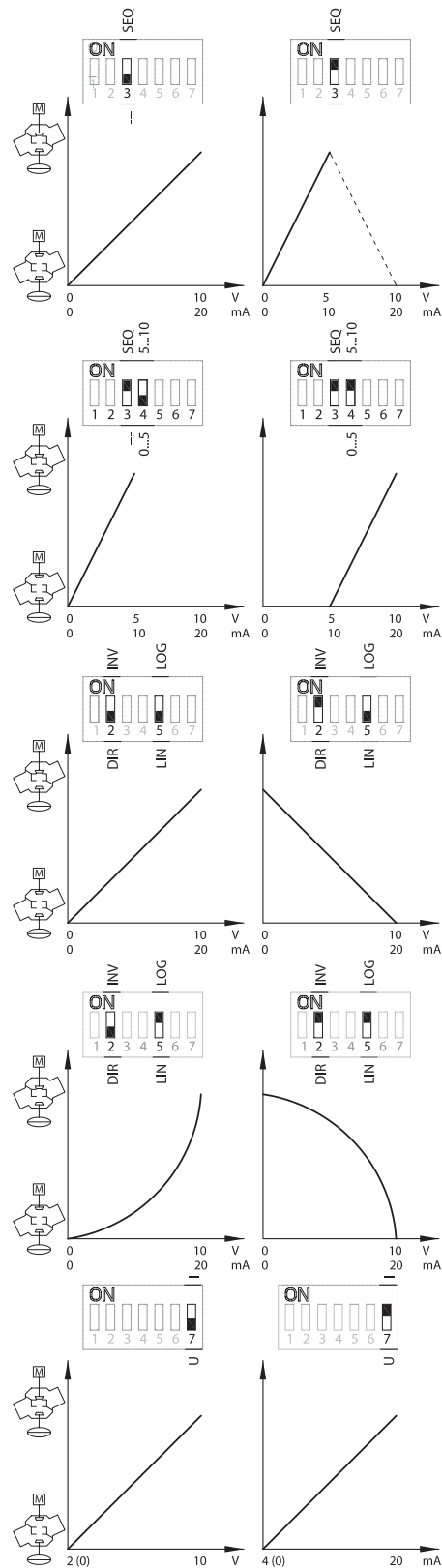
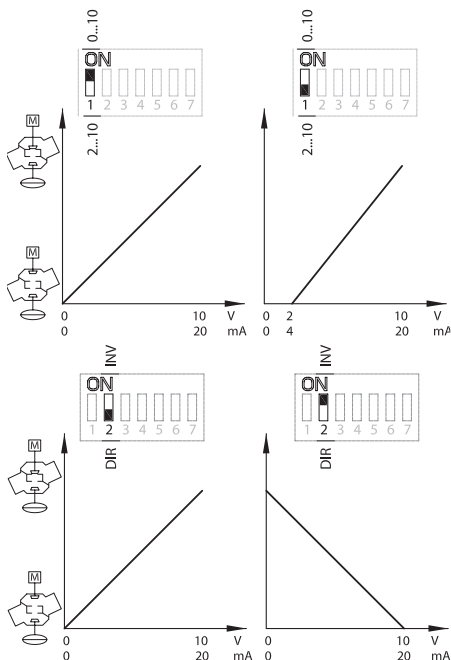
The light emitting diodes (LEDs) (1) (green - direction indicator), (2) (red - reset and normal mode indicator) indicate whether the actuator is in operation, the operating status, and potential failures.

Red LED (2):

- No light - no operation or no power supply
- Constant light - normal operation
- Flashing light (1 Hz) - self-adjusting mode
- Flashing light (~ 3 Hz):
 - power supply too low
 - initial self-adjusting time too short due to too short valve strokes
 - failure during self calibration

Green LED (1):

- Spindle extracts (green led diode blinking once per sec.)
- Spindle retracting (green LED on)
- Actuator reached set-point acc. to Y signal (LED off).



Manual Override

(for service purposes only)



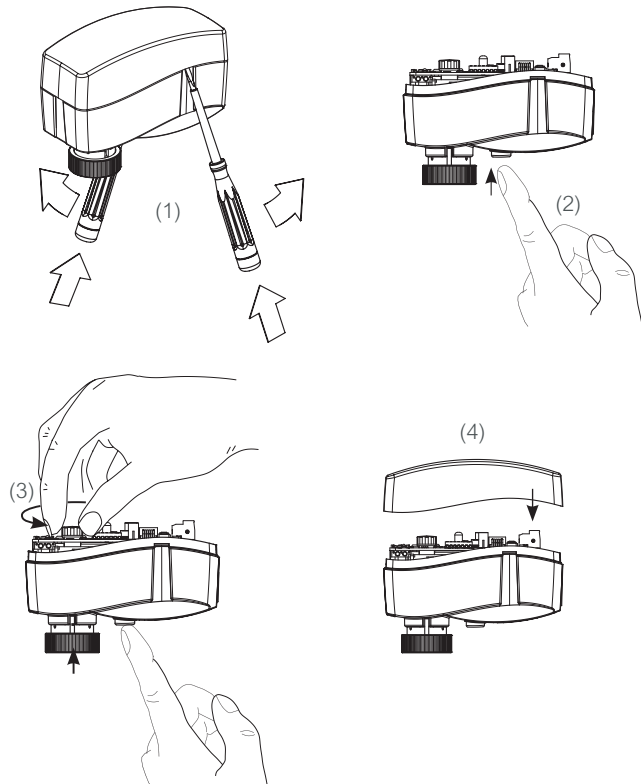
WARNING

Risk of Equipment Damage or Personal Injury

- Do not manually operate the drive if power is connected.

Failure to comply may lead to equipment damage or personal injury.

- Remove cover (1)
- Press and hold the button (on the bottom side of the actuator) (2) during manual override (3)



- Replace cover (4)
- Install actuator on valve (5)

Note: A 'click' sound is indicating, that the gear wheel has jumped into normal position.

Disposal Instruction



This product should be dismantled and its components sorted if possible, in various groups before recycling or disposal. Always follow the local disposal regulations.