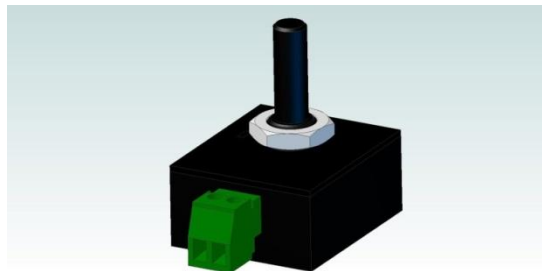




CP-02 current potentiometer 4-20mA

CP-02 current potentiometer is user-friendly device which allows adjusting current from 4 to 20 mA.



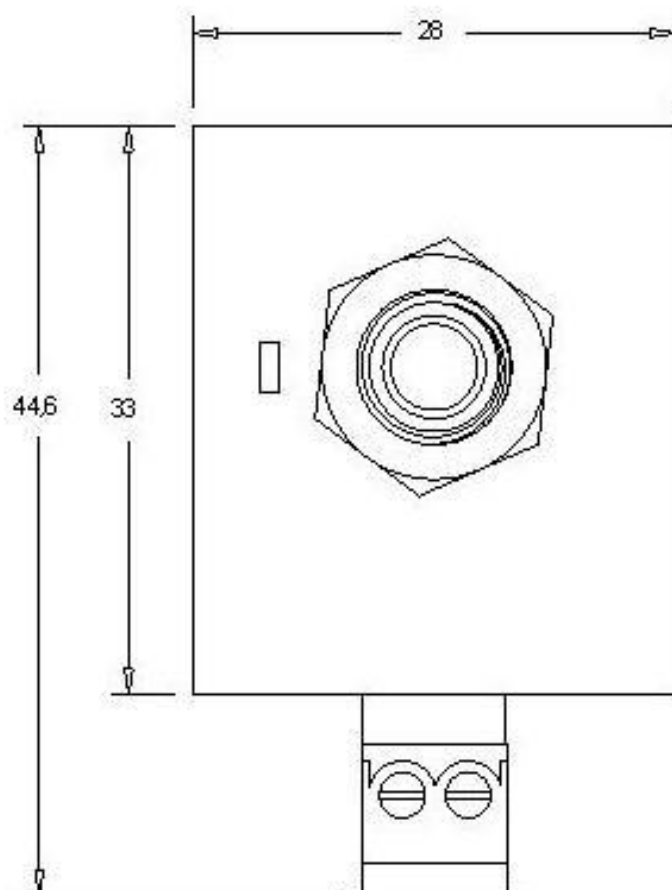
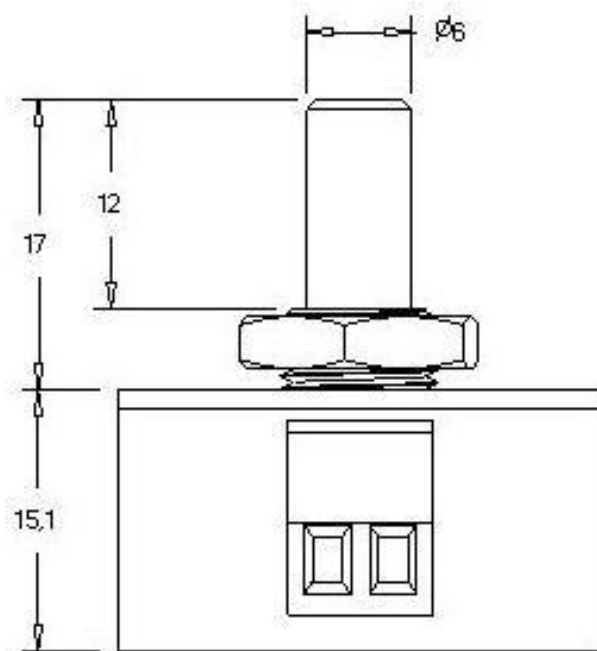
Drawing 1. CP-02

Most important properties:

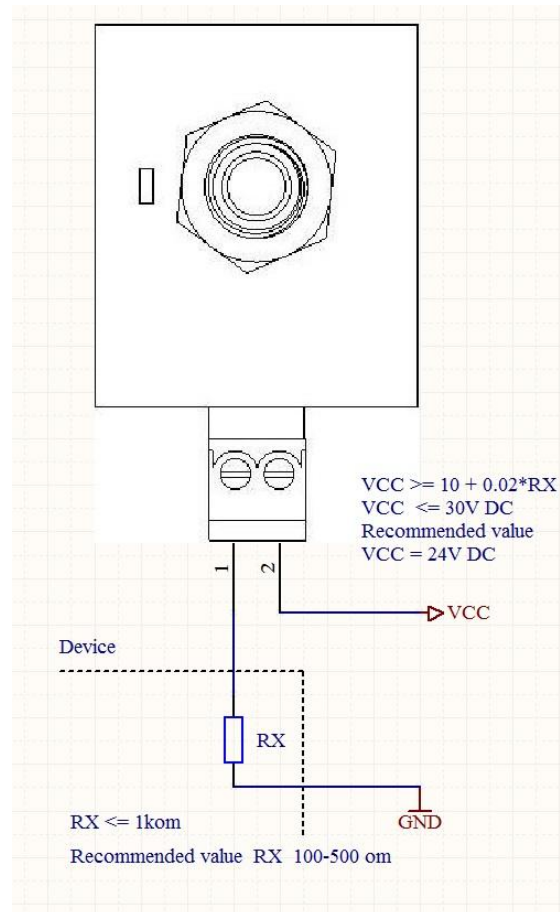
- the device is small, which makes it easy to mount
- connector which enables easy reconnecting
- connecting cables to the device with two screws
- power supplied from current loop
- high interferences resistance
- high temperature stability
- short-circuit proof
- it can be connected with long cable
- correct work no matter how wire are connected
- works with devices with high entrance resistance (up to 1 k Ω)
- can be connected in series with multiple devices
- wide variety of applications
- high durability

Technical data:

Parameter	Value	Notes
Allowed voltage	10V-30V DC	Recommended: 24V DC
Current control range	4-20 mA	
Load resistance	0-1k Ω	Recommended 100-500 Ω
Mounting hole	\varnothing 9 mm	
Axis height	17 mm	
Axis diameter	Ver. A – 6,3 mm Ver. B – 6 mm	
Angle of rotation	270°	
Protection level	IP40	IP67 on request
Dimensions	28x33x15mm	



Rys. 2 Dimensions



Drawing 3. Typical circuit diagram

Examples of applications:

1. Controlling of an inverter – frequency adjusting

CP-02 is perfect as a controller of frequency and other parameters of inverters. It's better than plain potentiometer, especially when there is significant distance between an inverter and control panel. Additional advantage of CP-02 is that two cable conductors are sufficient and in most cases, cables don't require shielding.

2. Presetting parameters

In application with simple driver unit based on PLC, regulators, relays it's often necessary to change process parameters. Using HMI panels is often too expensive and uncomfortable.

CP-02 is solution to these problems. Connecting it with analogue input of PLC allows changing its control's parameters.

Advantages of this application:

- easy setting
- high environmental conditions resistance
- low costs

3. Diagnostic and service

CP-02 current potentiometer is perfect when it comes to diagnosing devices and driver units which involve sensors and have 4-20 mA current outputs.

There is often need to check driver unit or regulator in it's functioning conditions. It is possible to switch sensor or converter with CP-02 and simulate it's behaviour. It helps to find a defect quickly. This application also allows checking of drivers', regulators' and relays' outputs. CP-02 helps checking wheather output is working and whether reaction for changing of signal is the one that was expected.

4. Launching and testing of driver units

CP-02 does grat job when used to lunch and test driver units and regulators. It allows quick testing of units outside target machine.

With CP-02 conditions and object's behaviour can be simulated. It also enables chcecking of driver unit. All those functions allows quick finding of mistakes and as a resoult saving time.

5. CP-02 as position sensor

The fact that adjusting of current is performed by changing angle of rotation of potentiometer's axis, allows using CP-02 instead of expensive absolute position sensors. It can controll position of proportional valves, butterfly valves, gates, windows, arms etc. CP-02 allows easy translation from rotary movement to linear movement and by that, controlling parts which move linearly.

When used with float it can be used to measuring of fluid levels. When mounted in pendulum axis it can measure acceleration.

Those are only examples of possible application of CP-02 current potentiometer.

