

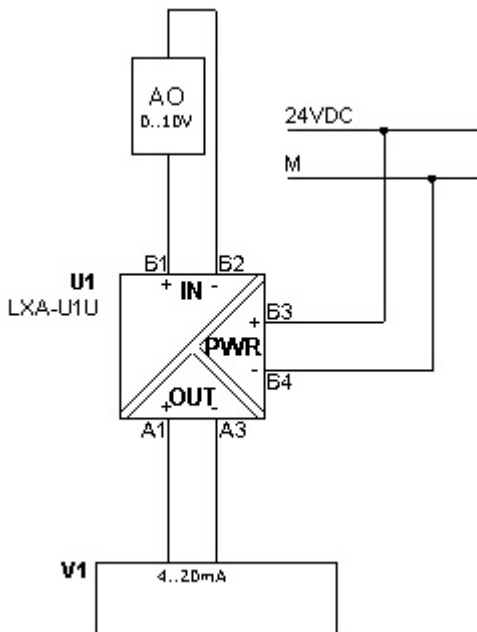
Separation of analog signals

The essence of the use of signal isolators is galvanic separations of two systems: an electronic device (eg. PLC or IPC) from the device often located in the area and therefore exposed to the harmful influence of other factors: people, lightnings etc.

Additionally, in the case of analog signal, there may be carried out conversion from one standard to another one.

OBJECT:

Protection of the PLC's analog output and conversion output signal of 0-10V to 4-20mA for inverter driving.



MATERIALS:

The necessary elements for the implementation of the system:

- U1: universal analog isolator LXA-U1U,
- V1: inverter,
- 24V DC power supply.

REALIZATION:

1. Connect the circuit shown in the scheme.
2. Set the switches on the front of LXA-U1U:

- Input: 0-10V,
- Output: 4-20mA.

ADVANTAGES:

- Protection of the controller's outputs from damage,
- In case of failure, replace the separator only, not the whole I/O card (in which there can be broken only one input/output)

- Conversion of the output signal to another one required by the user,
- Using universal isolators allows the user to independent change input and output signal range on his/her own.