pracujeme s energií

KIM16 – Electricity Consumption Encoder

The KIM16 encoder is designed for data collection from pulse outputs of electricity meters. It provides online transmission of aggregated input data (pulse counts) as well as instantaneous input states via the Modbus TCP protocol to one or two independent supervisory systems.

It is suitable for use wherever it is necessary to monitor energy consumption or supply based on data from meters with pulse outputs, such as energy management systems (data collection from electricity meters), gas consumption monitoring, and heat or water supply/consumption tracking. A typical application in OSC deliveries is the position of an input element for continuous electricity consumption measurement in control terminals for ancillary services (SVR for ČEPS) and power supply/consumption of various types of energy equipment (power plants, BESS, electrode boilers).

Technical Specifications:

- Two Ethernet 100/1000 Mbit communication interfaces operating in active-backup mode, sharing a single common IP address.
  - Available Ethernet interface protocols:
    - Modbus TCP (KIM16 acts as a slave / TCP server)
    - SSH
    - Integrated web server
  - Ambient air temperature measurement:
    - Internal sensor
    - Connector for an external sensor
- 16 galvanically isolated binary counting inputs
  - Independent voltage level configuration for each binary input via jumpers:
    - Passive 24 V – for connecting an active 0/24 V DC/AC signal
    - Passive 110 V – for connecting an active 0/110 V DC/AC signal
    - Active 24 V – for connecting a dry contact. Power supply for external contacts is provided by two independent internal 24 V DC sources, with one source shared per group of 8 inputs.
  - Independent configuration for each binary input via the internal web interface:
    - Normally open (NO) or normally closed (NC) contact
    - Active rising or falling edge
  - Optical status indication for each binary input
  - Binary input current: 6 mA
- Power supply: 24 V DC ±10%, max. 5 W, galvanically isolated from inputs and communication interfaces
- Operating temperature range: 0 °C to +60 °C
- Design: Plastic housing for DIN rail mounting (DIN EN 50022)
- Dimensions: 178 x 125.5 x 65 mm (W x H x D)
- Weight: 0.49 kg

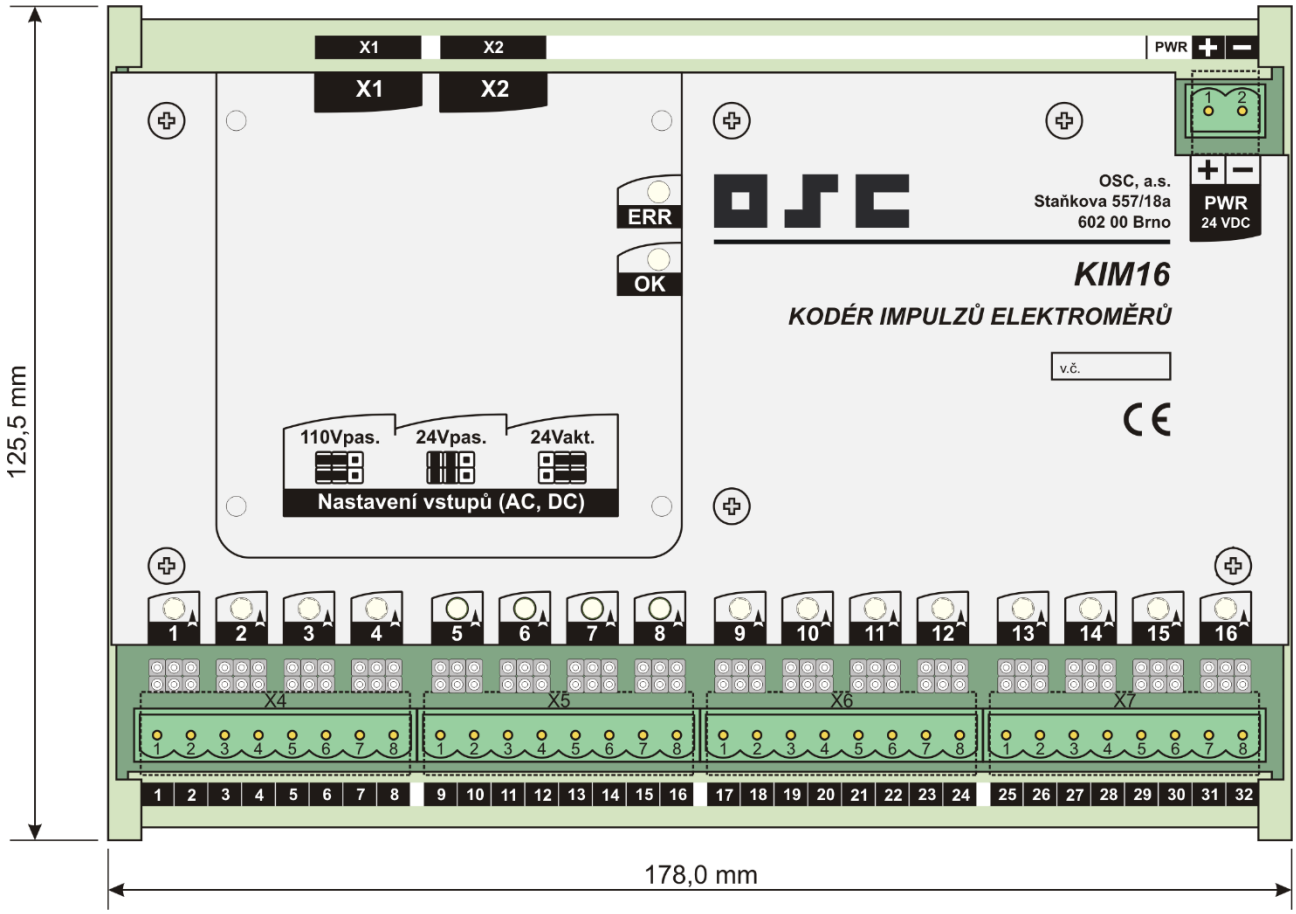


Figure 1: Front view of the KIM16 encoder

Pluggable screw terminal blocks are used to connect the power supply and pulse counting inputs.



Figure 2: View of the KIM16 encoder