

SUPERVISION RELAY

SR 100

USE



SR100 is intended for measuring and monitoring single-phase or three-phase electrical power network. It measures RMS network values and all significant deviations from the nominal values by means of fast sampling of voltage and current signals. There is an option in MiQen Settings Studio software to select also the measurements based only on positive sequence fundamental wave, which does not include harmonics measurements. This option can be found under MiQen Settings menu. With this option included all corresponding values are replaced by IEC 61400-21 Annex C measurements. This makes SR100 suitable for acquisition and validation of fast changes in the network. A built-in microcontroller calculates measured values (voltage, current, frequency, energy, power, power factor, THD phase angles, deviations) and sends these data over a reliable CANopen communication interface to the CAN master devices.

Application

SR100 supervision relay is used for measuring and monitoring of all single-phase or three-phase values and detecting predefined faults. With measuring ten different network deviations SR100 could be used as simple but efficient supervision relay. SR100 is delivered un-configured for customer configuration with user friendly setting software MiQEN. SR100 supports standard serial communication RS232/RS485 with speed up to 115200 baud and CANopen communication for speeds up to 1 Mbit/s which is perfect for integration into large systems.

Additional USB 2.0 interface can only be used for a fast set-up without the need for auxiliary power supply. This interface is provided with only BASIC insulation and can be used ONLY unconnected to power inputs.

FEATURES

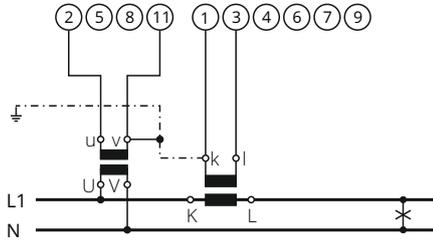
- Voltage and current auto range measurements up to 600V_{LNr} 12.5A
- Active, reactive, apparent power calculation based on IEC 61400-21 Annex C
- Power accuracy class 0.5
- 4 configurable energy counters (import, export, active, reactive)
- 10 supervision functions (under/over voltage, under/over frequency, asymmetry – voltage/phase imbalance, load overrun/underrun, LoM –phase shift/ROCOF)
- Up to 4 configurable relay outputs (normal, inverse, latched, pulsed)
- Simple USB setting without auxiliary power supply
- Reliable communication option over CANopen protocol and RS232/RS485
- Universal wide auxiliary power supply range 20 – 300 Vdc, 48 – 276 Vac
- Housing for DIN rail mounting
- User-friendly PC MiQen software

SUPERVISION RELAY

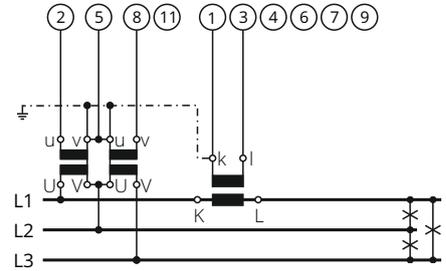
SR 100

CONNECTION DIAGRAMS

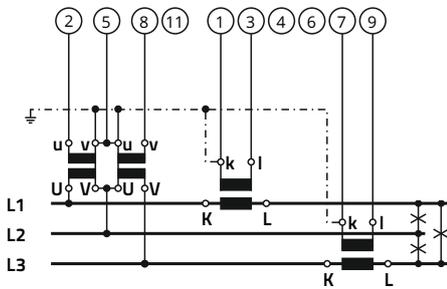
1b - single phase



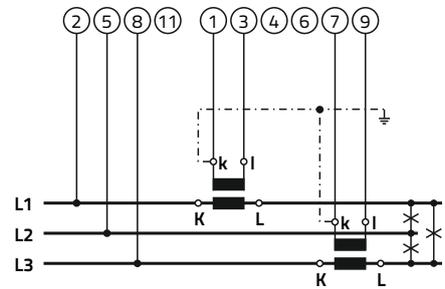
3b - three-phase, three wires, balanced load



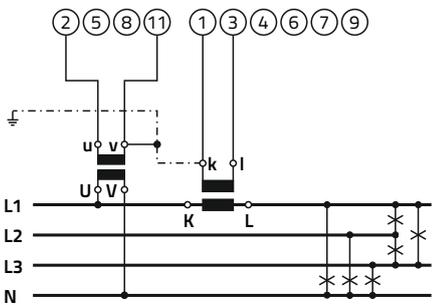
3u - three-phase, three wires, unbalanced load



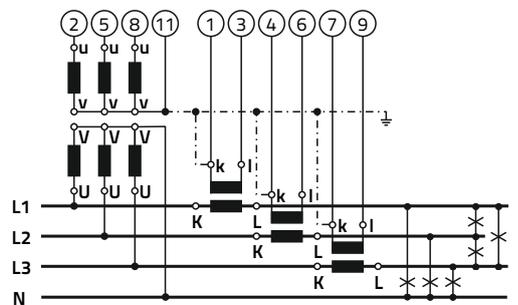
3u - three-phase, three wires, direct connection



4b - three-phase, four wires, balanced load



4u - three-phase, four wires, unbalanced load



DIMENSIONS (in mm)

