PURPOSE

Measuring transmitter PR-03-TK is designed for continuous measurement three-phase network with neutral parameters, transferring results via RS-485 interface (protocol Modbus RTU), and converting to two unified current outputs following parameters: currents and voltages on two phases, active, reactive, and total power, power factor.

- Measuring line voltages and currents on two phases.
- Programmatically setting up nominal current on measuring inputs.
- Active, reactive, total power and power factor calculation by three wattmeters method.
- Two galvanic isolated unified current outputs.
- Nominal current value programmatically setting up for each current output.
- RS-485 interface, Modbus RTU protocol.
- Setting up via control unit PN-01-TK or special software via RS-485 interface.

SPECIFICATIONS

- Nominal input values:
  - voltage, V ..... 100/√3
  - current, A 0.5; 1; 2.5; 5
- Measured values limits:
  - voltage lower bound, V ..... 80/√3
  - voltage upper bound, V ..... 120/√3
  - current lover bound, A ..... 0,01× I_{NOM}
  - current upper bound, A..... 1,2× I_{NOM}
- Unified current output ranges, mA:
  - -5..0..5;
  - 0..2.5..5;
  - 0..5;
  - 0..20;
  - 4..20.
- Measured value to digital signal transformation reduced error, %, up to..... ±0,5
- Measured value to current output transformation reduced error, %, up to ..... ±0,5
  - for 0..20, 4..20 mA ranges..... ±0,5
  - for 0..5, -5..0..5, 0..2.5..5 mA ranges ..... ±1,0
- Baud rate, kbps..... 9.6; 19.2; 38.4; 57.6; 115.2

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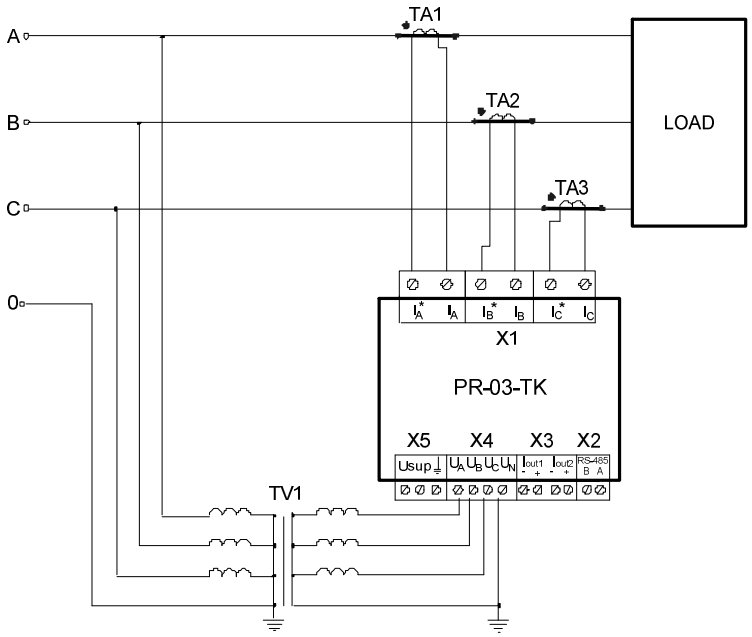
WIRING DIAGRAM



ADDITIONAL INFORMATION

- Operating temperature range ..... +5°C ..+50°C
- Dust and moisture protection..... IP41
- Power supply according to modification:
  – (70..300) VDC; (50..250) VAC, frequency (50±1) Hz;
  – (24±4) VDC.
- Current measuring circuit is galvanic isolated from voltage measuring circuit. Two current outputs are galvanic isolated to each other. RS-485 is galvanic isolated from all input circuits.
- Power consumption, VA, up to 4
- Overall dimensions (W×H×D), mm..... 125×60×200

ORDERING DESIGNATION

Measuring transmitter **PR-03-TK**-*XXX*-*Y*:
XXX – power supply:
"24V" – 24 VDC;
"220V" – (70..300) VDC; (50..250) VAC, 50 Hz.
Y – modification:
"U" – modification without current outputs;
no mark – modification with current outputs.

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