



Measuring multi-channel transmitter TK-6M is designed for sensors signals continuous measurement according to settings and converting measured values to digital signal for transferring to SCADA. Transmitter support temperature sensors (resistance temperature detectors – RTD, thermocouples - TC), instrument shunts and sensors with unified current output.

Transmitter has different modifications according to count and type of measuring inputs. Can be used in measurement and indication block BI-TK.

Setting up performs via RS-485 with special software

(is supplied with transmitter).

- 3- or 4-wire RTD connection.
- Cold junction temperature compensation:
 - external sensor connecting;
 - internal sensor;
 - receiving from external meter over RS-485 interface, Modbus RTU protocol.
- Input and output circuits are galvanic isolated.
- Measuring data and alarms archive.
- Archive max size – 32 Gb.
- Archive reading via USB-flash or RS-485 interface.
- LED indication of operating modes.
- 2 galvanic isolated RS-485 interfaces, Modbus RTU protocol.
- 4 NO relay.

SPECIFICATION

- Thermocouples K, L, S, B
- RTDs:
 - platinum (W100=1.3850 и W100=1.3910) Pt50, Pt100, Pt500
 - copper (W100=1.4260 и W100=1.4280)..... Cu50, Cu100
- Unified current input ranges, mA 0..5; 0..20; 4..20
- Instrumental shunt range, mV 0..90
- RTD temperature measuring absolute error, °C , up to
 $\pm(0,1 \cdot 10^{-2} \cdot (t+273)+0,5)$
- TC temperature measuring error, °C, up to:
 - K, L in -150..0°C range $\pm(0,25 \cdot 10^{-2} \cdot |t|+0,5^*)$
 - K, L in 0..800 (1300)°C range $\pm(0,1 \cdot 10^{-2} \cdot |t|+0,5^*)$
 - S 5,0*
 - B 7,0
- Unified current signal measuring reduced error, %, up to $\pm 0,25$
- Instrument shunts measuring reduced error, %, up to $\pm 0,5$
- Baud rate, kbps 9,6; 19,2; 38,4; 57,6; 115,2

* - error increasing on 2,0 °C when internal sensor of cold junction temperature is used.

ADDITIONAL INFRMATION

- Operating temperature range +5°C ..+50°C
- Dust and moisture protection..... IP41
- Power supply (24±2) VDC
- Power consumption, VA, up to 8
- Overall dimensions (W×H×D), mm 119×62×250

Measuring multi-channel transmitter **TK-6M-XY**, где

X – certain type inputs count;

Y – input type:

RT – input for RTD (3- or 4-wired), TC or shunt connecting, 4 contacts;

TC – input for TC or shunt connecting, 2 contacts;

C – input for unified current signal connecting, 2 contacts;

CZZ – input for unified current signal connecting with sensor supply, 4 contacts,

ZZ – sensor voltage supply (V).

Total contacts number for measuring circuits connecting – 32.

Example. Measuring multi-channel transmitter **TK-6M-14TC-1RT** – transmitter with 14 thermocouple or shunt inputs and 1 universal input (RTD (3- or 4-wired), TC or shunt connecting).

