MEASURING TRANSMITTER WITH UNIVERSAL INPUT TK-6

PURPOSE

Measuring transmitter TK-6 is designed for measurement and conversion of output sensors signals and results transferring via RS-485 interface (protocol Modbus RTU). Transmitter supports connecting of thermocouples, RTDs, bridge transducers, sensors with DC-current output.

Setting up performs via RS-485 with special software (is supplied with transmitter).

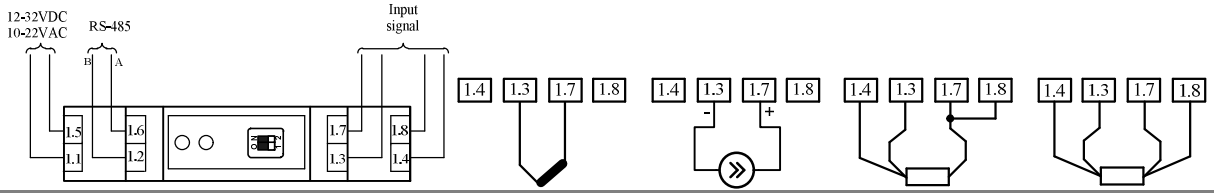
- Three-wire or four-wire RTD connection.
- Device conversion function – linear or square-root extracting.
- Cold junction temperature compensation (internal sensor).
- The possibility to receive the cold junction temperature from the external meter over RS-485 interface, Modbus protocol (RTU).
- LED indication of operating modes.
- The configurable analog input.
- RS-485 interface, Modbus RTU protocol.
- Continuous sensor fault detection.
- Installation on DIN rail, 35 mm.

SPECIFICATION

- Thermocouples ..... K, L, S, B
- RTDs:
  - platinum (W_{100}=1.3850 и W_{100}=1.3910) Pt50, Pt100, Pt500
  - copper (W_{100}=1.4260 и W_{100}=1.4280)..... Cu50, Cu100
- DC-current input signal range, mA ..... 0..5; 0..20; 4..20
- Temperature measurement error (for thermocouples), °C:
  - L, K in the range of -150..0°C .....$\pm(0.25\cdot10^{-2}\times|t|+0.5^*)$
  - L, K in the range of 0..800 (1300)°C .....$\pm(0.1\cdot10^{-2}\times|t|+0.5^*)$
  - S, B .....±5.0*
- Temperature measurement error (for RTDs), °C ..... $\pm(0.2\cdot10^{-2}\cdot(t+273)+0.1)$
- Reduced DC-current signal measurement error, %:
  - for input signal range 0..5 mA..... ±0.5
  - for input signal range 0..20, 4..20 mA..... ±0.25
- Baud rate, kbps..... 9,6; 19,2; 38,4

* - when internal sensor is used for cold junction temperature compensation it should be added 2.0 °C to error value

WIRING DIAGRAM



ADDITIONAL INFORMATION

- Operating temperature range ..... +5°C..+50°C
- Protection type (IP code)..... IP20
- Supply voltage .....(14..32)VDC / (14..22)VAC 50Hz
- Power consumption, up to 4
- Overall dimensions (W×H×D), mm..... 17,8×85×58

ORDERING DESIGNATION

Measuring transmitter **TK-6.**

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