

# SRT-147

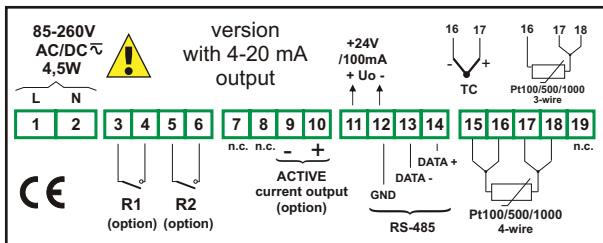
- ▣ meter with a large display 4 x 38 mm
- ▣ input: thermoresistance or thermocouple
- ▣ 0, 2 or 4 relay outputs (or OC)
- ▣ RS-485 / Modbus RTU
- ▣ option: active current output



The main advantage of the **SRT-147** meter is its large 38 mm high LED display. The unit is equipped with one input: thermoresistance (Pt100/500/1000) or thermocouple (K, S, J, T, N, R, B, E). Measurement is linearised by the polynomial characteristics. The device with thermocouple input has additional measurement range (-10 ÷ 90 mV) mainly for diagnostics of measurement circuits. Optionally **SRT-147** with two relay outputs can be equipped with active current output. The 24V DC/100 mA output is used to power the measuring transducers. The RS-485 enables data transmission in production process monitoring systems. 2 or 4 relay (or OC) outputs make it possible to adjust the level of the measured signal. These outputs can be controlled according to one or two threshold values.

- programmable hystereses and delays of control outputs and indication filtration,
- automatic recognition of 3 and 4-conductor connection (Pt inputs),
- automatic compensation of TC cold ends temperature,
- alarm diode and acoustic signal in case of sensor damage,
- 144 x 72 mm housing with readable display 4 x 38 mm.

## Exemplary pin assignment



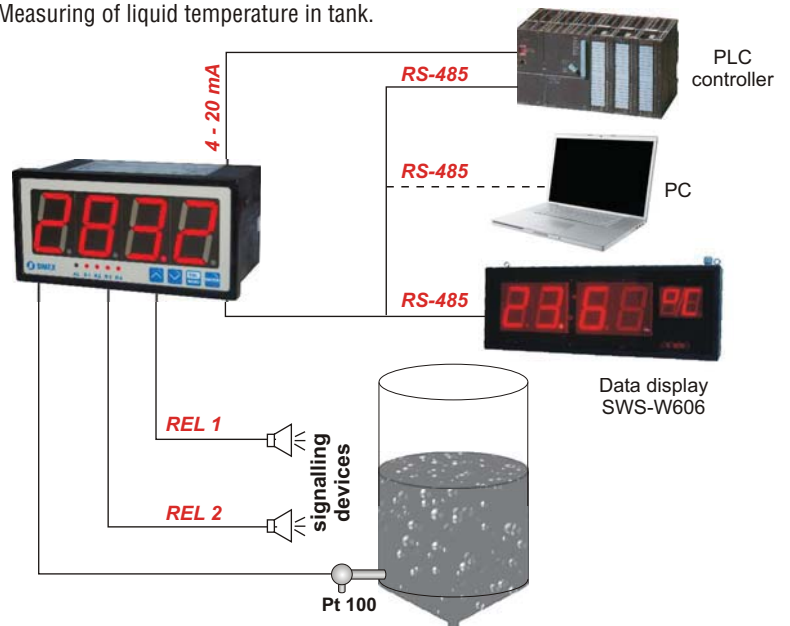
## Ordering

**SRT-147-1XXX-1-X-XX1**

- options:**
  - 00** : no options
  - 01** : IP 65 frame
- power supply:**
  - 3** : 24V AC/DC
  - 4** : 85V - 260V AC/DC
- type of outputs:**
  - 0** : no output
  - 1** : REL (for 2 and 4 outputs)
  - 2** : OC (for 2 and 4 outputs)
  - 3** : 2 x REL + current output
  - 4** : 2 x OC + current output
- number of outputs:**
  - 0**
  - 2**
  - 3**
- type of input:**
  - 3** : thermoresistance
  - A** : thermocouple

## Typical applications

1. Measuring of liquid temperature in tank.



## Technical data

- Power supply:** 19V ÷ 50V DC; 16V ÷ 35V AC or 85 ÷ 260V AC/DC, all separated
- Power consumption:** for 85 ÷ 260V AC/DC and 16V ÷ 35V AC power supply: max. 4,5 VA; 19V ÷ 50V DC power supply: max. 4,5 W
- Display:** LED, 4 x 38 mm high, red (green - on request)
- Input:**
  - thermoresistance: Pt100, Pt500, Pt1000 (automatic recognition of 3 and 4-conductor connection, resistance compensation of connecting conductors from 0 to 20 Ω at any conductor); measuring range: -100°C ÷ 600°C; resolution: 0,1°C
  - thermocouple: type K, S, J, T, N, R, B, E; measuring range: **K:** -200°C ÷ +1370°C; **S:** -50°C ÷ +1768°C; **J:** -210°C ÷ +1200°C; **T:** -200°C ÷ +400°C; **N:** -200°C ÷ +1300°C; **R:** -50°C ÷ +1768°C; **B:** +250°C ÷ +1820°C; **E:** -200°C ÷ +1000°C; resolution: 1°C, additional range -10 ÷ +90 mV
- Displayed values range:** -999 - 9999 ÷ decimal point
- Accuracy:** 0.1% @25°C
- Stability:** 50 ppm/°C
- Outputs:** 0, 2 or 4; relays 1A/250V AC (cosφ=1) or the OC 30mA/30VDC/100mW
- Transducer power supply output:** 24V DC ÷ 5%, -10% / max. 100 mA, stabilized, not insulated from measuring inputs
- Active current output:** operating range max. 0/4 - 24 mA, load resistance max. 700 Ω (option available with 2 relays, see ordering)
- Communication interface:** RS-485, 8N1 and 8N2, 1200 bit/s ÷ 115200 bit/s, Modbus RTU, not galvanically insulated from measuring inputs
- Operating temperature:** 0°C ÷ +50°C
- Storage temperature:** -10°C ÷ +70°C
- Protection class:** IP 65 (front), available additional frame IP 65 for panel cut-out sealing; IP 20 (case and connection clips)
- Case:** board
- Case material:** NORYL - GFN2S E1
- Case dimensions:** 144 x 72 x 100 mm
- Panel cut-out dimensions:** 138,5 x 67 mm
- Installation depth:** min. 102 mm
- Board thickness:** max. 5 mm