

PAC-94T

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



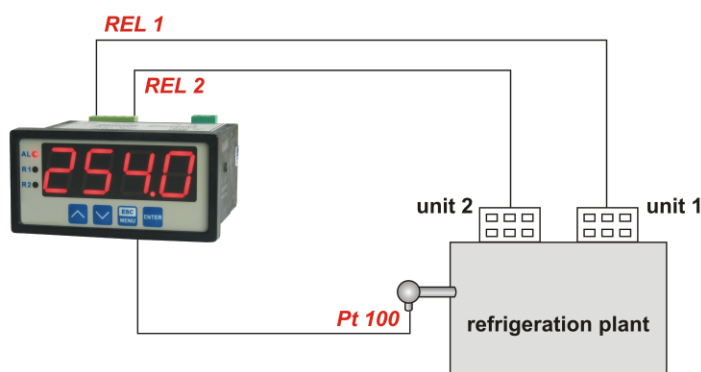
The PAC-94T temperature meter has one input: thermoresistance (Pt100/500/1000) or thermocouple (K, S, J, T, N, R, B, E). Measurement is linearised by the polynomial characteristics. The device with thermocouple input has additional measurement range (-10 ÷ 90 mV) mainly for diagnostics of measurement circuits. A 4-digits, 20-millimetre LED display enables seeing of measured values from a distance. 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. Every relay output can be controlled according to one or two threshold values.

- programmable hystereses and delays of control outputs,
- programmable indication filtration,
- automatic recognition of 3 and 4-conductor connection (Pt inputs),
- automatic compensation of TC cold ends temperature,
- signal peak value detection,
- alarm diode and acoustic signal in case of sensor damage.

Typical applications

1. Temperature regulation in refrigeration plants (in co-operation with Pt100 sensor) with operation of refrigerating units according to preset parameters.



Technical data

Power supply: 19... 50V DC; 16...35V AC or 85...260V AC/DC

Power consumption: for 85...260V AC/DC and 16...35V AC power supply: max. 4,5 VA; 19...50V DC power supply: max. 4,5 W

Display: LED, 4 x 20 mm high, red or green (depending on version)

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...1370°C;

S: -50...1768°C; J: -210...1200°C; T: -200...400°C;

N: -200...1300°C; R: -50...1768°C; B: +250...1820°C;

E: -200...1000°C; resolution: 1°C, additional range -10...90 mV

Accuracy (25°C): ± 0,1 % FSO

Tolerance band (0...50°C): max. 0,25 % FSO

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...20 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 isolated)

Operating temperature: 0...50°C

Storage temperature: -10...70°C

Protection class: IP 65 (front side when an additional frame is installed); IP 40 (front side); IP 20 (case and connection clips)

Case: board

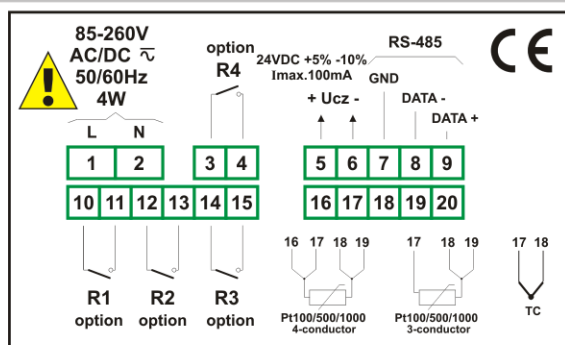
Case material: NORYL - GFN2S E1

Case dimensions: 96 x 48 x 100 mm

Panel cut-out dimensions: 90,5 x 43 mm

Board thickness: max. 5 mm

Exemplary pin assignment



version without 4-20 mA output

Ordering

PAC-94T-1XXX-1-X-XX5-N1

options:

00 : no options

01 : IP65

power supply:

3 : 24V AC/DC

4 : 85...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

type of input:

3 : thermoresistance

A : thermocouple

0

2

3

4