simex

SRT-457

- **meter in tight, wall mounting case**
- **57 mm LED display**
- **input: thermoresistance or thermocouple**
- **1 relay output (or OC)**
- **power supply output 24V DC**
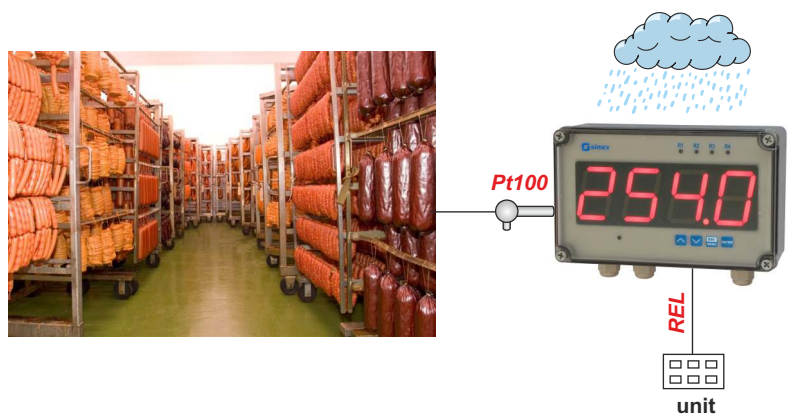- **RS-485 / Modbus RTU**

IP 67

IP 65

CE

The **SRT-457** digital 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. The meter is equipped with 4 LED diodes, indicating exceeding of particular thresholds (R1, R2, R3, R4). Relay (or OC) output makes it possible to control processes ON/OFF type. The device features a 4-button keyboard for programming basic settings, which for greater security is located under the front cover. In order to make setting changes without unsealing the casing, remote control can be included by means of an (as accessories) infrared remote control unit. The keyboard on this remote control unit is the same as the device's keyboard (this applies to the type IP 67 casing).

- signal peak value detection,
- display brightness adjustable in 8 steps,
- automatic recognition of 3 and 4-conductor connection (Pt inputs),
- automatic compensation of TC cold ends temperature,
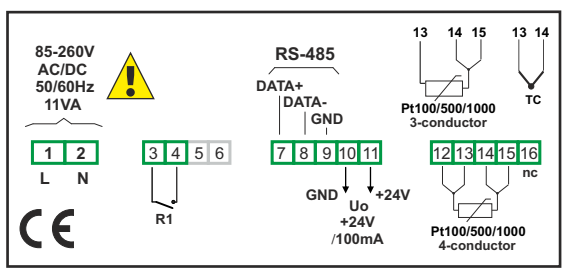- two types of case: IP 65 and IP 67.

Examplary pin assignment

```
85-260V                RS-485          13  14 15    13 14
AC/DC                  DATA+
50/60Hz   ⚠             DATA-                          TC
11VA                    GND        Pt100/500/1000
                                    3-conductor
  1   2    3  4  5  6   7  8  9 10 11   12 13 14 15 16
  L   N                                            nc
                        GND    +24V
  CE                         Uo
                             +24V
         R1                  /100mA   Pt100/500/1000
                                      4-conductor
```

Ordering

SRT-457-1X1X-1-X-XX1

options:
- **01** : IP 65 (standard)
- **09** : IP 67
- **0P** : IP 65 + operating temp. -20°C ÷ +50°C
- **0R** : IP 67 + operating temp. -20°C ÷ +50°C

power supply:
- **3** : 24V AC/DC
- **4** : 85V - 260V AC/DC

type of input:
- **3** : thermoresistance
- **A** : thermocouple

type of outputs:
- **1** : REL
- **2** : OC

Typical applications

1. Measuring of temperature in cold store in smoked sausages factory.

Pt100

REL

unit

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. 11 VA; 19V ÷ 50V DC power supply: max. 8 W
Display: LED, red, 4 x 57 mm, with 8-step adjustment of brighness
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
Accuracy: 0.1% @25°C
Stability: 50 ppm/°C
Output: 1 relay 1A/250V AC (cosφ=1) or OC 30mA/30VDC/100 mW
Transducer power supply output: 24V DC +5%, -10% / max. 100 mA, stabilized, not insulated from measuring inputs
Communication interface: RS-485, 8N1 and 8N2, 1200 bit/s ÷ 115200 bit/s, Modbus RTU (not galvanically insulated)
Operating temperature: 0°C ÷ +50°C (standard), -20°C ÷ +50°C (option)
Storage temperature: -10°C ÷ +70°C (standard), -20°C ÷ +70°C (with option **0P** or **0R**)
Protection class: IP 65 (standard); IP 67 (option)
Case: wall-mounted (depends on IP version)
Case material: ABS + glass fibre
Case dimensions: IP 65 type case: 215 x 185 x 118,2 mm
IP 67 type case: 230 x 140 x 96,5 mm

Accessories

IR remote controller
SIR-15