



## SRT-77

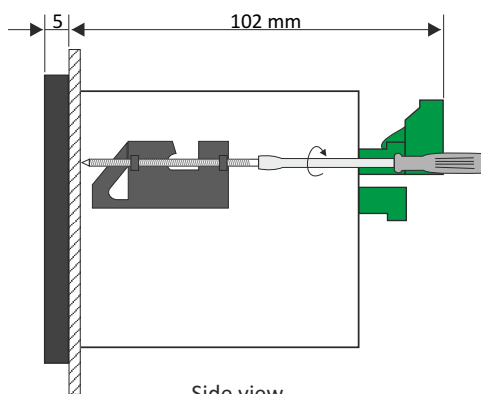
- ❑ process meter with 2 displays
- ❑ inputs: thermoresistance or thermocouple
- ❑ 0, 1 or 2 relay (or OC) outputs
- ❑ power supply output: 24V DC
- ❑ RS-485 / Modbus RTU
- ❑ automatic recognition of 3 and 4-conductor connection (RTD inputs)
- ❑ automatic compensation of TC cold ends temperature
- ❑ free configuration software S-Config

The **SRT-77** 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. The main advantage of regulator are two rows of display. The first one presents measuring value, second one - programmed values: max and min. 1 or 2 relay (or OC) outputs make it possible to control heating / cooling processes. The RS-485 enables data transmission in production process monitoring systems. The REL / OC control outputs can adjust the level of measured signal and are controlled according to one or two threshold values. The meter can be configured with the local keyboard or free S-Config software via the RS-485 communication port.

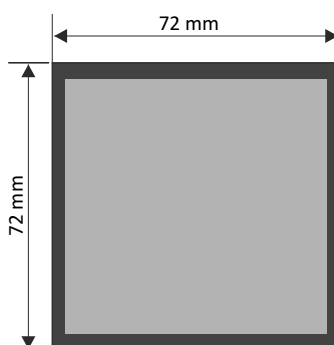
### TECHNICAL DATA

|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power supply<br>Power consumption | 19V ÷ 50V DC; 16V ÷ 35V AC or 85 ÷ 260V AC/DC, all separated;<br>for 85 ÷ 260V AC/DC and 16V ÷ 35V AC power supply: max. 4,5 VA; for 19V ÷ 50V DC power supply: max. 4,5 W                                                                                                                                                                                                                                                                                                                                                              |
| Display                           | LED, double: 4 x 13 mm (red) and 4 x 10 mm (green), brightness adjustable in 8 steps                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Displayed values                  | -999 ÷ 9999 + decimal point                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Input                             | <u>thermoresistance</u> : 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<br><u>thermocouple</u> : 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 ± one digit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Stability                         | 50 ppm/°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Outputs (option)                  | 0, 1 or 2 x REL $I_{max}=1A$ , $U_{max}=30VDC/250VAC$ ( $\cos\phi=1$ ) or OC $I_{max}=30mA$ , $U_{max}=30VDC$ , $P_{max}=100mW$                                                                                                                                                                                                                                                                                                                                                                                                         |
| Power supply output               | 24V DC +5%, -10% / max. 100 mA, stabilized                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Communication interface           | RS-485, 8N1 and 8N2, 1200 bit/s ÷ 115200 bit/s, Modbus RTU (not galvanically isolated)                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Operating temp.                   | 0°C ÷ +50°C (standard), -20°C ÷ +50°C (option)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Storage temp.                     | -10°C ÷ +70°C (standard), -20°C ÷ +70°C (depending on option)                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Protection class                  | IP 65 (front), available additional frame IP 65 for panel cut-out sealing; IP 20 (case and connection clips)                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Case                              | panel mounting; material: NORYL - GFN2S E1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Dimensions                        | case (WxHxD): 72 x 72 x 100 mm<br>panel cut-out dimensions: 66,5 x 66,5 mm<br>installation depth: min. 102 mm<br>board thickness: standard 7 mm or other depending on used board thickness brackets (see Accessories)                                                                                                                                                                                                                                                                                                                   |
| Weight                            | 217 g max.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

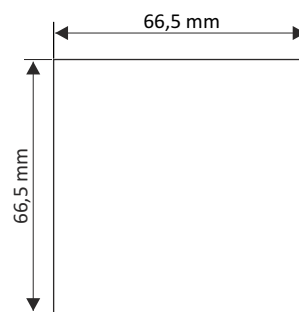
## DIMENSIONS



Side view

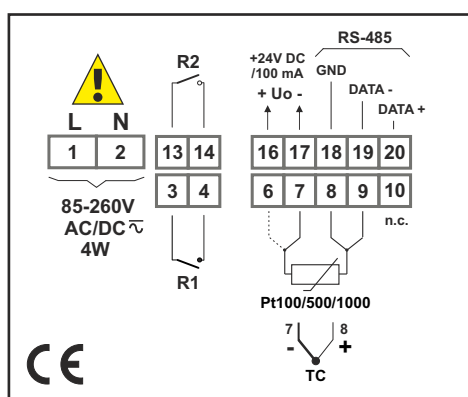


Case dimensions

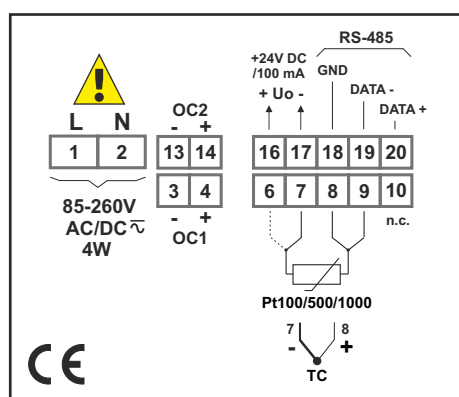


Panel cut-out dimensions

## EXAMPLARY PIN ASSIGNMENTS



version with 2 x REL



version with 2 x OC

## ORDERING

**SRT-77-1XXX-1-X-XX1**

### type of input:

3 : thermoresistance  
A : thermocouple

### number of outputs:

0  
1  
2

### type of outputs:

0 : no output  
1 : REL  
2 : OC

### options:

00 : no options  
01 : IP 65 frame  
08 : operating temp. -20°C ÷ +50°C  
0P : IP 65 frame + operating temp. -20°C ÷ +50°C

### power supply:

3 : 24V AC/DC  
4 : 85V - 260V AC/DC

## SECURITY DOOR WITH LOCK



### STD-77

transparent IP 54 door with lock for 72 x 72 mm case

## BOARD THICKNESS BRACKETS / ADAPTORS



### SPH-07

1 ÷ 7 mm board thickness brackets (2 pcs)  
standard included with device



### SPH-05

1 ÷ 5 mm board thickness brackets (2 pcs)



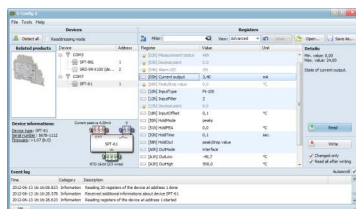
### SPH-45

1 ÷ 45 mm board thickness brackets (2 pcs)



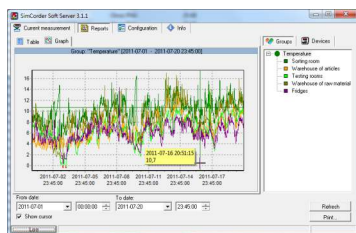
SRH-77/147: TS-35 DIN rail brackets for 96 x 48 mm case

## SOFTWARE



**S-Config 2** is used for the simultaneous detection of devices in multiple Modbus RTU networks and allows user to change the configuration of most of them. For each detected device a list of its registers, which the user can modify, is displayed and also additional informations about device parameters (type, address in the network, etc.).

**S-Config** software can be downloaded from SIMEX website at [www.simex.pl](http://www.simex.pl)



**SimCorder Soft** is a visualisation application created to facilitate work with advanced networks of the SIMEX devices, for acquisition, visualisation, reporting, archiving, exporting and printing of measurement data from all network devices. You can download measurements from the devices automatically or on demand. There is a possibility of immediate notification about emergency states via SMS or e-mail, which will often allow to quickly resolve an arising problem while avoiding long and expensive stoppages. You can view the measurement data, emergency states and configuration via the internet at every time.

## CONVERTERS



The **SRS-U4** module is designed to connect a USB host to slave devices equipped with RS-485 interface. The PC with special software can be used as a host. The **SRS-U4** unit guarantees full galvanic isolation between USB and RS-485 circuits. The converter can work with any devices equipped with RS-485 interface and contains integrated circuit which supports USB 1.1 and USB 2.0 standards. The main purpose is connection of PC host computer with industrial data acquisition and visualisation systems based on RS-485 interface.

The **SRS-U4** can be also manufactured with DIN mounting adaptor.