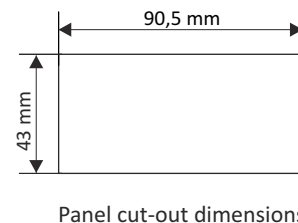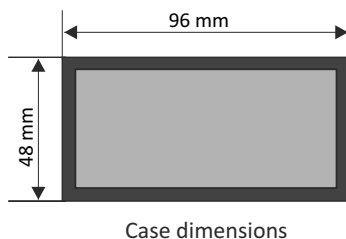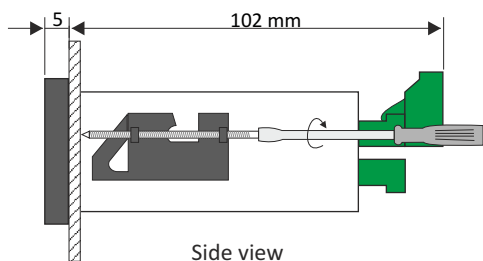# STN-94

- temperature meter **with double display**
- **input: Pt100, Pt500, Pt1000**
- **1 REL output**
- **threshold value setting**
- **RS-485 / Modbus RTU**
- **automatic recognition of 3 and 4-conductor connection**
- **signal peak value detection**
- **free configuration software S-Config**

The **STN-94** meter is designed for temperature measurements and is particularly suitable in applications which require quick access to the threshold value with a possibility of its instant modification during measurements. 3 [^] keys enable quick changing of any set value digit, which significantly reduces the time necessary to input a new parameter value. The device is equipped with one resistance-type Pt100/500/1000 input. The inputs feature with fully linearized characteristics. The 24V DC / 100 mA output is designed to supply measuring transducers, and the RS-485 port enables data transmission in production process monitoring systems. The REL / OC control output can adjust the level of measured signal and are controlled according to threshold value. The meter can be configured with the local keyboard or free S-Config software via the RS-485 communication port.
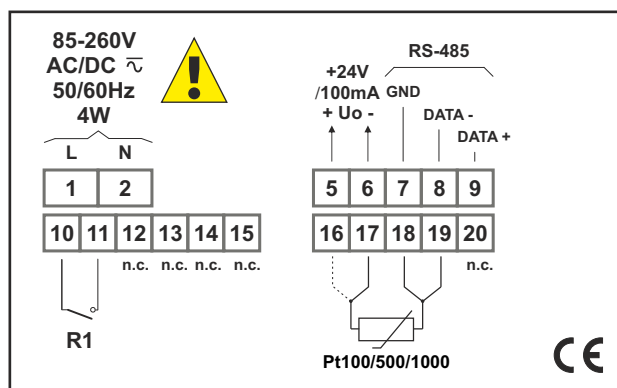
TECHNICAL DATA

Power supply **Power consumption**	19V ÷ 50V DC; 16V ÷ 35V AC or 85 ÷ 260V AC/DC, all separated 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	real values: LED, red, 3 digits, 13 mm high, brightness adjustable in 8 steps set values: LED, green, 3 digits, 13 mm high, brightness adjustable in 8 steps
Measuring range	-99°C ÷ 600°C
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)
Resolution	0,1°C
Accuracy	0,1% @25°C ± one digit
Stability	50 ppm/°C
Outputs (option)	1 x REL I_{max}=1A, U_{max}=30VDC/250VAC (cosø=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): 96 x 48 x 100 mm panel cut-out dimensions: 90,5 x 43 mm installation depth: min. 102 mm board thickness: standard 7 mm or other depending on used board thickness brackets (see Accessories)
Weight	215 g max.

SIMEX Ltd., Wielopole 11, 80-556 Gdańsk, Poland, tel. (+48) 58 762-07-77, fax 58 762-07-70, www.simex.pl

STN-94.1

DIMENSIONS

Side view

Case dimensions

Panel cut-out dimensions

EXAMPLARY PIN ASSIGNMENTS

85-260V AC/DC 50/60Hz 4W

RS-485

+24V /100mA GND
+ Uo -   DATA -
              DATA +

L	N
1	2

5	6	7	8	9

10	11	12	13	14	15
		n.c.	n.c.	n.c.	n.c.

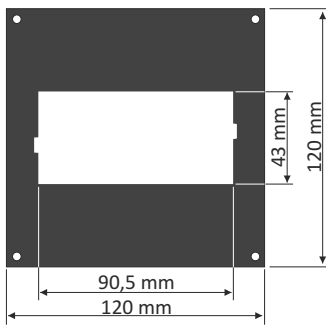| 16	17	18	19	20
				n.c.

R1

Pt100/500/1000
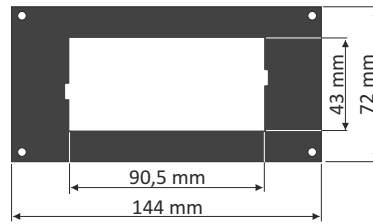
CE

ORDERING

STN-94-1311-1-X-XX1

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

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STN-94.2

MOUNTING PLATES

SMP-99/94
to mount 96 x 48 mm
size unit in place
of 96 x 96 mm cut-out

43 mm
120 mm
90,5 mm
120 mm

SMP-147/94
to mount 96 x 48 mm
size unit in place
of 144 x 72 mm cut-out

43 mm
72 mm
90,5 mm
144 mm

BOARD THICKNESS BRACKETS / ADAPTORS

SPH-07
1 ÷ 7 mm board thickness
brackets (2 pcs)
standard included with device
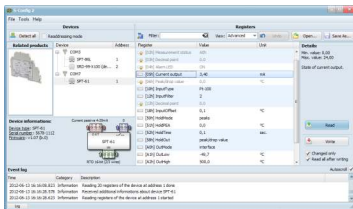
SPH-45
1 ÷ 45 mm board thickness
brackets (2 pcs)

SRH-94
brackets for mounting devices
on DIN 35/7.5 or 15 rail (2 pcs)

SPH-05
1 ÷ 5 mm board thickness
brackets (2 pcs)

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**
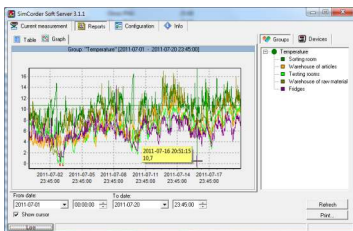
SimCorder Soft is a visualisation application created to facilitate work with advanced networks of the SIMEX devices, for acquisition, visualisation, reporting, archiving, exporting and printing of measurement data from all network devices. You can download measurements from the devices automatically 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.

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STN-94.3