SWT-99X

- multichannel meter with graphic LCD display
- up to 8 TC/RTD inputs
- 2 electronic relay outputs (optoMOS)
- programmable measuring range and indication filtration
- white or amber colour LCD
- RS-485, USB-PC / Modbus RTU
- free configuration S-Toolkit software

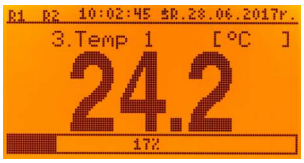
The **SWT-99X** meter is intended for measuring and presentation of current values from max. 8 measuring channels in TC (K, S, J, T, N, R, B, E) and RTD (Pt100/500/1000) standard. The LCD graphical display allows for visualization of the values from all 8 channels simultaneously. A significant advantage is possibility of viewing the trends in each measuring channel as the graphs from the last 12 seconds to 8 hours. The **SWT-99X** is equipped with 2 electronic relay outputs that can be used to control external devices. There are icons on the screen signalling the status of the outputs. The meter can be configured with the local keyboard or free S-Toolkit software via the RS-485 or USB-PC communication port.

TECHNICAL DATA

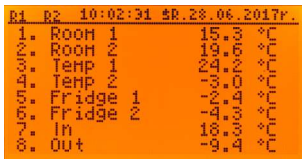
Power supply **Power consumption**	19V ÷ 50V DC; 16V ÷ 35V AC or 85 ÷ 260V AC/DC, all separated typical 7 VA; max. 12 VA
Display	graphic LCD, 128 x 64 points, with backlight (amber or white)
Input	2, 4 or 8 x TC (K, S, J, T, N, R, B, E) / RTD (Pt100, Pt500, Pt1000) inputs, automatic connection recognition (2 or 3-wires), measurement wires resistance max. 20 Ω (every wire)
Measurement range	RTD: -100°C ÷ +600°C TC: -200°C ÷ +1370°C (K); -50°C ÷ +1768°C (S); -210°C ÷ +1200°C (J); -200°C ÷ +400°C (T); -200°C ÷ +1300°C (N); -50°C ÷ +1768°C (R); +250°C ÷ +1820°C (B); -200°C ÷ +1000°C (E); 0 ÷ 60 mV, 0 ÷ 75 mV, 0 ÷ 100 mV or 0 ÷ 150 mV
Accuracy	0.1% @25°C (inputs: milivoltage, RTD, TC K, J, E); 0.2% @ 25°C (thermocouple N), 0.5% @25°C (TC S, T, R, B)
Stability	50 ppm/°C
Sampling rate	depends on the number and type of inputs
Binary outputs	2 electronic relays, NO type (ER1, ER2) with max. load 24V AC (35V DC) / 200 mA, overload protection
Communication interface	RS-485, 8N1 and 8N2, 1200 bit/s ÷ 115200 bit/s, Modbus RTU (not galvanically isolated)
Operating temp.	0°C ÷ +50°C
Storage temp.	-10°C ÷ +70°C
Protection class	IP 65 (front); available options: additional IP 65 frame for panel cut-out sealing and STD-99 transparent door (see: Accessories); IP 20 (case and connection clips)
Case	panel mounting; material: NORYL - GFN2S E1
Dimensions	case (WxHxD): 96 x 96 x 100 mm panel cut-out dimensions: 90,5 x 90,5 mm installation depth: min. 102 mm board thickness: standard 7 mm or other depending on used board thickness brackets (see: Accessories)
Weight	411 g max.

DATA PRESENTATION

The individual text description of each recorded channels is possible. The multi-language menu assisted with full text descriptions makes the unit configuration process fast and easy.



Real time measurement value
18 mm high digits



Channels list results presentation mode - parameters set as "values"

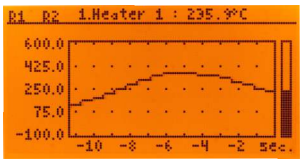
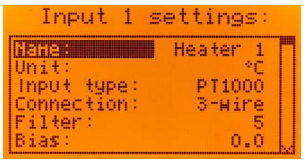
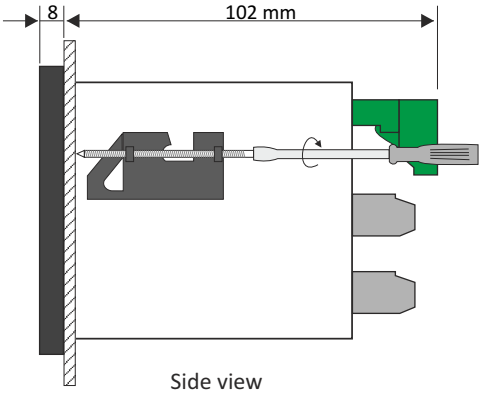


Chart view

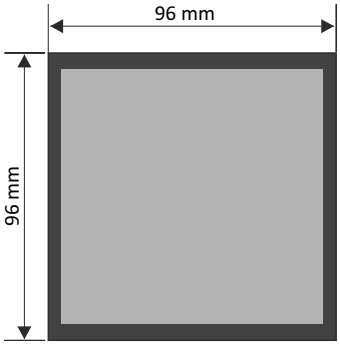


„Input settings" menu

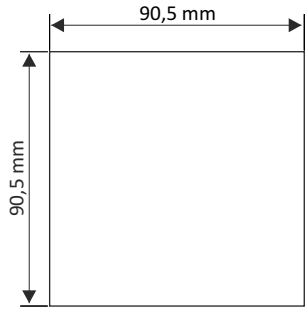
DIMENSIONS



Side view

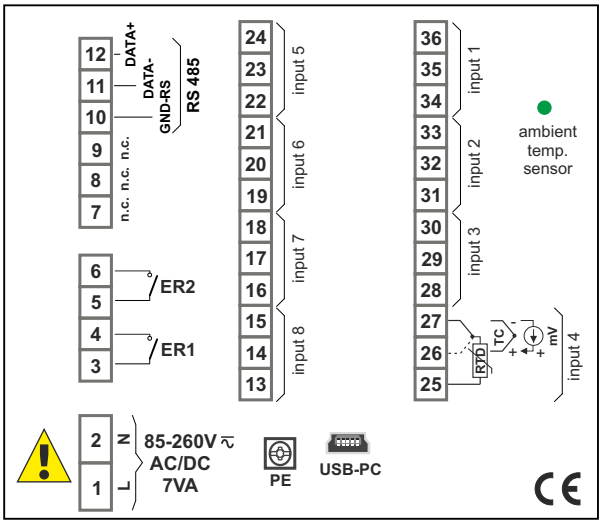


Case dimensions



Panel cut-out dimensions

EXAMPLARY PIN ASSIGNMENTS



ORDERING

SWT-99X-XX28-50-X-0XX

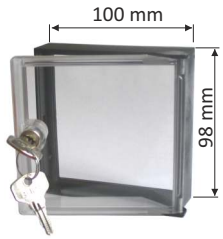
backlight colour:
A : amber
W : white

number & type of inputs:
2T : 2 x TC/RTD
4T : 4 x TC/RTD
8T : 8 x TC/RTD

options:
01 : no options
11 : IP 65 frame
81 : operating temperature -20°C ÷ +50°C including PCB conformal coating
P1 : IP 65 frame + operating temperature -20°C ÷ +50°C including PCB conformal coating

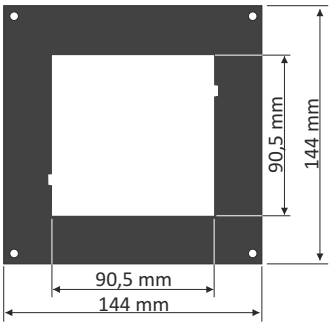
power supply:
3 : 24V AC/DC
4 : 85V - 260V AC/DC

SECURITY DOOR WITH LOCK



STD-99
A transparent door with IP 54 rate and lockable with security key, for 96 x 96 mm case

MOUNTING PLATES



SMP-1414/99
to mount 96 x 96 mm size unit in place of 144 x 144 mm cut-out

BOARD THICKNESS BRACKETS / ADAPTORS

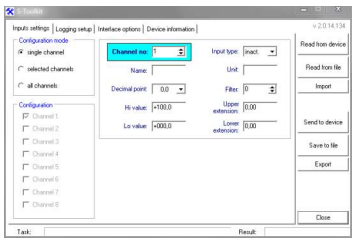
SPH-07
1 ÷ 7 mm board thickness brackets (2 pcs)
standard included with device

SPH-45
1 ÷ 45 mm board thickness brackets (2 pcs)

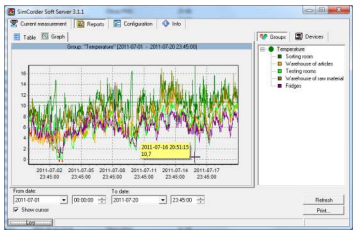
SPH-05
1 ÷ 5 mm board thickness brackets (2 pcs)

SRH-99
brackets for mounting devices on DIN 35/7.5 or 15 rail (2 pcs)

SOFTWARE

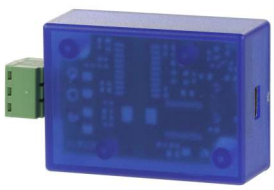


The **S-Toolkit** enables reading and writing operations of configuration, updating the device firmware and obtaining basic information through RS-485 serial interface. This application enables to quickly and easily define device parameters in one of three possible configuration models. The set of parameters can be transmitted directly to the device or stored in a file for future use.



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** converter 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.