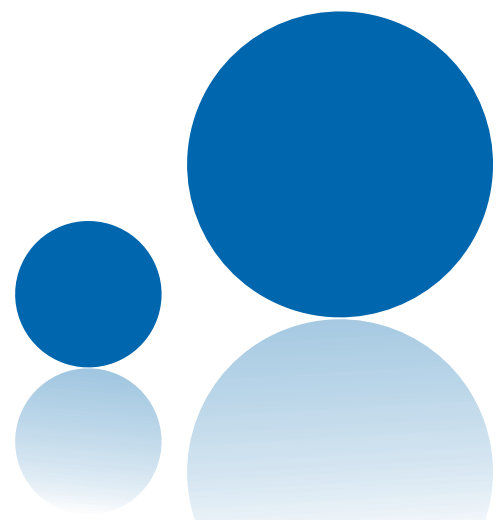


# Product Overview 2012-2013

- Data recorders
- Meters
- Controllers
- Counters
- Sensors / Transmitters
- Separators / Converters
- Power supplies
- Accessories

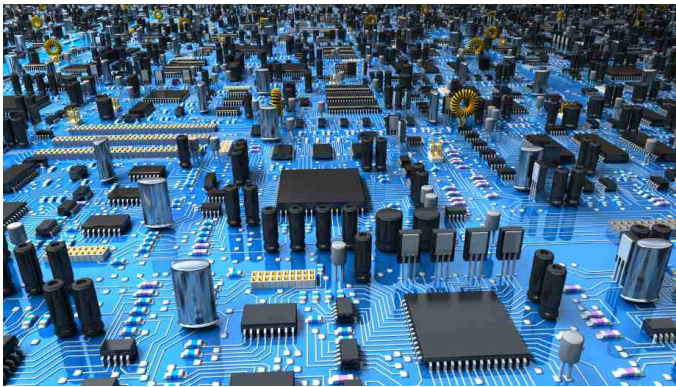







Measure,  
**Control** and Log Data



SIMEX Company exists on the market of industrial automation since 1986 as a manufacturer and distributor of test and measurement instruments. The scope of our manufacture includes equipment used to measure, control and record the temperature, humidity, pressure, level and flow. The test and measurement instruments offered are applicable in many industrial branches such as energy industry, heat engineering, mining, chemical, food and machine branch, and waste water handling. We are specialized also in designing the systems for weighing, among others, the storage and process tanks for food, and chemical and pharmaceutical industry.

Our commercial offer can be operationally adapted to the expectations of our Customers, by reacting quickly to trends and market needs. In addition to standard solutions, we produce the equipment as prepared jointly or customized. We arrange also information and training meetings in our company, and direct presentations of our equipment at Customer's sites.



-  Design of industrial control and manufacturing equipment
-  Manufacture of industrial digital meters and data loggers
-  Distribution of industrial control and manufacturing equipment
-  Providing services in scope of the integration of automatic control systems
-  Warranty and after warranty maintenance (teleservice)

Owing to our considerable experience we are able to offer professional and successful solutions in many industrial branches:

- food,
- chemistry and pharmaceutical,
- machinery,
- power,
- heat-generating,
- sewage system,
- building.



### Services

SIMEX Ltd. specializes in advising on, designing and supplying industrial automation systems for the industry. We offer:

- advising on and technical consultancy,
- designing of automation systems - from simple few measuring points systems to more sophisticated and advanced control systems,
- assembling and supplying measuring and control instruments - our own meters as well as instruments manufactured by local and foreign companies,
- SCADA systems,
- installation and start up of designed systems,
- customer's training and support.

1



### DATA RECORDING

1. Stationary data recorders - p. 4
2. DAQ systems:
  - SimCorder Soft - p. 8
  - TRS - p. 9
  - TRM - p. 10

3



### COUNTERS

1. Electronic counters - p. 18
2. Ratemeters / Tachometers - p. 19
3. Timers - p. 20

5



### SEPARATORS / CONVERTERS / POWER SUPPLIES

1. Galvanic separators - p. 23
2. Converters - p. 23
3. Power supplies - p. 24

7



### ACCESSORIES

for meters, counters and recorders  
p. 26

2



### METERS

1. Universal / multichannel meters - p. 11
2. Process meters - p. 13
3. Temperature meters - p. 14
4. Flow meters - p. 15
5. Weight meters - p. 16
6. Data displays - p. 17

4



### SENSORS / TRANSMITTERS

1. Level switches - p. 21
2. Angle sensors - p. 21
3. Temperature transmitters - p. 22

6



RESEARCH AND DEVELOPMENT  
p. 25

8



### WWW SERVICE

p. 27



## Stationary data recorders



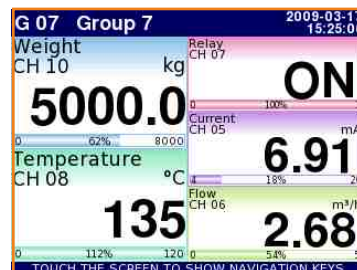
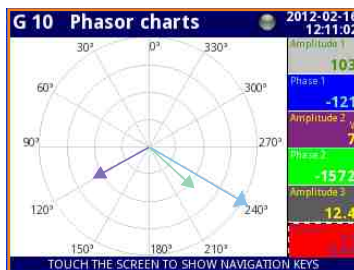
- recorder + meter + controller + HMI in one package
- up to 72 input channels built-in
- communication interfaces: Ethernet, RS-485 / Modbus RTU, USB Host
- 1.5 GB internal memory, enlarged by an external card
- DAQ Manager software for maintenance

The **MultiCon** series devices are advanced recorders with capability of control and measurement, closed in one compact case. They have been designed for both advanced and less demanding applications in industrial automatic control engineering. They feature a colour TFT display with a touch screen (3.5 or 5.7 inch, depending on version). Such a GUI is a pleasure to work with, and the operation of the MutiCon playing the HMI role is intuitive and comfortable. The kernel of the software is LINUX operating system, which ensures stable operation and enables installing advanced software.

## MultiCon

Many possibilities and easy change of data presentation or displayed channels is a feature which might be useful in many cases. Depending on whether we need a detailed information on the signal value, quick insight into the signal level, or parameter trend over time, the data can be presented as:

- numerical values,
- quasi-analog indicators,
- phasor charts,
- horizontal or vertical charts,
- horizontal or vertical bars,
- simultaneous presentation of many groups.



Internal memory of **1.5 GB** is sufficient for over **125 million** of samples!, meaning that even in the intensive sampling mode (every second) you can record data, for example, from 24 channels for 2 months.

	intense (every 1 sec.)	medium (every 10 sec.)	economy (every 1 min.)
60 channels	20 days	6 months	3 years
48 channels	30 days	8 months	4 years
24 channels	50 days	15 months	7 years

a wide range of I/O modules

2 x USB Host ports

IP 65 front panel protection

up to 72  
analog / digital inputs

MultiModbus  
up to 3 x RS-485 interfaces

Java applets

Ethernet

HMI



up to 90 virtual channels  
100 ms sampling max.

3,5" / 5,7" LCD touchscreen

PC keyboard and mouse operation

PID control

profiles / timers

mathematical functions

many data presentation methods

1.5 GB memory for data

free PC software





The distinguishing feature of **MultiCon** is its capability of simultaneous implementation of tasks related to measurements, processing, control and recording of data. To make this possible, the designers have used the concept of “logical channels” which are virtual bridge between physical inputs/outputs and control and visualization processes.

In its most expanded version, a single, compact **MultiCon CMC-99** instrument can include modules which provide in total up to 48 physical inputs and outputs (analogue, digital and relay) and 60 virtual channels. Its slightly bigger brother, **MultiCon CMC-141**, can have up to 72 analog / digital inputs and max. 90 virtual channels.

A well-thought-out modular design allows precise adaptation of the CMC to various specific needs and requirements of all customers. Available is a wide array of input and output modules (current, voltage, universal, thermocouple, RTD, digital, counting, relay, SSR and other).

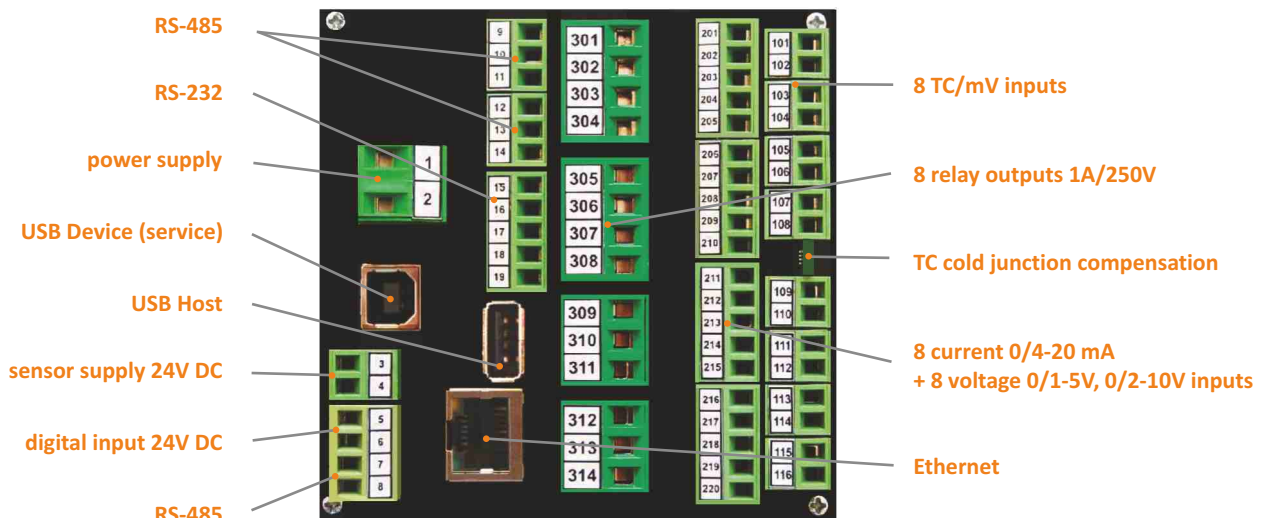


### AVAILABLE INPUT MODULES:

- UN3** 3 universal inputs U/I/RTD/TC/mV, isolated
- UN5** 5 universal inputs U/I/RTD/TC/mV, isolated
- UI4** 4 x voltage input + 4 x current input
- UI8** 8 x voltage input + 8 x current input
- UI12** 12 x voltage input + 12 x current input
- U16** 16 x voltage input
- U24** 24 x voltage input
- IS6** 6 x current input, isolated
- I16** 16 x current input
- I24** 24 x current input
- RT4** 4 x RTD input
- RT6** 6 x RTD input
- TC4** 4 x TC input
- TC8** 8 x TC input
- TC12** 12 x TC input
- D8** 8 x digital input
- D16** 16 x digital input
- D24** 24 x digital input
- CP4** 4 x pulse input, universal counters
- FT2 or FT4** 2 or 4 x pulse input (dedicated for flow/rate applications, each to display both actual and total flow/rate) and 2 or 4 x current input (for general purpose measurement)
- FI2 or FI4** 2 or 4 x current input (dedicated for flow/rate applications, each to display both actual and total flow/rate) and 2 or 4 x current input (for general purpose measurement)

### AVAILABLE OUTPUT and COMMUNICATION MODULES:

- R81** 8 x SPST relay 1A output
- R121** 12 x SPST relay 1A output
- R45** 4 x SPDT relay 5A output
- R65** 6 x SPDT relay 5A output
- S8** 8 x SSR output
- S16** 16 x SSR output
- S24** 24 x SSR output
- IO2** 2 x 4-20 mA output, isolated
- IO4** 4 x 4-20 mA output, isolated
- IO6** 6 x 4-20 mA output, isolated
- USB** USB port (rear)
- ACM** advanced communication module (1 x RS-485, 1 x RS-485/232, 1 x USB Host, 1 x Ethernet 10 MB)



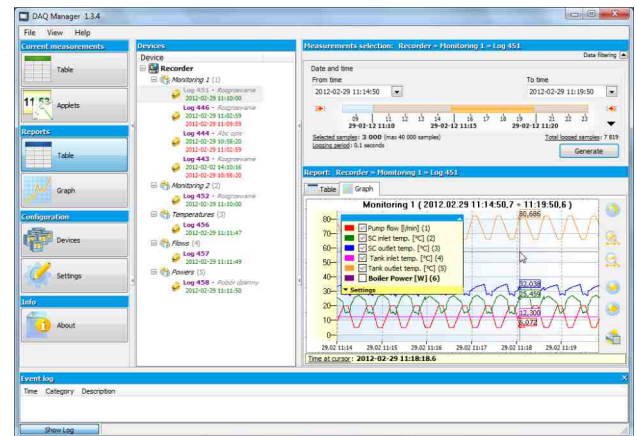
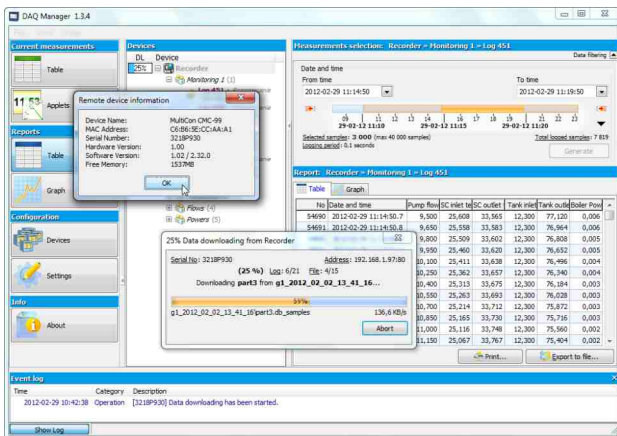
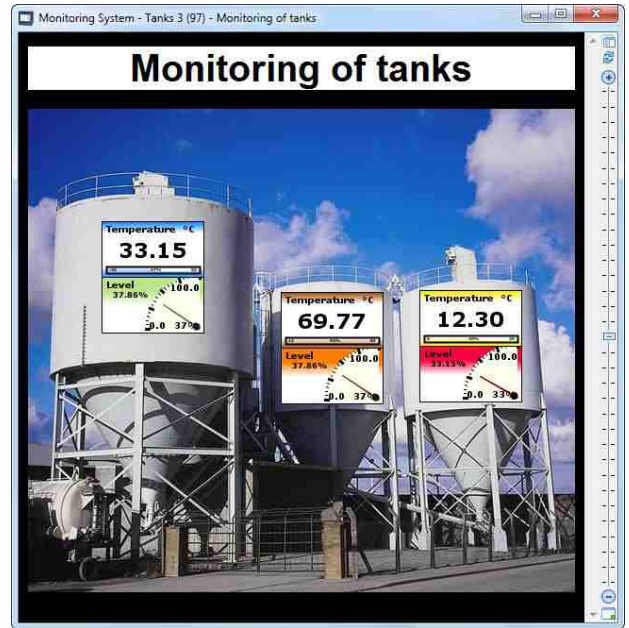


## Stationary data recorders

The MultiCon series devices equipped with the ACM (Advanced Communication Module) allow also a very easy remote monitoring of measurement results using a web browser, as well as a very attractive graphical presentation in the form of built-in or user-created websites. Along with the device, the manufacturer supplies a set of built-in Java applets which using the Modbus TCP protocol provide the programmers with easy mechanisms to retrieve data from the device, as well as ready-to-use formats of data presentation on the computer screen. An applet is software which can be opened by an Internet browser. It is possible to create your own website or use one of the templates included in CMS. This solution helps to visualize your system and display the data downloaded from CMC by means of Ethernet. Tank visualisations with bar graphs which indicate liquid level and pipes connected to the tanks with valves, valve state indicators and flow meters indicating flow speed or total liquid flow.



DAQ Manager software is used for service of data loggers MultiCon CMC type. The software allows to visualize recorded data in the form of graphs and tables, group measurement results, create reports and export data into other files.



	CMC-99	CMC-141
Power supply	19 ÷ 50V DC, 16 ÷ 35V AC or 85 ÷ 260V AC/DC; 15 VA typ., 20 VA max.	19 ÷ 50V DC, 16 ÷ 35V AC or 85 ÷ 260V AC/DC; 25 VA typ., 35 VA max.
Display	3.5" graphic TFT, 320 x 240 pixels + touchscreen navigation	5.7" graphic TFT, 320 x 240 pixels + touchscreen navigation
Measuring inputs	- up to 9 universal - up to 48 analog - up to 48 digital - up to 24 TC / 12 RTD - up to 12 counter / flowmeters / ratemeters	- up to 15 universal - up to 72 analog - up to 72 digital - up to 36 TC / 18 RTD - up to 18 counter / flowmeters / ratemeters
Digital input	1 x 24V DC, optocoupled	1 x 24V DC, optocoupled
Outputs	- up to 8 analog - up to 16 SPST relay 1A/250V - up to 4 SPDT relay 5A/250V - up to 32 SSR	- up to 18 analog - up to 36 SPST relay 1A/250V - up to 18 SPDT relay 5A/250V - up to 72 SSR
Sensor supply	1 x 24V DC ±5%, max. 200 mA	1 x 24V DC ±5%, max. 200 mA
Communication interface	standard: RS-485/Modbus RTU, USB Host enhanced version (incl. ACM module): 2 x RS-485, 1 x RS-485/232, 2 x USB Host, 1 x Ethernet 10 MB	standard: RS-485/Modbus RTU, USB Host enhanced version (incl. ACM module): 2 x RS-485, 1 x RS-485/232, 2 x USB Host, 1 x Ethernet 10 MB
IP rate protection	IP 65 or IP 40 (with front USB), available additional frame IP 65 for panel cut-out sealing and transparent door IP 54 with key	IP 65 or IP 40 (with front USB), available additional frame IP 65 for panel cut-out sealing and transparent door IP 54 with key
Case dimensions	96 x 96 x 100 mm	144 x 144 x 100 mm

# Stationary data recorders



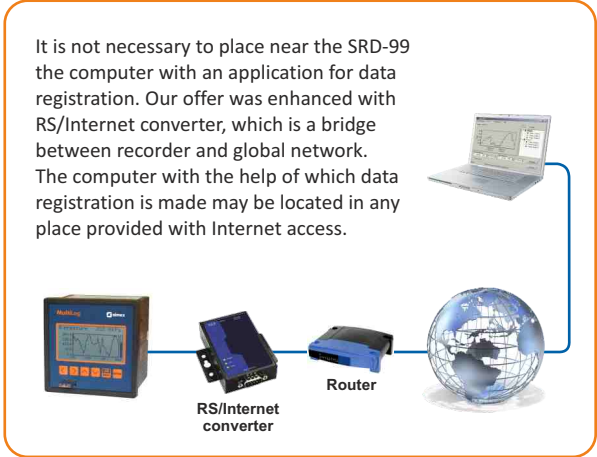
- up to 8 inputs 0/4 - 20 mA or Pt100/Pt500/Pt1000
- 2 electronic relay outputs (optoMOS)
- RS-485 / Modbus RTU communication
- USB Host port for flash data storage
- current graph of trends for each channel separately

The **MultiLog SRD-99** device is designed to record and display current values as well as to present technological parameters in the form of graphs. The device is equipped with 8 temperature (Pt100/500/1000) or current (in the 0/4-20 mA standard) inputs, one pulse (digital) input for controlling the recording process and one USB Host port for flash data storage. Internal memory has 2 MB or 8 MB capacity (in version with USB port).

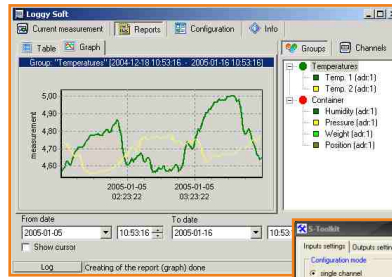
**MultiLog SRD-99** is equipped with 2 electronic relays with max. load 24V AC (35V DC) 200 mA. Main function of outputs is a signalisation of critical situations, but thanks to expanded menu it is possible to use it in numerous control and regulation applications. Both outputs can be driven by single measurement channel or by group of channels (from 1 to 8 channels) with individually adjustable thresholds for every measurement channel. Signalisation of output state is made as two fields described R1 and R2 in left upper corner of LCD screen.



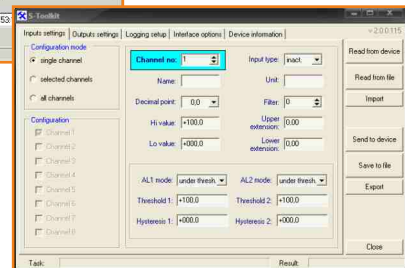
**MultiLog**



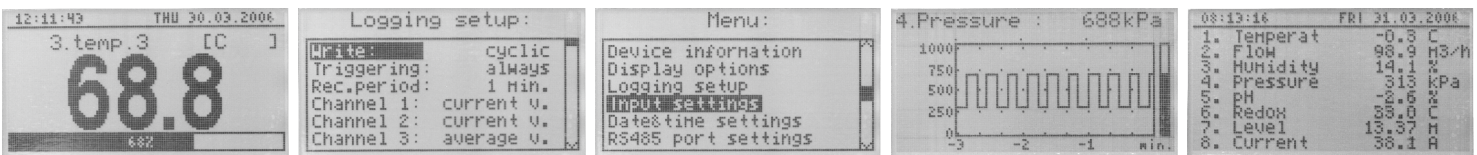
Free software to work with data recorder:



- **S-Toolkit** : enables the configuration reading and writing operations, updating the device firmware and obtaining basic information through RS-485 interface,
- **Loggy Soft** : enables the visualization, archiving and printing of measurements stored in SRD-99-type device memory.



The data can be presented as: numerical or percentage values or graphic visualization of charts.



	SRD-99-X128	SRD-99-X328
<b>Power supply</b>	19 ÷ 50V DC, 16 ÷ 35V AC or 85 ÷ 260V AC/DC; 7 VA typ., 12 VA max.	19 ÷ 50V DC, 16 ÷ 35V AC or 85 ÷ 260V AC/DC; 7 VA typ., 12 VA max.
<b>Display</b>	graphic LCD, 128 x 64 points, with backlight	graphic LCD, 128 x 64 points, with backlight
<b>Measuring inputs</b>	1, 4 or 8 x 0/4-20 mA	1, 4 or 8 x Pt100/Pt500/Pt1000
<b>Digital input</b>	1 x 24V DC, optocoupled	1 x 24V DC, optocoupled
<b>Outputs</b>	2 electronic relays with max. load 24V AC (35V DC) / 200 mA	2 electronic relays with max. load 24V AC (35V DC) / 200 mA
<b>Sensor supply</b>	1 x 24V DC ±5%, 200 mA max.	
<b>Data memory</b>	2 MB (above 0.5 million data recordings) in version without USB 8 MB (above 2 millions data recordings) in version with USB Host port	2 MB (above 0.5 million data recordings) in version without USB 8 MB (above 2 millions data recordings) in version with USB Host port
<b>Communication</b>	RS-485/Modbus RTU lub USB Host	RS-485/Modbus RTU lub USB Host
<b>IP rate protection</b>	IP 65 or IP 40 (with front USB), available additional frame IP 65 for panel cut-out sealing and transparent door IP 54 with key	IP 65 or IP 40 (with front USB), available additional frame IP 65 for panel cut-out sealing and transparent door IP 54 with key
<b>Case dimensions</b>	96 x 96 x 100 mm	96 x 96 x 100 mm

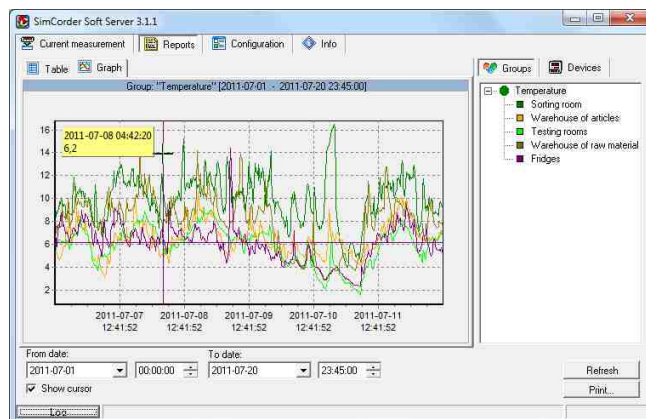
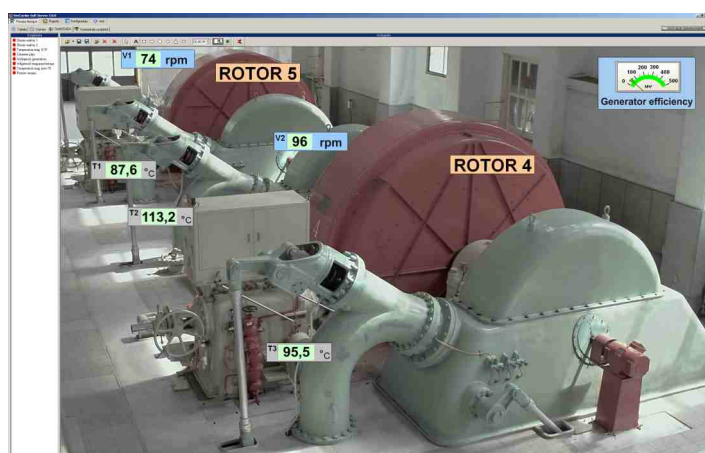




## DAQ systems - SimCorder Soft

- easy configuration of data communication connections
- ability to send alert emails and SMS
- extended reporting systems
- graphical process visualisation
- operates with SIMEX equipment provided with Modbus RTU SLAVE

**SimCorder Soft** visualisation software was created to improve the operation with extended networks of SIMEX Company's equipment. Acquisition, archiving, visualisation, reporting, and exporting the measurement data from all the devices in the network has become extremely easy. You only need one computer. SimCorder Soft communicates with equipment via RS-485/Modbus RTU interface and automatically reads the measurement data from it.



A **Network** module provides a preview of measurement data, alarm statuses and configuration via Internet. To one of the computer with connected equipment network, which serves as data server, up to 10 various computers may be connected via TCP/IP, depending on the license selected.

**SemiSCADA** visualization module, which is a separate license of SimCorder Soft, allows you to graphically present the process status, which greatly facilitates the observation and analysis to persons being responsible for service and maintenance.

Device name	[Unit]	Cur. measurement	Avg. measurement	Max measurement	Min measurement
Pump flow	[l/min]	20,0	16,8	28,0	13,5
SC inlet temp.	[°C]	15,7	20,1	24,6	15,7
SC outlet temp.	[°C]	28,2	31,3	34,4	28,2
Tank inlet temp.	[°C]	12,3	12,3	12,3	12,3
T tank outlet temp.	[°C]	66,2	69,3	72,4	66,2
Boiler Power	[W]	527	264	527	0
Boiler T temp.	[°C]	85,0	85,0	85,0	85,0
Water flow	[l/min]	50,0	41,0	50,0	32,0
Pump Power	[W]	116	104	116	92
Air Temp. (in case)	[°C]	33,2	36,4	39,5	33,2
CMC-88 CH17 (I)	[I]	---	---	---	---
CMC-88 CH18 (I)	[I]	---	---	---	---
CMC-88 CH19 (I)	[I]	---	---	---	---
CMC-88 CH20 (I)	[I]	---	---	---	---
CMC-88 CH21 (I)	[I]	---	---	---	---
CMC-88 CH22 (I)	[I]	---	---	---	---
FMF-88 FH23 (I)	[I]	---	---	---	---



After detecting an alarm status **SimCorder Soft Alarm** sends a SMS and email informing about its occurrence to the relevant telephone numbers and address boxes. This allows for an immediate response, for example, if a system failure, too low level of liquid in the tank, too high temperature in cold room, etc. occurs, while avoiding long and expensive downtime.

### IN SIMCORDER SOFT OFFER THERE ARE FOLLOWING LICENSES:

- SB** SimCorder Soft Basic USB License Dongle
- SBS** SimCorder Soft Basic & semiSCADA USB License Dongle
- SA** SimCorder Soft Alarm (software with SMS and e-mail alarm functions) USB License Dongle
- SAS** SimCorder Soft Alarm (software with SMS and e-mail alarm functions) & semiSCADA USB License Dongle
- SN3** SimCorder Soft Network (licence for 3 PC stations) USB License Dongle
- SNS3** SimCorder Soft Network (licence for 3 PC stations) & semiSCADA USB License Dongle
- SN10** SimCorder Soft Network (licence for 10 PC stations) USB License Dongle
- SNS10** SimCorder Soft Network (licence for 10 PC stations) & semiSCADA USB License Dongle

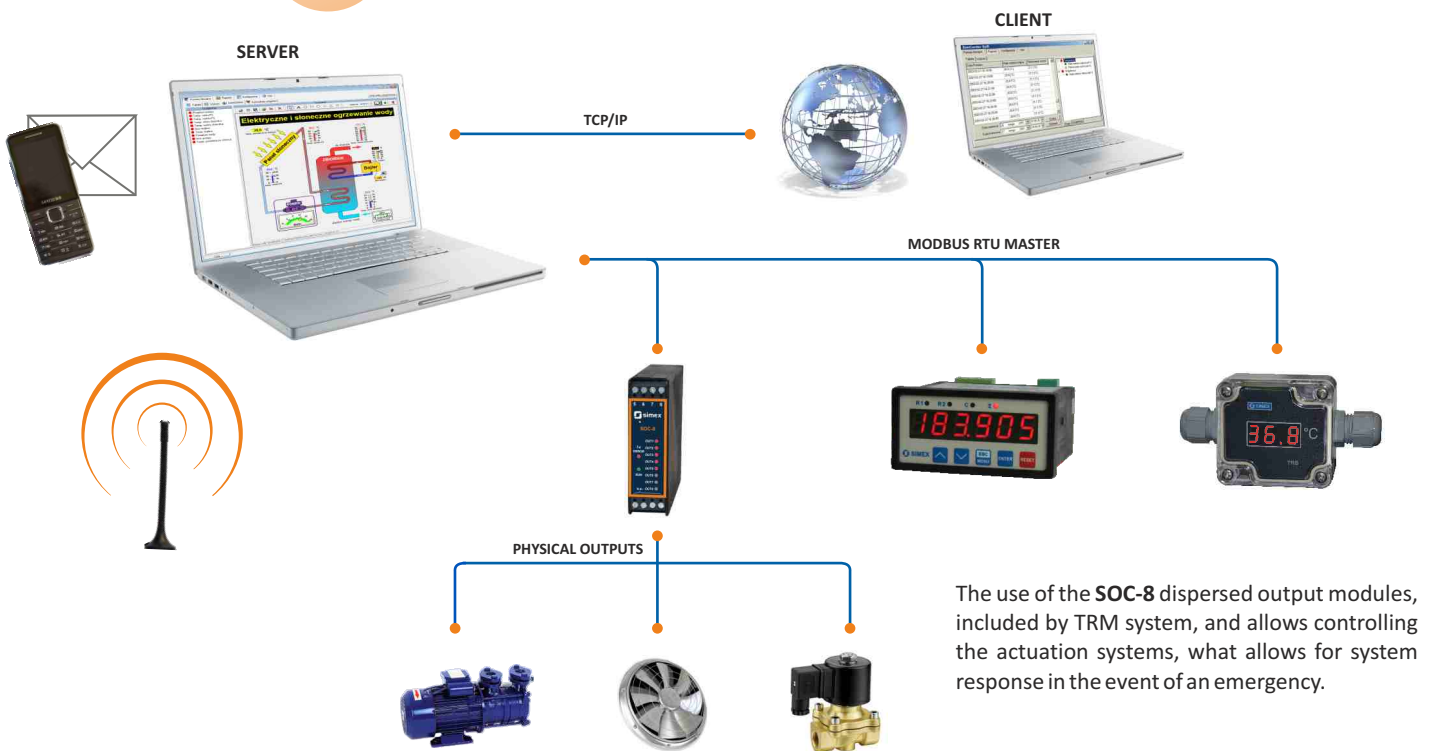




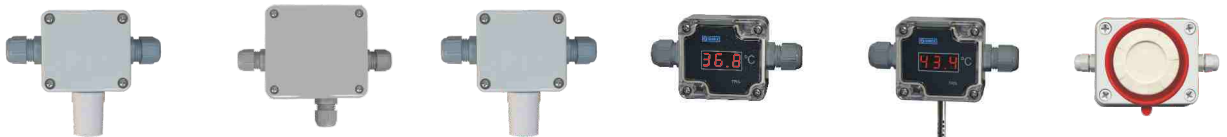


- collection, recording and sharing of information on temperature and humidity
- RS-485 / Modbus RTU communication
- possibility of connecting max. 127 modules on the RS-485 line in one network
- network solutions
- SimCorder software to support the system

Temperature and humidity recording **TRS** system is a family of measuring equipment based on the SimCorder Soft software and dedicated temperature and humidity measuring converters. Its main tasks can include: collection, recording and sharing information on temperature and humidity, e.g. in cold rooms, production halls. TRS system is featured by ease of mounting, so that the purchaser can install it by itself.



The use of the **SOC-8** dispersed output modules, included by TRM system, and allows controlling the actuation systems, what allows for system response in the event of an emergency.



	TRS-01a	TRS-02a	TRS-04a	TRS-10a	TRS-11a	TRS-B1a
Measuring sensor	temperature sensor (semiconductor integrated circuit)	Pt 100 sensor	temperature sensor (semiconductor integrated circuit); humidity sensor	-	temperature sensor (semiconductor integrated circuit)	-
Range / Error	-40 ÷ +85°C / ±0,5°C (-10 ÷ +50°C)	-50 ÷ +550°C / ±0,2%	0 ÷ +70°C / ±0,5°C 0 ÷ 100% RH / ±2% RH	-	-40 ÷ +85°C / ±0,5°C (-10 ÷ +50°C)	-
IP rate protection	IP 65 (case) IP 30 (sensor)	IP 65	IP 65 (case) IP 30 (sensor)	IP 65	IP 65 (case) IP 40 (sensor)	IP 65
Comments	-	external Pt 100 sensor	-	display 4 x 9 mm	display 4 x 9 mm	sound or light signal



## DAQ systems - TRM

- Modbus RTU Slave
- DIN TS-35 bus mounting
- full equipment diagnostics
- multi-point inspection of process parameters
- galvanic separation of inputs/outputs from the voltage



TRM DAQ systems, based on multi-point communication modules, using the Modbus RTU bus, allow to inspect process parameters. These systems, through significant reduction of required wiring (usually one four-wire line), become more and more used in the newly constructed and upgraded control and survey systems. Modbus RTU communication provides the ability to inspect and make diagnostics of entire system, which is equally in priority as a technology measurement and process regulation.



	SIN-8	SOC-8	SLI-8	SIAI-8P	SIAI-8N	SPT-86L
Power supply	24V DC (16 ÷ 30V DC)	24V DC (16 ÷ 30V DC)	24V DC (16 ÷ 30V DC)	24V DC (16 ÷ 30V DC)	24V DC (16 ÷ 30V DC)	24V DC (16 ÷ 30V DC)
Inputs	8 voltage	-	8 multi counters	0-20 mA; 4-20 mA	0/2-10 V; 0/1-5 V	0-60/75/100/150 mV Pt100, Pt500, Pt1000 TC (K, S, J, T, N, R, B, E)
Outputs	-	8 binary	-	-	-	3,4 ÷ 24 mA

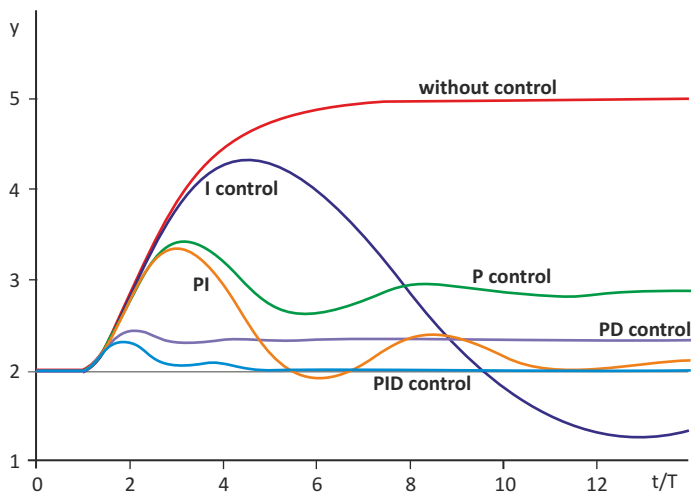
# Universal multichannel meters



The **MultiCon** series devices are advanced controllers with capability of measurement and data recording, closed in one compact case. They have been designed for both advanced and less demanding applications in industrial automatic control engineering. They feature a colour TFT display with a touch screen (3.5 or 5.7 inch, depending on version). Such a GUI is a pleasure to work with, and the operation of the MutiCon playing the HMI role is intuitive and comfortable. The kernel of the software is LINUX operating system, which ensures stable operation and enables installing advanced software.

- meter + controller + recorder + HMI in one package
- controller modes: PD, PI, PID, ON/OFF
- mathematical and logical functions
- communication interfaces: Ethernet, RS-485 / Modbus RTU
- 1.5 GB internal memory, extended by external card
- DAQ Manager software for maintenance

One of the most important functions of MultiCon is a controlled configuration menu of built-in outputs (e.g. relays) which allows to use them directly as so-called two-position controllers.



**MultiCon**

Meters

In addition to ordinary ON/OFF control using binary signals, MultiCon allows PID control using built-in and external analogue outputs or SSR outputs in the PWM mode.

Each of 60 (90) logical channels can be set in the PD, PI, PID controller modes with an independent set point, input and output. The user can choose from 8 sets of PID control parameters (available in the "Controller" submenu) each of which can be assigned to many logical channels operating in the controller mode. This is a perfect solution when many similar processes need to be controlled. A necessary supplement to the control functions of the device is a possibility of automatic change of the set value - timers/profiles. They allow for generating signals of a user-defined waveform and duration.

More information about MultiCon CMC in the recorder function, communication interfaces and DAQ Manager software are described in the section "Data recording", p. 4-6.

	CMC-99	CMC-141
Power supply	19 ÷ 50V DC, 16 ÷ 35V AC or 85 ÷ 260V AC/DC; 15 VA typ., 20 VA max.	19 ÷ 50V DC, 16 ÷ 35V AC or 85 ÷ 260V AC/DC; 25 VA typ., 35 VA max.
Display	3.5" graphic TFT, 320 x 240 pixels + touchscreen navigation	5.7" graphic TFT, 320 x 240 pixels + touchscreen navigation
Measuring inputs	- up to 9 universal - up to 48 analog - up to 48 digital - up to 24 TC / 12 RTD - up to 12 counter / flowmeters / ratemeters	- up to 15 universal - up to 72 analog - up to 72 digital - up to 36 TC / 18 RTD - up to 18 counter / flowmeters / ratemeters
Digital input	1 x 24V DC, optocoupled	1 x 24V DC, optocoupled
Outputs	- up to 8 analog - up to 16 SPST relay 1A/250V - up to 4 SPDT relay 5A/250V - up to 32 SSR	- up to 18 analog - up to 36 SPST relay 1A/250V - up to 18 SPDT relay 5A/250V - up to 72 SSR
Sensor supply	1 x 24V DC ±5%, max. 200 mA	1 x 24V DC ±5%, max. 200 mA
Communication interface	standard: RS-485/Modbus RTU, USB Host enhanced version (incl. ACM module): 2 x RS-485, 1 x RS-485/232, 2 x USB Host, 1 x Ethernet 10 MB	standard: RS-485/Modbus RTU, USB Host enhanced version (incl. ACM module): 2 x RS-485, 1 x RS-485/232, 2 x USB Host, 1 x Ethernet 10 MB
IP rate protection	IP 65 or IP 40 (with front USB), available additional frame IP 65 for panel cut-out sealing and transparent door IP 54 with key	IP 65 or IP 40 (with front USB), available additional frame IP 65 for panel cut-out sealing and transparent door IP 54 with key
Case dimensions	96 x 96 x 100 mm	144 x 144 x 100 mm





## Multichannel meters

- 2, 4 or 8 measuring channels
- current or temperature input signals
- 2 electronic relay outputs
- RS-485 / Modbus RTU communication
- data presentation as charts, numerical or percentage values



Multichannel indicators are intended for measuring and presentation of current values from up to 8 measuring channels at the same time. The user can choose inputs in 0/4 - 20 mA or Pt 100, Pt 500, Pt 1000 standard. Each channel can be individually designated (described) with any measuring unit. A significant advantage is possibility of viewing the trends in each measuring channel as the graphs for the last 12 seconds or about 1,5 minutes. Device is equipped in electronic relay outputs that can be used to control external devices.

## Universal meters

- universal input: U / I / RTD / TC / mV
- relay and sensor supply (24V DC) outputs
- RS-485 / Modbus RTU communication



Universal meters is a specific group of equipment. The user may choose the input: 0/4-20 mA, 0-10V, 0-150 mV, Pt 100/500/1000 or the thermocouple (K, S, J, T, N, R, B, E). The user receives 2 or 4 REL or OC type outputs to regulate and indicate the process statuses, and using of 0/4-20 mA output can make PID regulation. This type of configuration allows using the meter in almost each of the adjustment and control processes. Process meters with universal input are of particular importance for persons being responsible for service and maintenance. Eliminating of many process meters configurations, in Spare Parts Store, reduces the actual cost of its upkeep.

	Control: PID	-	-	PUR-94	PUR-147
	Control: ON / OFF	SWP-99	SWT-99	SUR-94	SUR-147
Outputs:	REL	2	2	2 or 4	2 or 4
	OC	-	-	2 or 4	2 or 4
	24V DC	•	-	•	•
	0-20 mA, 4-20 mA	-	-	•	•
Inputs:	0-20 mA, 4-20 mA	2, 4 or 8	-	•	•
	0-5V, 1-5V, 0-10V, 2-10V	-	-	•	•
	0-60, 75, 100, 150 mV	-	-	•	•
	Pt100, Pt500, Pt1000	-	2, 4 or 8	•	•
	TC	-	-	•	•
Supply:	AC: 24V / 110V / 230V	- / - / -	- / - / -	- / - / -	- / - / -
	DC: 24V	-	-	-	-
	AC DC: 24V / 85±260V	• / •	• / •	• / •	• / •
Display	graphic LCD, with backlighting	graphic LCD, with backlighting	4 x 20 mm	4 x 38 mm	
Case dimensions [mm]	96 x 96 x 100	96 x 96 x 100	96 x 48 x 100	144 x 72 x 100	

Legend: „•” standard, „-” option unavailable

# Process meters



- 1 measurement input: current or voltage
- 1, 2 or 4 control outputs - relay or OC
- PRP versions with PID control
- active current output
- 24V DC sensor supply output
- RS-485 / Modbus RTU communication
- two-coloured LED display (version 73)
- standard case dimensions
- panel or wall mounting



Meters



The digital process meters are equipped with one measuring input, current 0/4-20 mA or voltage 0/1-5V, 0/2-10V, 0-60 / 0-75 / 0-100 / 0-150 mV. Easy programming and installation, small size and high reliability are basic advantages of these meters. 1, 2 or 4 relay outputs make it possible to control processes PID or ON/OFF type and to adjust the level of the measured signal.

The 24V DC output is used to power the measuring transducers. The RS-485/Modbus RTU enables data transmission in production process monitoring systems. The user can select a conversion characteristic of several kinds: linear, square, square root, user defined (max. 20 points length) and and volume characteristics of a cylindrical tank in the vertical and horizontal position.



			PRP-73	PRP-77	PRP-94	PRL-49	PRP-147	PRP-457	PRP-N118
Control: PID	-	-	PRP-73	PRP-77	PRP-94	PRL-49	PRP-147	PRP-457	PRP-N118
Control: ON / OFF	SWE-73-A	SWE-73-L	SRP-73	SRP-77	SRP-94	SRL-49	SRP-147	SRP-457	SRP-N118
Outputs:	REL	-	1 or 2	1 or 2	2 or 4	2 or 4	2 or 4	1	2
	OC	-	1 or 2	1 or 2	2 or 4	2 or 4	2 or 4	1	2
Inputs:	24V DC	-	•	•	•	•	•	•	•
	0-20 mA, 4-20 mA	-	-	-	•	•	•	-	-
	0-20 mA, 4-20 mA	•	•	•	•	•	•	•	•
Supply:	0-5V, 1-5V, 0-10V, 2-10V	•	•	•	•	•	•	•	•
	0-60, 75, 100, 150 mV	-	-	•	-	-	•	-	-
	loop powered	-	•	-	-	-	-	-	-
Supply:	AC: 24V / 110V / 230V	- / • / •	- / - / -	- / - / -	- / - / -	- / - / -	- / - / -	- / - / -	• / • / •
	DC: 24V	-	•	-	-	-	-	-	-
	AC DC: 24V / 85÷260V	- / -	- / -	• / •	• / •	• / •	• / •	• / •	- / -
Display	4 x 13 mm	4 x 13 mm	4 x 13 mm or 4 x 9 mm	4 x 13 mm + 4 x 10 mm	4 x 20 mm	4 x 9 mm + 20-points bargraph	4 x 38 mm	4 x 57 mm	4 x 20 mm
Case dimensions [mm]	DC: 72x36x77 AC: 72x36x94	72 x 36 x 77	72 x 36 x 97	72 x 72 x 100	96 x 48 x 100	48 x 96 x 100	144 x 72 x 100	215x185x96,5 230x140x115	110 x 105 x 67

Legend: „•” standard, „-” option unavailable



## Temperature meters



- 1 measurement input: RTD or TC
- 1, 2 or 4 control outputs - relay or OC
- PRT versions with PID control
- active current output
- 24V DC sensor supply output
- RS-485 / Modbus RTU communication
- two-coloured LED display (version 73)
- panel, wall or DIN rail mounting



The digital temperature meters are equipped with one measuring input: thermoresistance (Pt100/500/1000) or thermocouple (K, S, J, T, N, R, B, E). Measurement is linearised by the polynomial characteristics. The devices with thermocouple input have additional measurement range (-10 ÷ 90 mV) mainly for diagnostics of measurement circuits. Easy programming and installation, small size and high reliability are basic advantages of these meters. 1, 2 or 4 relay outputs make it possible to control processes PID or ON/OFF type and to adjust the level of the measured signal. The 24V DC output is used to power the measuring transducers. The RS-485/Modbus RTU enables data transmission in production process monitoring systems.



		PRT-73	PRT-77	PRT-94	PTN-94	PRT-147	PRT-N118	PRT-457	PRT-L70	
Control: PID	-	PRT-73	PRT-77	PRT-94	PTN-94	PRT-147	PRT-N118	PRT-457	PRT-L70	
Control: ON / OFF	SWE-73-T	SRT-73	SRT-77	SRT-94	STN-94	SRT-147	SRT-N118	SRT-457	SRT-L70	
Outputs:	REL	-	1 or 2	1 or 2	2 or 4	1	2 or 4	2	3	
	OC	-	1 or 2	1 or 2	2 or 4	-	2 or 4	2	-	
	24V DC	-	•	•	•	•	•	•	•	
	0-20 mA, 4-20 mA	-	-	-	•	-	•	-	-	
Inputs:	0-20 mA, 4-20 mA	-	-	-	-	-	-	-	-	
	0-5V, 1-5V, 0-10V, 2-10V	-	-	-	-	-	-	-	-	
	0-60, 75, 100, 150 mV	-	-	-	-	-	-	-	-	
	Pt100, Pt500, Pt1000	•	•	•	•	•	•	•	•	
TC	-	•	•	•	•	•	•	•		
Supply:	AC: 24V / 110V / 230V	- / • / •	- / - / -	- / - / -	- / - / -	- / - / -	- / - / -	• / • / •	- / - / -	- / - / -
	DC: 24V	•	-	-	-	-	•	-	-	
	AC DC: 24V	-	•	•	•	•	-	•	-	
	AC DC: 85÷260V / 19÷70V	- / -	• / -	• / -	• / -	• / -	• / -	- / -	• / -	• / •
Display	4 x 13 mm	4 x 13 mm or 4 x 9 mm	4 x 13 mm + 4 x 10 mm	4 x 20 mm	3 x 13 mm + 3 x 13 mm	4 x 38 mm	4 x 20 mm	4 x 57 mm	4 x 13 mm	
Case dimensions [mm]	DC: 72x36x77 AC: 72x36x94	72 x 36 x 97	72 x 72 x 100	96 x 48 x 100	96 x 48 x 100	144 x 72 x 100	110 x 105 x 67	215x185x96,5 230x140x115	72 x 91 x 59	

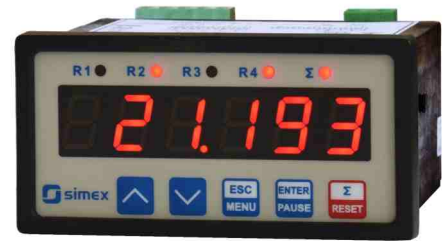
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# Flow meters



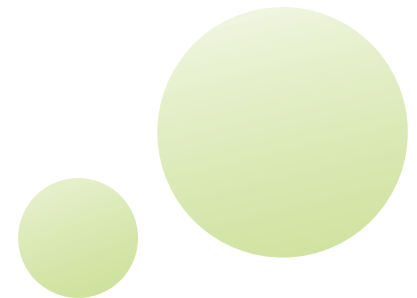
- 1 input: pulse or current
- 1, 2 or 4 control outputs - relay or OC
- 24V DC sensor supply output
- RS-485 / Modbus RTU communication
- display of instantaneous value and the total flow
- batching and counting of doses
- setting the volume units and the flow time
- panel or wall mounting



Meters



The flow meters are designed to work in tandem with the pulse flow transducers with coefficients ranging from 0,01 to 9999,99 pulses per litre, equipped with electronic (open collector) or contact input. A flow counter allows to measure the actual instantaneous value and to record the total flow of fluids, gases or bulk materials. Wide range of total flow (up to 16 significant digits) enables flow volume control for a long time. Build in a batcher function makes possible application in a wide range of industry branches (food production, pharmacy, paint and varnish). The devices can be equipped with 1, 2 or 4 relay (or OC type) outputs, which can be driven due to instantaneous flow, total flow or batcher counter value.

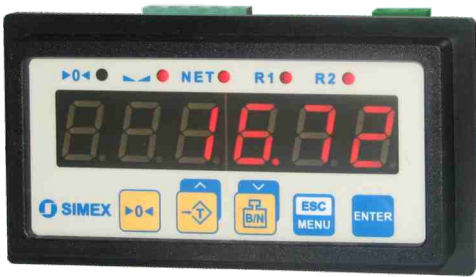


		SPI-73	SPI-94	SPI-N118	SPP-94	SPP-N118
Outputs:	REL	1	2 or 4	2	2 or 4	2
	OC	1	2 or 4	2	2 or 4	2
	24V DC	•	•	•	•	•
	0-20 mA, 4-20 mA	-	•	-	•	-
Inputs:	0-20 mA, 4-20 mA	-	-	-	-	•
	pulse	•	•	•	•	•
	counter reset	•	•	•	+	+
	counting blockade	-	•	•	+	+
Supply:	programmable	-	-	-	•	•
	AC: 24V / 110V / 230V	- / - / -	- / - / -	- / • / •	- / - / -	- / • / •
	DC: 24V	-	-	•	-	•
	AC DC: 24V / 85÷260V	• / •	• / •	- / -	• / •	- / -
	Display	LED 6 x 9 mm	LED 6 x 13 mm	LED 6 x 13 mm	LED 6 x 13 mm	LED 6 x 13 mm
	Case dimensions [mm]	72 x 36 x 97	96 x 48 x 100	110 x 105 x 67	96 x 48 x 100	110 x 105 x 67

Legend: „•” standard, „-” option unavailable, „+” possibility function of programmable input



## Weight meters



- work with load cells in weighing and force measurement systems
- calibrated using theoretical characteristic or real load
- 1 digital input
- 2 relay outputs
- active current output
- RS-485 / Modbus RTU communication
- detection of peak values

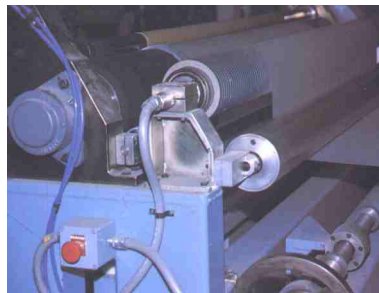


Weight meter is designed to work with load cells (strain gages) in applications not required to be approved. Device is equipped with push-buttons which allow easy setting of tare and zero and also switching between nett and gross indications. Build in analogue output and RS-485 interface enable remote control of the device by a host system if required. 2 relay outputs allow to use the SWI-94 as controller for simple systems with batching function. The device software enables to use two calibration methods: data sheet calibration, or dead weight calibration. All critical states of the device are signalled by proper error messages.

Force measurement in materials testing



Multi-Zone Web Tension Measurement and Control



Batching Processes Reactors and Process Vessels



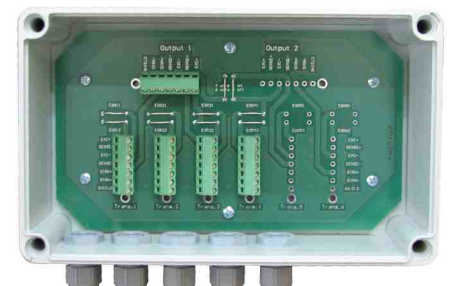
Single- or Multi-Vessel Process Weighing



### Accessories

#### SP-4 or SP-6 load cell junction box

Junction box allows for quick and easy connection from 2 up to 6 load cells in multisensor systems, such as tank scales. The large enclosure of the junction box lets you put excess cable of the load cells inside the box (the cable length shortening is not recommended).



# Data displays



- RS-485 serial input / Master or Slave
- display data in the binary, BCD or byte format
- 24V DC sensor supply output
- multicoloured LED display
- colour and brightness adjustment of the display
- large-size models available
- programming with IR remote controller
- panel or wall mounting

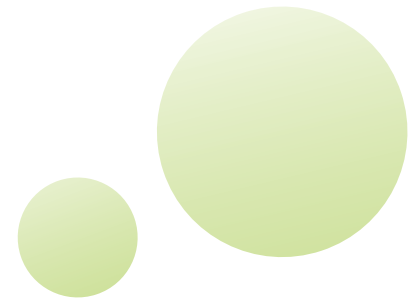


Meters



The serial meters are intended for displaying any numerical data and characters defined by user sent from the master device over the RS-485 link (Modbus RTU protocol). User has the possibility of colour adjustment (among others red, yellow and green) as well as brightness adjustment of the display. Posiadają 4-button keyboard for programming basic settings. To allow user to change presets without opening the cover, an IR sensor is mounted. Remote controller keyboard is equivalent to the device keyboard.

**SW-BCD-94** indicators can be used as the indicator output for PLCs to display data in the binary, BCD or byte format or to show typical information transmitted over the RS-485 interface.



	SWE-73-S	SWS-73	SWS-94	SW-BCD-94	SWS-457	SWS-N118	SWS-W606	SWS-W510
24V DC output	-	•	•	•	•	•	-	•
Inputs:	RS-485 MASTER	-	•	-	•	•	•	•
	RS-485 SLAVE	•	•	•	•	•	•	•
	parallel	-	-	-	•	-	-	-
Supply:	AC: 24V / 110V / 230V	- / • / •	- / - / -	- / - / -	- / - / -	• / • / •	- / - / -	- / - / -
	DC: 24V	•	-	-	-	•	•	-
	AC DC: 24V / 85÷260V	- / -	• / •	• / •	• / •	• / •	- / -	• / •
Display	4 x 13 mm	4 x 13 mm or 4 x 9 mm	4 x 20 mm or 6 x 13 mm	4 x 20 mm	4 x 57 mm	4 x 20 mm	6 x 57 mm	5 x 100 mm
IP rate protection	IP 40 (front) IP 65 (option)	IP 40 (front) IP 65 (option)	IP 65 (front)	IP 65 (front)	IP 65 (standard) IP 67 (option)	IP 65	IP 40	IP 30
Case dimensions [mm]	DC: 72 x 36 x 77 AC: 72 x 36 x 94	72 x 36 x 97	96 x 48 x 100	96 x 48 x 100	215 x 185 x 96,5 230 x 140 x 115	110 x 105 x 67	364 x 112 x 44	578 x 208 x 102

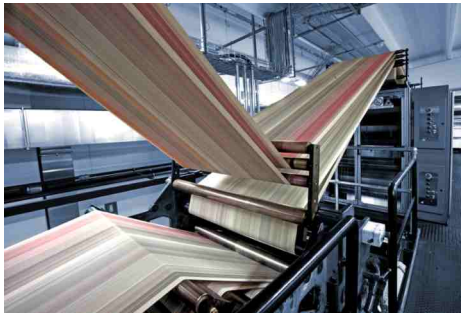
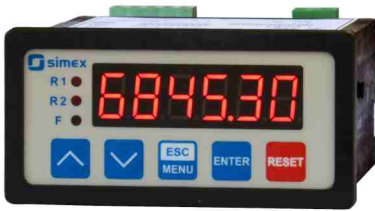
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# Electronic counters



- counting, programmable and reset inputs
- 1, 2 or 4 control outputs - relay or OC
- 24V DC sensor supply output
- RS-485 / Modbus RTU communication
- digital debouncing filter
- LED or LCD display
- panel or wall mounting



Counters

Counters are equipped with 1 or 2 independent counting inputs that can operate in various configurations (pulse or quadrature). Additional programmable input can change basic function of counting inputs (addition or subtraction of pulses from inputs, change the direction of counting) or hold counting without clearing. Counters feature an independent reset input, programmable multiplier, divider, offset and 1, 2 or 4 relay (or OC) outputs with programmable threshold, which can be used to control external equipment. Build in RS-485 communication interface enables controlling of all settings by host, and allows use of unit in advanced network systems.



	SLE-42	SLE-73	SLB-94	SLN-44	SLN-94	SLIK-73	SLIK-94	SLK-94T	SLIK-N118
<b>Outputs:</b>	REL	-	-	4	1 or 2	2	1	2 or 4	4
	OC	-	-	4	1 or 2	2	1	2 or 4	4
	24V DC	-	•	•	-	•	•	•	•
	12V DC	-	-	-	•	-	-	-	-
<b>Inputs:</b>	counting	1	1	1	1	1	2	2	1
	counter reset	1	1	3	1	1	1	1	2
	programmable	-	1	-	-	1	1	1	2
<b>Supply:</b>	lithium battery 3,6V	•	-	-	-	-	-	-	-
	AC: 24V / 110V / 230V	- / - / -	- / - / -	- / - / -	- / - / -	- / - / -	- / - / -	- / - / -	- / - / -
	AC: 100÷240V	-	-	-	•	-	-	-	-
	DC: 24V	-	-	-	•	-	-	-	•
	AC DC: 24V / 85÷260V	- / -	• / •	• / •	- / -	• / •	• / •	• / •	• / •
<b>Display</b>	LCD 7 x 8 mm	LED 6 x 9 mm	LED 6 x 13 mm	LCD 6 x 10 mm Blue STN	LED, double, 3 x 13 mm	LED 6 x 9 mm	LED 6 x 13 mm	LED 6 x 13 mm	LED 6 x 13 mm
<b>Case dimensions [mm]</b>	48 x 24 x 42,4	72 x 36 x 97	96 x 48 x 100	DC: 48x48x64 AC: 48x48x100	96 x 48 x 100	72 x 36 x 97	96 x 48 x 100	96 x 48 x 100	110 x 105 x 67

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# Ratemeters / Tachometers

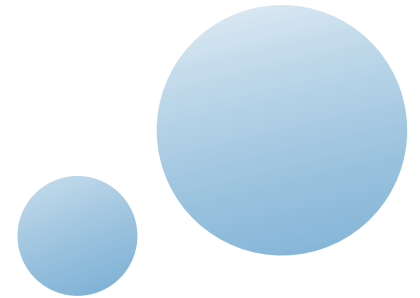


- pulse rate / period meter
- rotational / linear speed control
- revolution / movement period control
- 1, 2 or 4 control outputs - relay or OC
- 24V DC sensor supply output
- RS-485 / Modbus RTU communication
- panel or wall mounting



Counters

Ratemeters are designed to control rotational / linear speed, indicate pulse rate / period and display revolution / movement period. Available parameters of divider and multiplier enable flexible scaling of measure and transformation into linear speed. On top of that, they enable operation in the frequency and period meter mode, what allows to show e.g. material linear speed, baking time, drying time, revolution period. The ratemeters have 1, 2 or 4 relay (or OC) outputs, programmable depending on the instantaneous rotational speed / period and can be equipped with active current output. Main feature of the devices is high precision of measurement (0.02% in full temperature range).



	STI-73	STI-94	STI-N118
<b>Outputs:</b>			
REL	1	2 or 4	2
OC	1	2 or 4	2
24V DC	•	•	•
0-20 mA, 4-20 mA	-	•	-
<b>Pulse input</b>	•	•	•
<b>Supply:</b>			
AC: 24V / 110V / 230V	- / - / -	- / - / -	- / • / •
DC: 24V	-	-	•
AC DC: 24V / 85÷260V	• / •	• / •	- / -
<b>Display</b>	LED 6 x 9 mm	LED 6 x 13 mm	LED 6 x 13 mm
<b>Case dimensions [mm]</b>	72 x 36 x 97	96 x 48 x 100	110 x 105 x 67

Legend: „•” standard, „-” option unavailable

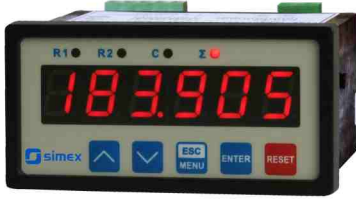


# Timers

- manual or remote reset
- large-size models available
- RS-485 / Modbus RTU communication
- brightness adjustment of the display
- panel or wall mounting



Counters



Timers are intended to measure precisely the time, e.g. in production cycles to check the operation time of machinery, equipment and production lines, and also to determine the time between repairs, guarantee time, wear degree, etc.

Signals from push-buttons or contactors of control devices are connected to the terminals placed on back side of the counter. Properly programmed counter allows to measure time period between „START” and „STOP” signals. Other configuration allows to measure the activity time of „START” signal. In addition the measure can be started, stopped and cleared using local keyboard (on front of the device) or via RS-485 interface. Apart from basic function of time counting, totalizer is also available. Built in relay outputs allow use of this counter for control in many time depend processes.



	STH-42	SLC-94	SLC-457	SWZ-W610
<b>Outputs:</b>				
REL	-	2	-	2
OC	-	2	-	2
sensor supply	-	24V DC/100 mA	24V DC/100 mA	24V DC/100 mA or 5V DC/50 mA
0-20 mA, 4-20 mA	-	-	-	-
<b>Inputs:</b>				
dry contact/OC/NPN	•	-	-	-
counter reset	-	•	•	-
start counting	-	•	•	-
stop counting	-	•	-	-
voltage	•	-	-	-
external sensor	-	-	-	temp., humidity, DCF77 receiver
<b>Supply:</b>				
lithium battery 3,6V	•	-	-	-
DC: 24V	-	-	-	-
AC DC: 24V / 85÷260V	- / -	• / •	• / •	• / •
<b>Display</b>	LCD 7 x 8 mm	LED 6 x 13 mm	LED 4 x 57 mm	LED 4 x 100 mm + 2 x 57 mm
<b>Case dimensions [mm]</b>	48 x 24 x 42,4	96 x 48 x 100	IP65: 215 x 185 x 96,5 IP67: 230 x 140 x 115	578 x 208 x 102

Legend: „•” standard, „-” option unavailable



## Level switches



- push-pull output
- small dimensions
- additional reference electrode
- 3 m wire length



Liquid sensor type **DRS-303** is designed for conducted liquid presence detection. Parameters of the detector have been fixed to allow detection of actual presence of liquid on its electrodes and to be resistant for low impedance conducted surfaces (eg. wet fingers). Additional reference electrode prevents detector against false signalling when liquid covers its surface only. PUSH-PULL output gives an opportunity for connection either to devices equipped with direct or inverse logic inputs.

Wide range of supply voltage (12 - 30V DC) and operation temperatures ( $-40^{\circ}\text{C} \div +85^{\circ}\text{C}$ ) allow to use the sensor in most systems (eg. pump dry run detection, full tank detection etc.)

## Angle sensors

- inclinometer with two orthogonal axes
- high accuracy, temperature compensated
- high resistance to vibrations
- precision internal accelerometer
- IP protection rate IP67



The dual axis inclinometer module **SCK-11** was designed to stationary measurements of inclinations of two orthogonal axes in relation to earth. Unit is equipped with software offset registers, which enable setting of relative zero position. In addition to two registers containing information about SCK-11 installation plane angle relative to the earth, there are available additional two records containing information on the accelerations in the same axes, what makes measurement of transducer movement more precision. This feature eliminates assembly errors, and allows user to measure difference between independent positions. Embedded temperature sensor measures ambient temperature of accelerometer, which allows to compensate its flow to angle measurement accuracy. Additionally temperature can be read as third measurement channel. Due to its tight aluminium housing, unit has high resistance to environmental conditions and mechanical damages.





# Temperature transmitters

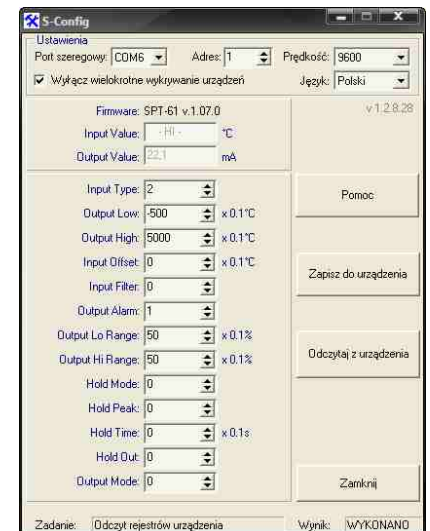
- fully programmable temperature transmitters
- universal measuring input
- DIN rail or in-head mounting
- in-built, programmable digital filter
- any temperature range within limits
- output linear with temperature
- powered directly from current loop



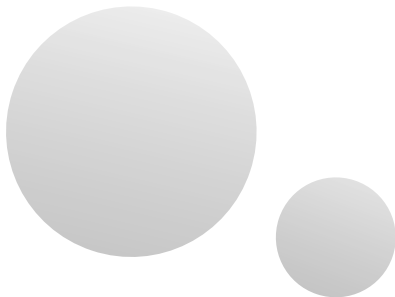
Sensors, Transmitters

The smart temperature transmitters can be very useful in different industrial applications requiring temperature conversion before following measurement and control. They are produced for in-head or DIN-rail mounting. These transmitters allow the user:

- to select sensor and input signal type,
- to select and adjust input range,
- to perform offset correction and device calibration,
- to specify input ranges and output type,
- to select output reaction on sensor break,
- to adjust the digital filter.



**S-Config**  
Software and drivers for temperature converter modules SPT-61 and SPT-86L.

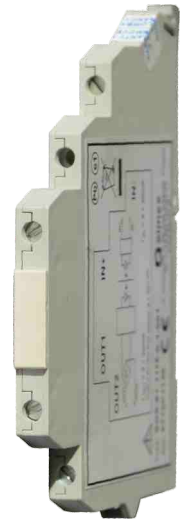


	SPT-61	SPT-86L	SPT-85-G
Power supply	24V DC (9,5 ÷ 36V DC)	24V DC (16 ÷ 30V DC)	8 ÷ 32V DC
Input signal	Pt100, Pt500, Pt1000	Pt100, Pt500, Pt1000; TC: K, S, J, T, N, R, B, E 0 ÷ 60/75/100/150 mV	Pt100, Pt1000, PTC; TC: K, S, J, T, R, B 0 ÷ 100 mV; 0 ÷ 10 V DC
Output signal	passive, max. 3,4 ÷ 24 mA	passive, max. 3,4 ÷ 24 mA; RS-485	4 ÷ 20 mA, 2-wires
Mounting	DIN rail (35 mm)	DIN rail (35 mm)	in-head

## Galvanic separators



- full galvanic isolation of 4-20 mA
- correction of characteristic
- thin DIN rail housing
- powered directly from current loop
- trim minimum current and slope of characteristic

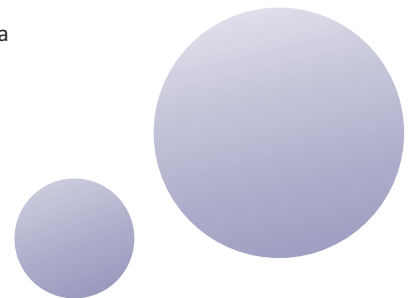


Separator **SGS-61** allows to input full galvanic isolation between transmitter and receiver of 4-20 mA current loop. Additionally it enables a possibility of connecting more than one receiver (e.g. two meters) with common ground in series in one current loop. Thanks to powering directly from current loop the device does not require any additional power supply, and full galvanic isolation allows using it in many applications with high requirements. Potentiometers which are available from the front, allow to trim minimum current and slope of characteristic, so the correction of whole current loop is possible.

The device was built into a very thin housing (6,1 mm) designed for DIN rail mounting, what gives a possibility of its easy application in existing and being assembled systems.

## Converters

- galvanic isolation between interfaces
- transmission rate control using RTS signal,
- programming mode signalling
- operation set-up signalling
- transmit and receive signalling



Separators / Converters  
Power supplies



The converter modules are used to connect devices with a built-in USB or RS-232 port to a RS-485 bus. The modules support any SIMEX devices equipped with a RS-485 standard port. The converter modules are intended to connect a PC computer to devices with a RS-485 interface in order to set up, test and service the devices.





# Power supplies

- universal AC input / full range
- protections: short circuit / overload / over voltage / over temperature
- DIN rail TS-35/7,5 or 15
- cooling by free air convection
- 100% full load burn-in test
- LED indicator for power on



Impulse power supplies are designed to be mounted on a DIN bus having a diameter of 35mm, in industrial automation systems, power engineering systems, industrial protection systems and also in security systems. They are characterised by their ergonomic design, high efficiency, broad range of working temperatures (-20°C to 60°C), general-purpose AC supply voltage in full range, and protection systems against short-circuits, overvoltage, overloading and thermal shock.

The narrow-type power supplies of the **SPX** family are used whenever it is required to minimise the amount of space occupied by a power supply on the DIN bus, e.g. in interphone systems or industrial electronics. They provide long-term and stable operation at 5-48V (depending on the type), and are equipped with signalling equipment to indicate correct operation.

Class II type DIN power supplies of the **SPS** family are intended for industrial automation, power engineering, industrial protection and security systems. They are characterised by having a mounting for a 35 mm - wide DIN bus. Virtually all output configurations are available (voltage, current).

The power supplies of the **SPS** family in metal case are equipped with 3-phase 4-conductor power supplies and feature constant frequency of impulse operation at 100 kHz. Two-phase operation is also possible. Cooling is carried out open circuit (without forced air circulation).



Separators / Converters  
Power supplies



	SPX	class II SPS	SPS in metal case
Output voltage	24V DC	24V DC	24V DC
Output rated current	1 A	1,5 A or 2,5 A	3,2 A ÷ 20 A
Output rated power	24 W	36 or 60 W	76,8 ÷ 480 W
Efficiency	84%	83% ÷ 86%	80% ÷ 89%

# Research and Development

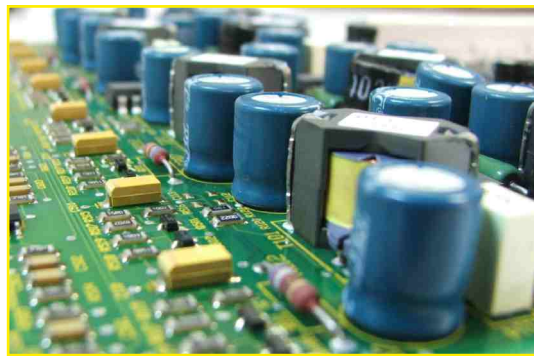


Research and Development Department of SIMEX Company consists of skilled engineers, mainly the graduates of the University of Gdansk, who are specialized in one of the following areas: Research and Testing, Equipment Development and Software Development.

This department is responsible for comprehensive implementation of the ordered projects: from an idea up to production implementation, and through close cooperation with the final recipient, both the functionality and hardware implementation of equipment corresponds exactly to its needs.

Proprietary system solutions, developed over the years of the activity of SIMEX Company, ensure reliable equipment operation, even in extremely adverse environmental conditions, while the used procedures to design the process allow to increase continuously the quality of the equipment designed. Documentation of designing works according to the requirements of ISO9001 standards ensures process repeatability and traceability of each phase.

Through an own research background in a form of EMC Laboratory, the products offered by us are fully in line with the requirements of the relevant standards, and the production process is subject to systematic checks of product conformity with type specifications.



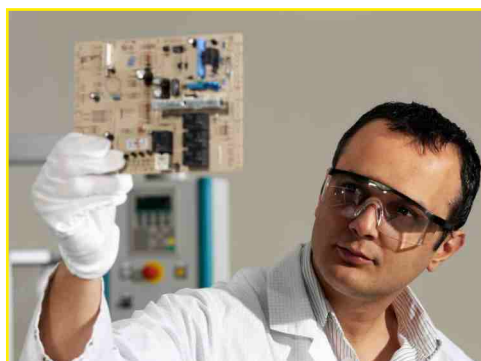
Individual teams within the Research and Development Department are responsible for the following phases of designing process:

#### **Equipment Development Team:**

- detailed design specifications (customer requirements, functionality, compatibility with standards),
- physical equipment design, its start-up and operational verification,
- planning of the sequence and engineering of the mounting, as well as completion of individual product blocks on production phase, and issuing of design and production documentation.

#### **Software Development Team:**

- development of firmware strictly according to the customer requirements,
- development of PC class software to support the equipment configuration,
- development of visualization and database software to integrate the equipment in operational test and measurement networks,
- modifications of existing software according to the customer's wishes.



#### **Research and Testing Team:**

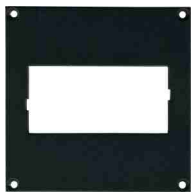
- analysis of requirements of the harmonised EU directives, depending on the use of the product and development of designing guidelines,
- examination of the conformity of equipment with the requirements of the relevant standards,
- operational testing,
- software testing,
- ongoing monitoring and verification of conformity of the manufactured equipment with the requirements applicable.

Design and production processes of our equipment are based on latest solutions from the field of microprocessor technology and SMT assembly, in result of which we can offer you modern products of high reliability.



## Accessories for meters, counters and recorders

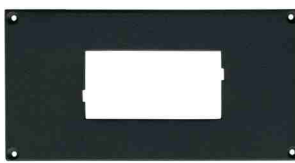
### Mounting plates



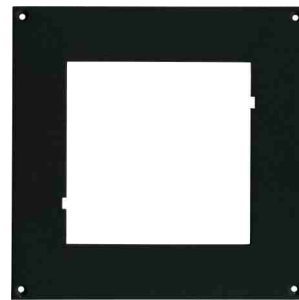
**SMP-99/94**  
to mount 96 x 48 mm  
size unit in a place  
of 96 x 96 mm cut-out



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

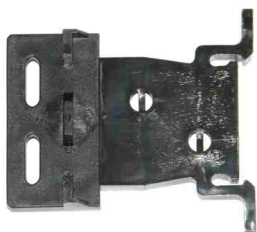


**SMP-147/73**  
to mount 72 x 36 mm  
size unit in a place  
of 144 x 72 mm cut-out



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

### DIN rail brackets



**SRH-94**  
TS-35 DIN rail brackets  
for 96 x 48 mm case



**SRH-99**  
TS-35 DIN rail brackets  
for 96 x 96 mm case



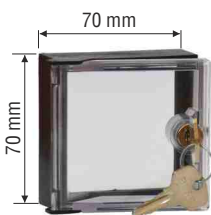
**SRH-141**  
TS-35 DIN rail brackets  
for 144 x 144 mm case

### Mounting brackets



**SPH-45**  
1 ÷ 45 mm panel thickness  
mounting brackets (2 pcs)

### Security door with lock



**STD-77**  
transparent IP 54 door  
with lock for 72 x 72 mm case



**STD-99**  
transparent IP 54 door  
with lock for 96 x 96 mm case



**STD-141**  
transparent IP 54 door  
with lock for 144 x 144 mm case

Transparent door with moulded frame acc. to DIN 43700, lockable with security key. Door and frame are made by injection moulding thus assuring an exact fit, an optimal choice of a material which is very strong and with no risk of corrosion; perfect seal-protective system IP 54 provided by all-round soft rubber sealing the moulding; door does not swing in or out sideways on opening.

### Remote controller SIR-15



InfraRed remote controllers may be used as external programming keyboard for all SIMEX devices equipped with IR receivers and remote programming functions. Pressing of any local IR controller key, causes transmission of it's code to the device. Functions of particular keys depend on devices features.

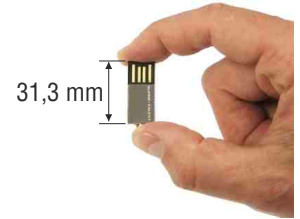


# Accessories for meters, counters and recorders



## USB memory

The mini USB memory stick is incredibly small and stylish flash drive offering up to 8GB data storage. Measuring merely 31,3 x 12,4 mm, the mini USB drive is ideal for transporting data and fits inside optional lockable door STD-99. 2, 4 and 8 GB memory sticks available.



## Portable case P130

Portable transporting case, made by PELI, with 1, 4 or 8 input sockets for mounting CMC-99 or SRD-99 data recorders. It is useful in situations where there is no possibility of safely mounting a typical controller / recorder. Case is very durable, has IP 65 protection class. On the side of case there are multipin sockets for connection of sensors and interfaces, according to customer needs.

## www service



The access to product offer of our company becomes simple as never. The customer has the possibility, via the website, to make the equipment configuration by itself and send it for cost calculation, which allows much faster contact with the Customer and much effective realization of orders and inquiries.

SRP-94

Other products in this category: SRP-94

Meter with large, readable display, with current-voltage or mV input, with 2 or 4 relay (or OC type) outputs. The version without relay outputs is also available.

enlarge

Parameters Gallery Download Option configurator

Option configurator

Product code: SRP-94-1C33-1-4-011

Input: 0-20 mA, 0-15V, 0-2-10V

Input: 0-50/75/100/150 mV

Output: no output

Output: 2 x REL

Output: 2 x OC

Output: 2 x REL + current output

Output: 2 x OC + current output

Output: 4 x REL

Output: 4 x OC

Communication interface: RS-485

Power supply: 24V AC/DC

Power supply: 85V - 280V AC/DC

Options: no options

Options: IP 65 frame

Add to query

All the tools and instructions offered by our company you may download by yourself from our website [www.simex.pl](http://www.simex.pl). There you will find both the versions of freeware offered by us (including configuration of equipment provided with Modbus RTU communication interface), and the demos of paid DAQ Manager type software.

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inquiry@simex.pl  
info@simex.pl

Measurement & Control

Recommended products

- MultiCon CMC-141
- SWE-73-L
- SWI-94

72 analog / digital

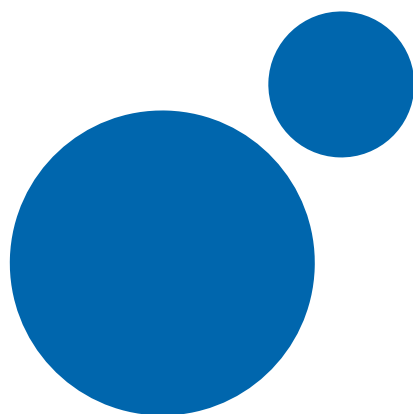
Events

- NEWS! 48x24mm electronic counters with LCD display!  
We are delighted to announce the launch of 48 x 24 mm electronic LCD counters and hourmeters, battery powered version. [more](#)
- NEWS! 48x48mm electronic counter with LCD display!  
We are pleased to announce the launch of 48 x 48 mm electronic LCD counter which enlarges Simex counters range portfolio. [more](#)
- SWI-94 new features!  
We are pleased to inform you that our SWI-94 weight meter has been upgraded and contains the following new features. [more](#)
- NEWS! Volume characteristics of cylindrical tanks  
We are pleased to announce that we have recently added to Simex meters range a new feature, the volume characteristics of cylindrical tanks. [more](#)

Publications

- Article: "MultiCon = Meter + Controller + Recorder + HMI in one package" part III  
In the previous articles we presented the device design and options of presentation of results and operation using the touch panel. To have a full picture of huge potential of MultiCon, now we will focus on processing measurement data, control functions and possibilities of cooperation in network systems. [more](#)
- Article: "MultiCon = Meter + Controller + Recorder + HMI in one package" part II  
In the previous article we presented a concept and features of the MultiCon series devices and the outline of their possibilities obtained as a result of well developed software and a modular design. This part will describe other advantages, including simple operation and configuration using a TFT with a touch screen, a thing well know from such devices as smartphones or tablets. [more](#)
- Article: "MultiCon = Meter + Controller + Recorder + HMI in one package" part I  
The MultiCon series devices are advanced meters, controllers and recorders closed in one compact case. They have been designed for both advanced and less demanding applications in industrial automatic control engineering. They feature a colour TFT display with a touch screen (3.5 or 5.7 inch, depending on version). Such a GUI is a pleasure to work with, and the operation of the MultiCon playing the HMI role is intuitive and comfortable. [more](#)

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