

## Set Point Simulator / Set Point Transmitter Handheld case

**SG100**

### Characteristics:

- Current output 0...22mA
- Voltage output 0...20V
- Frequency output 0...1kHz / 0...20V and RS422
- Linearity error < 0,02%
- Illuminated LC-Display
- 6 button operation
- Handheld case with battery compartment
- Powered by 9V battery or power supply unit
- High reliability, 5 years warranty



### Description:

The devices of the series SG100 have been developed for the setting of norm signals and square wave frequencies.

Via 6 buttons and an illuminated LC-display voltages from 0...20V or currents from 0...22mA are continuously adjustable with a resolution of 1mV resp. 1µA. Furthermore square wave signals with frequencies from 0...1 kHz and adjustable amplitude from 0...20V resp. RS422 level can be simulated. Via two terminals, red (+) and black (-) the set value can be picked off. On top side, next to the terminals, there is a button for switching the unit on or off. To avoid an unintentional switching-on of the simulator, this button is recessed in the housing. For the voltage supply a 9V block-battery (not included) or a power supply unit 5...9Vdc (included) is required. The simulator is delivered, together with the power supply unit, in a practical plastic case, which is used for the optimal storage and protection of the unit.

### Setting of the value:

By pushing the mode- button ● (MODE) you can choose the operating mode. Is the desired function found, so confirm with button ■ (↵).

With buttons ◀, ▶, ▼, ▲ the desired output value will be set. For controlling it will be displayed in the bottom line of the display. To finish the input and to update the output value button ■ (↵) has to be pushed. The new value will be indicated in the top line of the display.

If the frequency simulation is set, then after selection of the function, automatically the input to the height of the desired voltage level is done.

### Application:

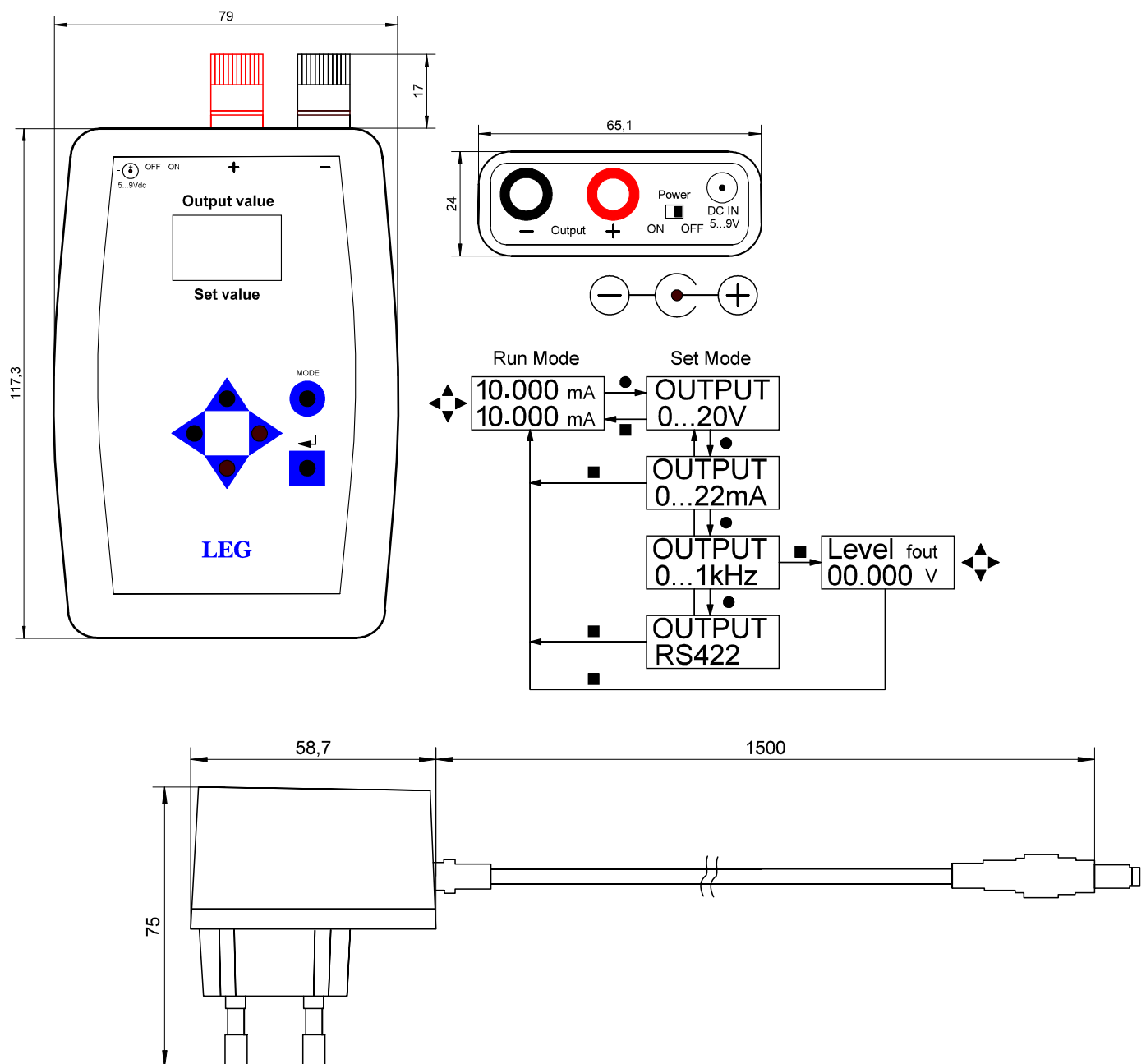
Setting of a norm signal during startup of an industrial plant for example for adjustment of a transducer.

Simulation of RS422 signals.



Because the device has a high power consumption of approx. 1,8 W, the operating life in battery mode is only a few hours. We recommend, for longer use, to use the power supply unit which is included in the scope of delivery.


Menu output	Function	Signal level	Resolution
0...20 V	Output of a voltage value	0...20 V	1 mV
0...22 mA	Output of a current value	0...22 mA	1 $\mu$ A
0...1 kHz	Output of a square wave signal	0...20V	1 Hz
RS422	Output of a RS422 signal	RS422(max $\pm$ 2,5V)	1 Hz
<b>Taste</b>			
● MODE	Change to function selection		
■ ↵	Confirming of the selection		
◀	Cursor to the left		
▶	Cursor to the right		
▲	Value up		
▼	Value down		



## Technical data

### Auxiliary power:

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Supply voltage	:	5...9V DC	
Current consumption	:	1,8 W	
Battery	:	9V block	
Power supply unit	:	5...9V DC	

### Analog Output:

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Voltage output	:	0...20 V / max. 20mA
Current output	:	0...22 mA load resistor max. 1kΩ <21mA / >21mA, 900Ω
Load resistance error	:	< 0,01 %
Ripple & noise	:	<10 mV
Output	:	selectable

### Frequency output:

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Frequency	:	0...1 kHz
Signal type	:	square wave
Output level	:	0...20V resp. RS422 (±2,5V) / max. 20 mA
Accuracy	:	± 0,1Hz

### Accuracy:

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Linearity error	:	< 0,02%
Resolution	:	1mV, 1μA, 1Hz
Temperature coefficient:	:	< 0,01% / K

### General data:

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Operating temperature	:	0...50°C
Storage temperature	:	-25...+85°C, condensation before putting into operation is not allowed
MTBF	:	115 years Mean Time Between Failures – according to EN 61709 (SN 29500). Requirements: Stationary operation in clean rooms, average ambient temperature 40 °C, no forced ventilation, continuous operation
CE conformity	:	EN 61326-1, EN 61000-4-2/3*/4/5/6*, EN 61000-6-4 * during measurements small deviations are possible

### Body:

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Dimension	:	79 x 117 x 24mm (without terminal post)
Material	:	ABS black
Protection category	:	IP20
Anschluss	:	2 x terminal post
Weight	:	125g

## Technical data power supply unit

### Input data:

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Supply voltage	:	90...264V AC / 47...63 Hz
Power consumption	:	8,5W

### Output data:

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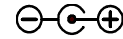
Output voltage	:	9 V DC / min. 0mA / max. 670mA
Power output	:	6 W

**Body:**

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Dimension : 58, 5 x 26 x 75 mm

Connection : DC plug 2, 1 x 5, 5 x 10mm / wire length 1500mm



Weight : 70g

**Note on safety:**

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Disconnect the power supply before attempting to open the unit.

During the operation of this module it is possible that parts of the module, even there is extra-low voltage, (for example shunt measurement) are under dangerous voltage! Therefore a non-observance of this caution may cause damage of property or physical injury.

Only trained qualified personnel should install or operate the unit. Before installation the qualified personnel should read the documentation and should familiarize themselves with the unit.

If there is visible damage to the body of the unit it should be immediately replaced and not put into operation.



Please ensure that there is a sufficient prevention against electrostatic discharge during installation of the unit.

**Installation Information:**

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Pay attention and make sure the unit is far away from mounted sources that may disturb the device such as magnetic coils, transformers, frequency converters etc.

**Wiring advice:**

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Use only shielded cables. The shield is to be connected extensively to ground. Do not mix power- and signal-wires/cables in the same cable tray.

**Limited warranty:**

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The LEG Industrie-Elektronik GmbH warranted that the product does not have any material or processing defects in a period of 5 years after date of delivery.

It is up to the choice of LEG to repair or to exchange an inoperative unit.

Subsequent damages or any claim for indemnification above the functionality of the unit are excluded.

This limited warranty is only valid if ...

1. the product was installed and put into operation according to the LEG operation documentation;
2. the technical configuration of the power supply was abided;
3. the product was not used for unintended purposes;
4. there were no unauthorized modifications or manipulations, misuse or repairs without previous agreement from LEG .

Our Terms of Trade are based on the "General Conditions for the supply of products and services of the Electrical and Electronics Industry" including the "Complementary Clause: Extended Reservation of Property" of the ZVEI e.V. (German Association of Electrical Manufacturers).

**Miscellaneous:**

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We expressly reserve the right, without previous notice, to correct errors contained in any data of this information brochure, and to make alterations to the program and technical modifications.