



Application range

- Support for an optimal laying of loops and loop control
- Loop diagnosis:
 - L-meter
 - Ohm-meter
 - Frequency
 - Frequency change (sensitivity measuring)
- Pre-attenuation measuring

Features

- Menu-assisted operation
- Easy handling
- Battery or line operation
- Support for an optimal laying of loops and loop control
- Measuring partly parallel to detector operation
- Logging of data via printer or terminal programm
- 2 year warranty

Function description

With the loop diagnosis unit SDG2000 all necessary measured values of a loop can be determined. Apart from the usual measurements such as inductance, loop resistance and alignment frequency, the measuring instrument also enables special measurements (e.g. measurement of pre-attenuation).

For an optimal adjustment of the loop detectors, frequency change at a loop can be measured. The SDG2000 adjusts itself to the loop attached and displays the frequency change (difference of current frequency value and adjusted value) when the loop is attenuated by a vehicle. Values can be displayed as absolute or proportional numbers. Additionally, the SDG2000 displays the Ohm's resistance of a loop. The Ohm-meter can be adjusted to the attached measuring cable.

With the help of the provided loop board the pre-attenuation of the loop underground can be determined. Measurements parallel to a detector in function are also possible (see external measurement).

With each laying of a loop, these three important measured values of a loop should be recorded:

- resistance of loop with feeder cable (in Ω)
- inductivity of loop (in μH), optimal value (80 - 300) μH
- insulation resistance (in $\text{M}\Omega$), in new installation at least 10 $\text{M}\Omega$ (with 500 V)



Calibration

To ensure measuring accuracy, the SDG 2000 should be calibrated annually by the manufacturer!

Supply voltage:	230 V + 6% / - 10%
Power consumption:	max. 10VA
Operational temperature:	0 °C - 50 °C
Measuring range:	
Ohm-meter:	(0 Ω - 90 Ω) in 0,1 Ω steps
L-meter:	10 μH – 1000 μH , in 0,1 μH steps
Alignment frequency:	18 kHz - 75 kHz, in 1Hz steps
ext. frequency measuring:	15 kHz - 80 kHz, in 1Hz steps
Measuring tolerances:	
Ohm-meter:	$\pm 1 \Omega$
L-meter:	10 μH – 50 μH $\pm 1 \mu\text{H}$, 50 μH – 1000 μH $\pm 2 \%$
Alignment frequency:	$\pm 0,5 \%$
ext. frequency measuring:	$\pm 0,5 \%$
Charging time (on empty batt.):	approx. 14 hrs.
Running time w/ full batteries:	min. 1,5 hrs.
Connections:	
front side:	2 measuring sockets
back side:	1 line-in, 1 RS232 intraface
Interface:	RS232, parameters adjustable
Insulation:	Safety class I (protective conductor connection)
Weight:	unit: approx. 3.0 kg; complete with case and equipment: approx. 7.9 kg
Enclosure dimensions:	approx. (168*110*233) mm (wide * tall * deep)
Case dimensions:	approx. (455*150*330) mm (wide * tall * deep)
Included in delivery:	test connector cable, tapping terminal, reference loop, line-in cable, instruction manual, unit case
□ Technical Data / Conformity	
Security / Health	Norm 73/23/EWG
EMV:	Norm 89/336/EWG
Radio transmission:	not applicable