

# MiniLog2

**weilekes  
elektronik**

Measuring Equipment for  
Cathodic Protection

**Data Logger  
GPS Interrupter  
DCVG and CIPS**



## Software



WinLog 2.0

## GPS Time + Position



## DCVG / CIPS Kit



## Slave Relay 50 Amps



## Coupon Measuring



## Fixed Mounting Kit



March / 2012

## Data Logger + GPS Interrupter + DCVG / CIPS Survey

2-Channels (DC + AC = 4 values) · Built-in AC filters · Microvolt · 1 000 samp./s · 1 300 000 Values  
Built-in 15A mechanical or 18A electronic Relay · Chargeable Li-Ion 30 days battery life · Waterproof IP68

www.weilekes.de

# MiniLog2

## Data Logger GPS Interrupter + DCVG Survey



### General

The new MiniLog2 is a waterproofed universal measuring instrument with LCD and keyboard designed for CP measurement tasks. Used in data logger mode, the MiniLog2 samples for both channels DC and AC simultaneously. In interrupter mode, the built-in relay switches

fully GPS synchronized for interrupting not only rectifiers, but coupons for IR-free potentials. Finally with survey mode, the MiniLog2 is able to make DCVG and CIPS surveys while storing the GPS position for every measuring point taken.

### Data Logger with Microvolt Measurement

Two channel sampling, each with DC and AC measurement, resulting in 4 values simultaneous measured per sample. Both DC channels got microvolt resolution and have active filters built-in to prevent low AC frequency interference. The MiniLog2 is able to sample up to 1 300 000 values. This results in up to 20 min. sampling time even when measuring in "high-speed mode" (= 1000 measurements / second). The built-in USB connector allows galvanically isolated data transfer and charging via USB.



### GPS Synchronisation and GPS Position

The optional Garmin GPS receiver allows synchronisation of the MiniLog2 time and date. Using the MiniLog2 as data logger in DCVG survey mode, the GPS positions are automatically stored beside each value.



### Miniaturized GPS Interrupter with Rechargeable Battery

The MiniLog2 has a mechanical 15A / 60V relay built-in for switching of rectifiers, flanges and coupons.

Optionally a version with built-in electronic relay 18A / 60V is available. Via the keyboard and the LCD a switching cycle resolution of 0.1s is configurable by the user. In addition, night and weekend savings are selectable. The rechargeable Li-Ion battery allows GPS synchronised switching for 30 days without recharging. For fixed installations in rectifier housings an USB mains supply and fix mount can be used. To increase the switching power even more, miniaturized external slave relays for MiniLog2 are available with 50 Amps and 100 Amps.



### DCVG and CIPS survey with Google® Maps presentation

Like with an analogue multi-meter, MiniLog2 shows the DCVG voltage difference in a bar graph for quick recognition. With a simple press of the „OK“-button mounted on the electrode, the DCVG value and the related GPS position are stored and the survey continues. In the same way potential (CIPS) and/or voltage gradient measurements can be done. The survey path and the defects can be directly presented graphically with Google Maps and the WinLog 2.0 software.



### Coupon Measurement with MiniCoup

For measuring IR-free potentials on a coupon, MiniLog2 can sample and interrupt simultaneously. For accurate sampling of the complete off depolarisation curve, MiniLog2 is able to measure 1000 samples/s for one channel for up to 20 min time.

Optionally with the „MiniCoup“ adapter and its built-in 10 Ohm shunt, the MiniLog2 samples every second for up to 24h. By just connecting pipe, electrode and coupon with the adapter sockets, On and Off potential and DC and AC current are collected simultaneously.



# Accessories + Technical Data



## MiniLog2

Data Logger, GPS switcher and DCVG incl. USB cable, 110 / 230 V charger and 12 / 24 V USB charger

Item-No. 130 111 (mechanical relay)  
Item-No. 130 121 (electronic relay)



## Combined Device and Accessories Bag

Especially designed for the MiniLog2 system

Item-No. 130141



## GPS Receiver

With cable, fitting and connector for direct mounting

Item-No. 130131



## GPS Antenna extension

5m, with clip and bush

Item-No. 160191



## Metal Carrying Kit

For DCVG / CIPS survey with "Sprint" carrying strap and OK push-button

Item-No. 130161



## DIN Rail Kit

For fixed installation in a rectifier housing

Item-No. 130171



## MiniCoup

Adapter for coupon measurement  
( $P_{On} + P_{Off} + I_{DC} + I_{AC}$ )

Item-No. 130201



## Powerswitch LS50

Electronic slave relay  
50 Amps / 60 Volt  
Mains and Battery operated

Item-No. 140201

Measuring channels :	2 (DC + AC parallel = 4 values)
Measuring range and resolution:	$\pm 100 \text{ mV} / 1 \text{ }\mu\text{V}$ (only DC) $\pm 10 \text{ V} / 0.1 \text{ mV}$ (DC + AC) $\pm 100 \text{ V} / 10 \text{ mV}$ (DC + AC)
Input impedance:	10 M $\Omega$ (250 K $\Omega$ for Microvolt)
Maximum sampling rate :	1,000 samples / s 10 samples / s (with filter)
Low pass filter :	16,6 Hz > 60 dB (Factor 1,000) 50,0 Hz > 100 dB (Factor 10,000)
Recording capacity :	1,300,000 sampling values and 10,000 DCVG/CIPS measurements
Switching cycle: In	0.1s steps, user configurable
Switching power:	Mechanical relay 15A / 60V Electronic relay 18A / 60V
External Slave Relay:	LS50 50A / 60V LS100 100A / 60V

Power supply:	Lithium-Ion battery 3.6V / 1900 mAh Charged with USB power supply
Synchronisation:	GPS and manual or external (Master / Slave)
Time accuracy:	< 10 ms / 24h with GPS synchronisation
Battery time	
Data Logger mode:	10 days with 0.5s sampling rate 20 weeks with 60s sampling rate
Interrupter mode:	30 days with 4/2 and GPS synchronisation
DCVG / CIPS survey mode:	20 hours with continuous GPS position
Dimension:	148 x 68 x 42 mm
Weight:	350g





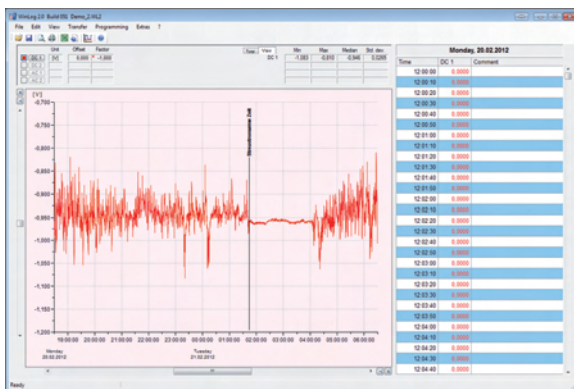
# WinLog 2.0 Data Logger Software

The software WinLog 2.0 for the evaluation of data loggings is especially designed for the new MiniLog2.

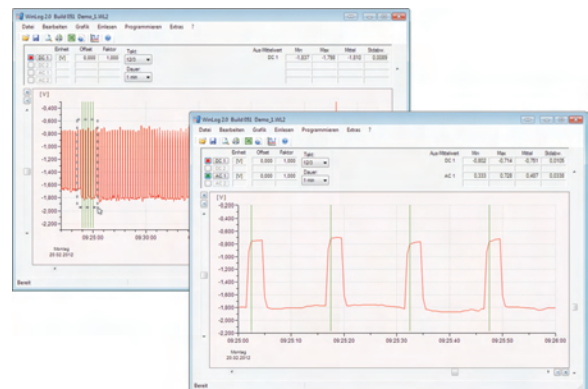
Beside the easy transfer of the samplings via USB to the PC, the WinLog 2.0 software supports 4 channel data evaluation with statistic (max, min and median building) and comprehensive printing features.

For the DCVG and CIPS evaluation WinLog 2.0 with an internet connection allows the instant presentation of the survey path together with the location of the defects.

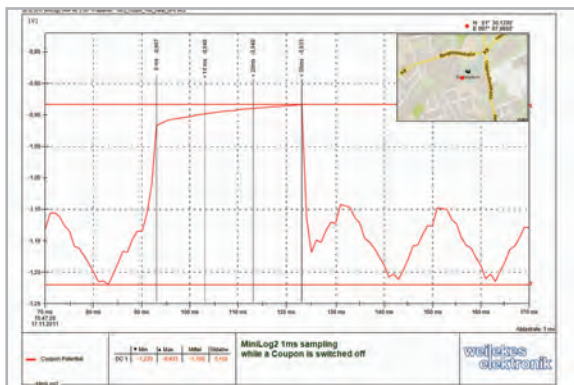
WinLog 2.0 supports the previous MiniLog 128/512 and works with Windows® XP, Vista and Windows® 7 (32 / 64 Bit)



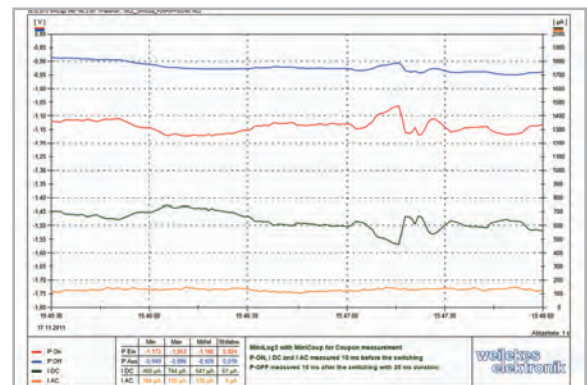
Stray current sampling during 24h



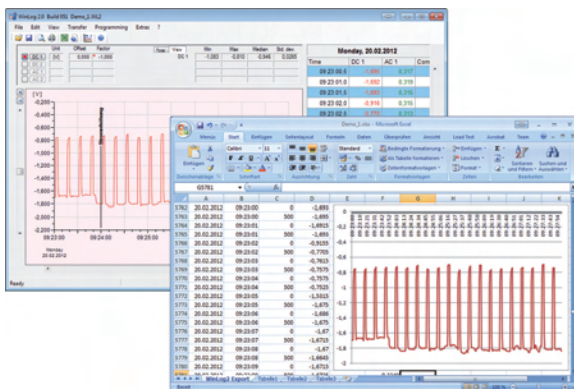
Median values of the Off-Potential with on screen mouse zoom



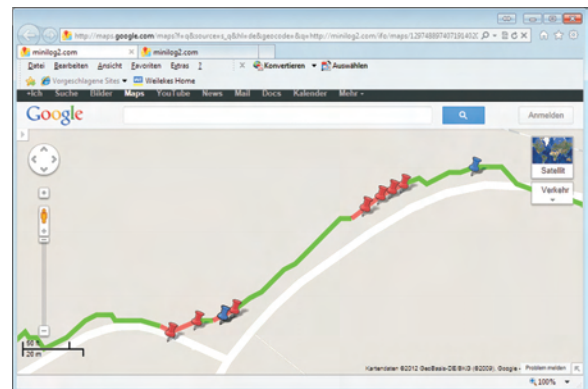
Print Coupon switching with 1ms sampling rate



Print 24h Coupon measurement with  $P_{ON}$ ,  $P_{Off}$ ,  $I_{DC}$  and  $I_{AC}$



Built-in export feature for Microsoft® Excel®



DCVG measurement export to Google® Maps for defect localization