

# LOGGING VOLTAGE AND CURRENT READBACK VALUES WITH THE ROHDE & SCHWARZ LOGGING AND CHARTING TOOL

Sporadic events and errors may occur when developing new measurement instruments and need to be taken into account in all design stages and analyses. The Rohde & Schwarz power supplies can precisely capture such sporadic events and errors.



## Your task

Rapid advances in technology have had a positive impact on the world, enabling both large and small scale connections and the development of ever smaller and smarter devices. When a technology evolves, components do too (including batteries). As devices get faster and more complex, error potential also increases. Optimizing power consumption and capturing small errors in the design stage are crucial for device development and functionality. Accurate power consumption characterization in different operating modes and the precise capture of irregular events are vital.

## Rohde & Schwarz solution

Rohde & Schwarz has an easy and affordable solution. Rohde & Schwarz DC power supplies are high-precision sources with standard and fast logging features. The standard logging tool records voltage, current and power timestamps and readings for each available channel. Fast logging is only available with the R&S®NGM/NGU, which records voltage and current readings versus time but without timestamps. In sink mode, the logging and charting tool also helps log sink modes for the R&S®NGL/NGM/NGU power supplies.

## Resolution and duration

Rohde & Schwarz power supplies have resolution down to 2  $\mu$ s for accurate measurements that easily meet current device requirements. The R&S®NGU201/NGU401/NGA100 also have high current measurement resolution and accuracy.

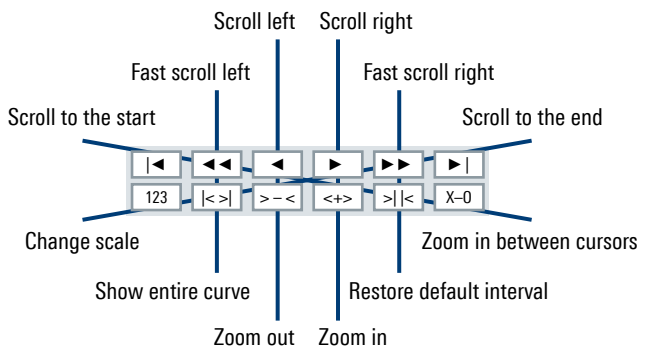
Standard and fast logging modes can run for a specified duration that is only limited by hard disk drive (HDD) capacity.

## Live chart

The innovative live chart layout has easy-to-use functions and a tool for in-depth analysis and readily available data.

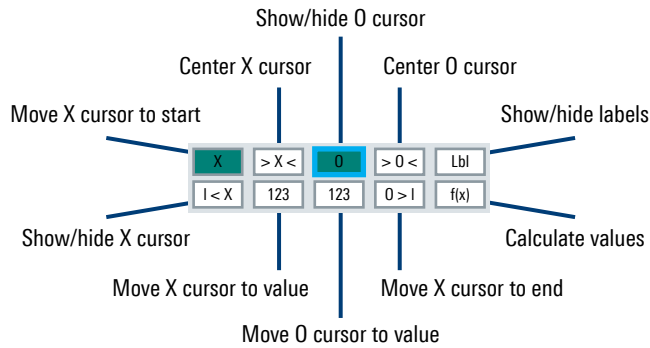
## Scrolling and zooming

Versatile options are available to scale the abscissas, ordinates and the axis of the chart.



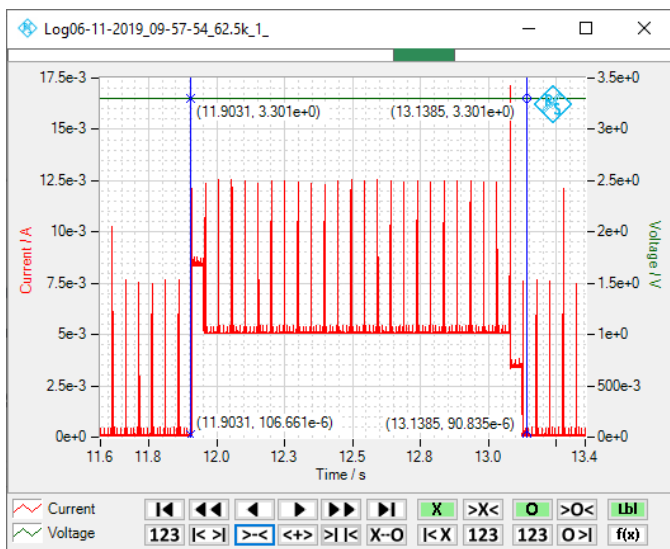
## Available cursors

Two cursors have optional value labels.



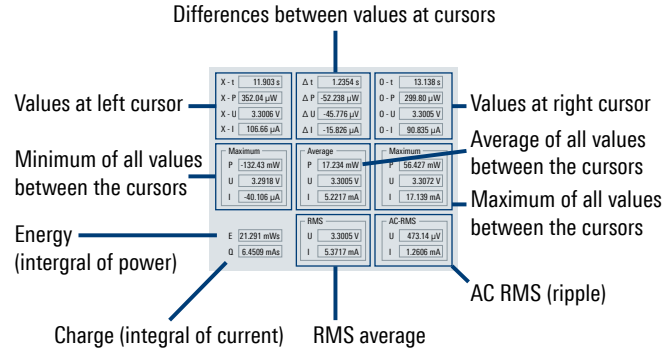
## Rolling chart

The chart continues on the time axis even after the specified time has passed.



## Live statistics

Live calculation of maximum, minimum, average, RMS and AC RMS values can be displayed.



## Summary

Rohde & Schwarz power supplies fully meet high-precision power consumption measurement requirements. They measure a wide dynamic range of current levels and are highly accurate, even at extremely low voltage and current levels. Together with the charting tools, the power supplies are perfect for optimizing power consumption and capturing sporadic events.

## See also

<http://www.rohde-schwarz.com/appnote/1GP122>

Designation	Type	Order No.
Single-channel power supply	R&S°NGM201	3638.4472.02
Two-channel power supply	R&S°NGM202	3638.4472.03
Single-channel power supply	R&S°NGL201	3638.3376.02
Two-channel power supply	R&S°NGL202	3638.3376.03
Two-channel power supply, 400 W, 32 V/20 A	R&S°NGP802	5601.4007.05
Four-channel power supply, 800 W, 32 V/20 A	R&S°NGP804	5601.4007.02
Four-channel power supply, 800 W, 2 × 32 V/20 A, 2 × 64 V/10 A	R&S°NGP814	5601.4007.04
Two-channel power supply, 400 W, 64 V/10 A	R&S°NGP822	5601.4007.06
Four-channel power supply, 800 W, 64 V/10 A	R&S°NGP824	5601.4007.03
Two-quadrant source measure unit	R&S°NGU201	3639.3763.02
Four-quadrant source measure unit	R&S°NGU401	3639.3763.03
Two-channel power supply, 66 W, 32 V/3 A	R&S°NGE102B	5601.3800.02
Three-channel power supply, 100 W, 32 V/3 A	R&S°NGE103B	5601.3800.03
One-channel power supply, 35 V/6 A	R&S°NGA101	5601.8002.02
One-channel power supply, 100 V/2 A	R&S°NGA141	5601.8002.03
Two-channel power supply, 35 V/6 A	R&S°NGA102	5601.8002.04
Two-channel power supply, 100 V/2 A	R&S°NGA142	5601.8002.05

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PD 3684.0253.92 | Version 01.00 | April 2023 (st)  
Logging voltage and current readback values with the Rohde & Schwarz logging and charting tool  
Data without tolerance limits is not binding | Subject to change  
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