

Ripple Control Receiver SRcheck

The SRcheck is a state-of-the-art ripple control receiver of the newest generation for field diagnosis and measurements. It registers all ripple control signals received including their voltage levels. Loaded with the controller's time schedule, the SRcheck can be used as a remote monitoring device with the possibility to alert service personnel.

Features

- Three-phase measurement input
- Digital filtering of ripple control signals through micro controller
- Compatible with all telegram systems commonly used (incl. DIN 43861-301)
- Swistra functionalities (option)
- Reaction on loss and return of power individually programmable
- 3 arbitrary potential free outputs with optical status indication (LED)
- Interfaces: USB, Ethernet, RS232, microSD card
- Analogue voltage output 0-10 V (option)
Under frequency detection



Outputs

The SRcheck disposes of 3 potential free programmable outputs. According to the requirements, each received ripple control signal pulse or the 3s DECABIT pulse can be acknowledged. Furthermore, the measurement entry can also be used to detect a loss of power, for example with subsequently activated output contact to initiate alerting.

The outputs are equipped with semiconductor relays and are therefore wear-free, non-dissipative and do not jitter.

The status of each output contact is optically indicated through LED.

Programming

The programming is done via a serial interface.

All functions and settings are programmed via a special application running on a PC or laptop.

Diagnosis and measurements

Each received ripple control telegram is sampled at a rate of 5 kHz and memorized. In addition, the voltage level of each telegram is memorized. According to the memory size of the microSD card the data of all ripple control telegrams up to one year can be registered.

Via the several interfaces on the receiver the registered data can be read out and analysed, or it can be processed further using MS Office. The RS232 and Ethernet interfaces are ideal for remote supervision and remote readout, the USB interface is for easy programming and onsite analysis.

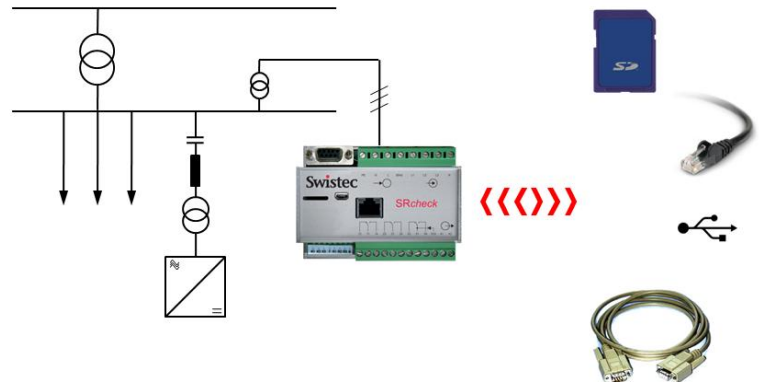
With an implemented time schedule (according to the controllers time schedule), the receiver can compare and thus monitor the correct transmission of each ripple control telegram. Should a telegram fail or be missing, the receiver can activate an output contact to initiate alerting

Technical Data

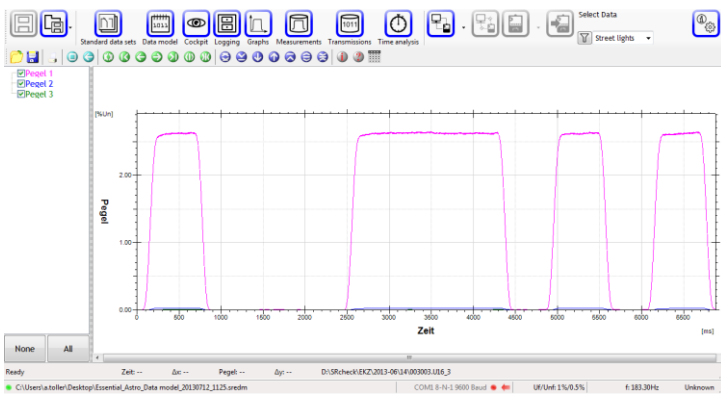
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Power Supply:	<ul style="list-style-type: none"> Mains voltage Frequency range of mains voltage Power consumption (supply) Power consumption (measurement) Surge voltage resistance Terminal sizes 	<p>100 ... 230 VAC (-15% ... +15%) 47 Hz ... 63 Hz < 5 W 12 mVA / 5 mW 4 kV 1.2/50 μs accord. IEC 60060-1 Supply and relays 1 x 0.2 ... 2.5 mm² or 2 x max. 1.0 mm²</p>
Filter data:	<ul style="list-style-type: none"> Operating frequency Operating voltage Non-operating voltage Maximum control voltage Voltage at measurement entry Sampling rate Swistra functions 	<p>110 – 2000 Hz / programmable $U_f \geq 0.3\% U_n$ $U_{nf} \geq 0.1\% U_n$; $U_{nf} < U_f$ 8-15 times U_f (depending on frequency) 85 ... 264 VAC 5 kHz / 0.2 ms Available, optional</p>
Output data:	<ul style="list-style-type: none"> Number of relays Number of outputs Nominal switching voltage U_c Nominal switching current I_c Optical indication Voltage output (optional) 	<p>3, semiconductor type, bistable 1 change-over contact each, free of potential 230 V, 50 Hz (max. 247 VAC / 350 VDC) 120 mA (350 mA / 10 ms) LED 0 – 10 V (equal to 0 – 10 % signal voltage level)</p>
Readout:	<ul style="list-style-type: none"> Interfaces microSD 	<p>USB, Ethernet, RS232 512 MB ... 2 GB, min. class 4 required</p>
Resistance to climate conditions:	<ul style="list-style-type: none"> Operating temperature Storage temperature 	<p>-20 ... +60°C -30 ... +60°C</p>
Design:	<ul style="list-style-type: none"> Protection Size (height x width x depth) 	<p>IP 54 76 x 100 x 60 mm</p>

Application example:



Analysis with SRAnalyzer Software



Intelligent Energy Management Systems
 Ripple Control | Smart Solutions | Transformers

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