

## Ripple Control Receiver SReeg

The SReeg is a state-of-the-art ripple control receiver of the newest generation for DIN rail mounting. With its four relays (each with a 2 A gold coated contact) the SReeg is ideal for switching ultra low currents and voltages. Thanks to its tiny casing mounting is easy even where the available space is very limited.

### Features

- 4 relays, each with a 30 VDC / 2 A gold coated contact
- Indication of relay switch positions via LED
- Optical interface in accordance with IEC 62056-21 for parameterization, ripple control signal analysis and protocol evaluation
- DIN-rail mounting in accordance with DIN EN 60715 possible
- Compatible with all telegram systems commonly used (incl. DIN 43861-301)
- Swistra functionalities (option)
- Underfrequency detection
- Reaction on loss and return of power individually programmable
- Time Program Functions
- Network wide clock synchronisation

### Technology

All Swistec ripple control receivers use state-of-the-art, recently developed filter algorithms capable of reliably processing ripple control signals with operating voltages below 0.3%  $U_n$  – a result of state-of-the-art processor technology combining high CPU power with little power consumption

### Time Program Functions

- Internal clock (remotely synchronized) for autonomous operation of up to 8 work schedules with 15 switching times each
- Free assignment of work schedules to the relays
- Real-time clock with super-cap (option), voltage interruptions can be bridged for a minimum of 48 hours



# Technical Data

Right of any modification is reserved / Release 2.0

<b>Power supply:</b>	<ul style="list-style-type: none"> <li>Mains voltage</li> <li>Frequency of mains voltage</li> <li>Power consumption</li> <li>Surge voltage resistance</li> <li>Terminal sizes</li> </ul>	230 VAC (-20% ... +15%) 50 Hz (-2% ... +1%) < 1 W / 10 VA cap. 8 kV 1.2/50 $\mu$ s accord. IEC 60060-1 Supply and relays 1 x 2.5 mm <sup>2</sup> (AWG 22-12)
<b>Filter data:</b>	<ul style="list-style-type: none"> <li>Operating frequency</li> <li>Operating voltage</li> <li>Non-operating voltage</li> <li>Maximum control voltage</li> <li>Swistra functions</li> </ul>	110 – 2000 Hz / programmable $U_f \geq 0.3\% U_n$ and $U_f > U_{nf}$ $U_{nf} \geq 0.1\% U_n$ 8-15 times $U_f$ (depending on frequency) Available, optional
<b>Output data:</b>	<ul style="list-style-type: none"> <li>Number of relays</li> <li>Number of outputs</li> <li>Nominal switching voltage <math>U_c</math></li> <li>Nominal switching current <math>I_c</math></li> <li>Optical indication</li> </ul>	4, bistable 1 change-over contact each, free of potential 30 VDC or 250 VAC / 50 Hz 2 A or 0.2 A resp. 60 W LED
<b>Real-time clock:</b>	<ul style="list-style-type: none"> <li>Accuracy</li> <li>Power reserve (option)</li> </ul>	+/- 20 x 10 <sup>-6</sup> > 48 h, SuperCap optional
<b>Resistance to climate conditions:</b>	<ul style="list-style-type: none"> <li>Operating temperature</li> <li>Storage temperature</li> </ul>	-20 ... +60°C -30 ... +60°C
<b>Design:</b>	<ul style="list-style-type: none"> <li>Mounting</li> <li>Size (height x width x depth)</li> </ul>	DIN rail or wall mounting 90 x 35 x 61 mm

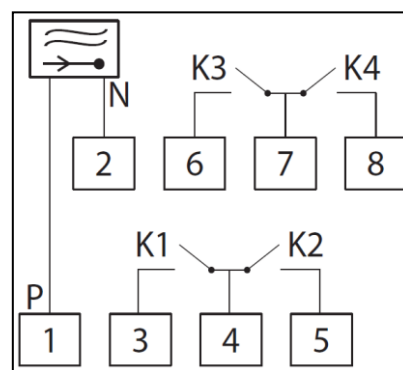
## Switching of low and ultra low currents and voltages

The relays used for this receiver type were specifically designed to switch very low currents and voltages. This is achieved by using gold coated contacts. With the SReeg, the utilities are capable to fulfil the new requirements in accordance with the revised **EEG** – the law on renewable energies – in Germany, issued in January 2012. According to this law, all renewable energy producing equipment must be controllable through the appropriate utility. With this receiver and 4 dedicated ripple control signals, such equipment can perfectly be controlled, enforcing 4 different output power ratings. Of course, the SReeg not only is for renewables, but is suitable for all purposes where low or ultra low currents or voltages need control.

## Sealable case (Option)



## Circuit diagram



# Swistec

Intelligent Energy Management Systems

Ripple Control | Smart Solutions | Transformers

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