

# SPID Elektronik

Electronic switch-key of supply



**SW-01**

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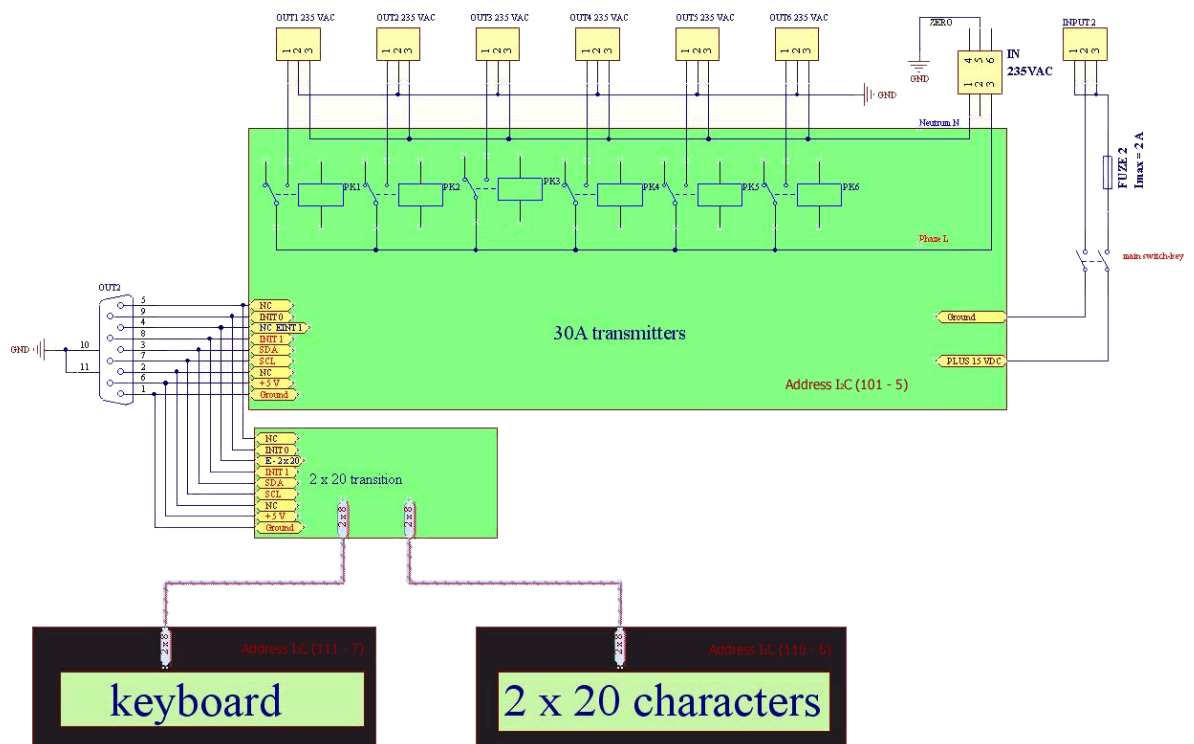
## Introduction

SW-01 is an electronic switch-key of supply. It was created as a dedicated module to the MD-01 driver.

The task of the SW-01 is to switch on the supply of outer devices necessary for the work of the transmitting set, e.g. a power amplifier.

**Attention:** The SW-01 is only a support for the MD-01 driver and it is controlled and supervised by it. The SW-01 module cannot work separately.

## The block diagram

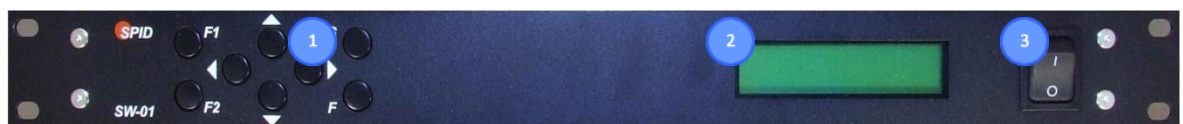


## Description

### Parameters of the driver

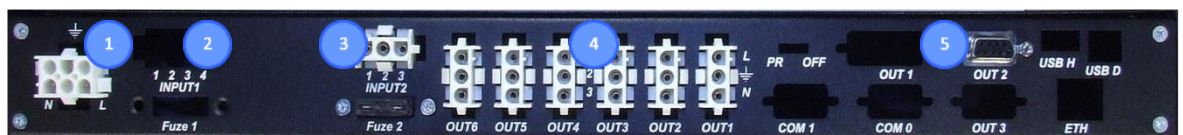
- 12 VDC ( $I_{\max} = 1A$ ) transmitter supply voltage,
- 235 VAC outer devices supply voltage,
- Maximum electric current in each DC output (OUT1 – OUT6) to 10A,
- Maximum electric current of the sum of all outputs (OUT1-OUT6) to 25A,
- Inner communication module powered from the MD-01 5VDC voltage ( $I_{\max} = 0.5 A$ ).

### Front



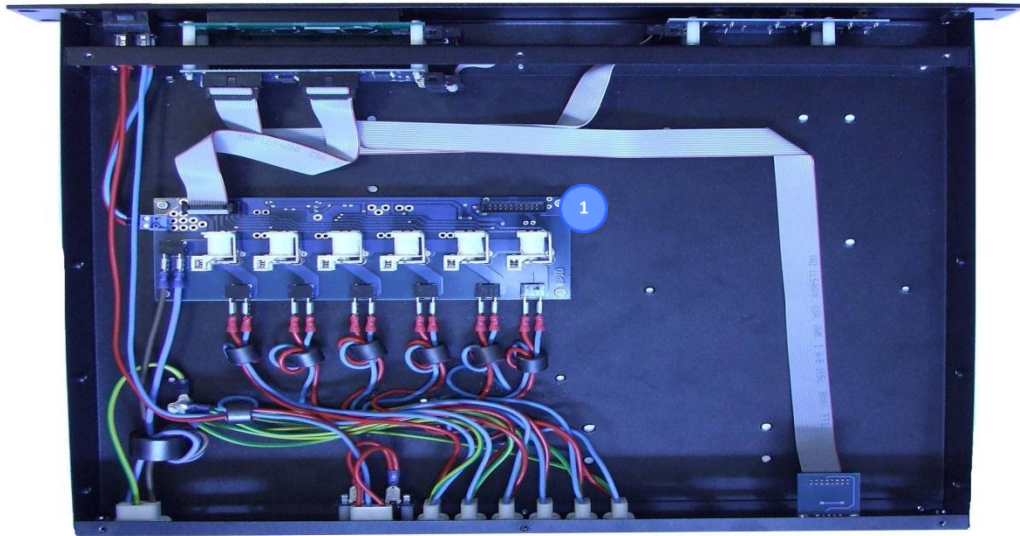
1. Keyboard.
2. 2x20 characters display.
3. Switch-key of supply.

### Back



1. Supply input for outputs from OUT1 to OUT6.
2. NC.
3. Electronics supply (FUZE 2A).
4. Outputs of the switch from OUT1 to OUT6.
5. Input controlling I2C (you connect it to the I2C MD-01 driver).

## Inside



1. The tile controlling the outputs from OUT1 to OUT6 (10A, 235V).

## Connection to the driver MD-01.



1. 235V input to outputs from OUT1 to OUT6.
2. MD-01 grounding (GROUND).
3. 235V input to the PS-01 feeder.
4. Bus used to feed rotors in the MD-01 driver (22V,  $I_{\max}$  10A).
5. Bus used to feed the electronics of the MD-01 driver and the SW-01 (15V,  $I_{\max}$  10A).
6. I<sup>2</sup>C bus control (connection of the MD-01 with the SW-01).

## Operation.

Appearance of the SW-01 switch display:



Figure 1. SW-01 switch display.

Outputs can be control manually or with the use of the **spidMD01dde** computer program. There is supply for outputs from 1 to 6 if under the corresponding number appears a dot (in figure 1 in the outputs 1 and 4 the supply is on, while the outputs 2, 3, 5 and 6 are off).

To manually switch on and off of the outputs use buttons. The buttons right and left set the cursor to the output we want to control. After setting the cursor the up button turns on the output, while the down button turns off the output.

With the use of **spidMD01dde** outputs we control the outputs by clicking under the adequate output. The output turns on and off alternately.

In order for the SW-01 to work properly, it has to be connected by the I2C bar to the MD-01 driver. By switching on the MD-01 driver supply, you turn on the supply of the electronics of the SW-01 switch – the display is working, but without highlighting (this means that outputs from OUT1 to OUT6 are not supplied). If on the outputs from OUT1 to OUT6 there was supply, you need to switch on SW-01 (the SW-01 display is highlighted).

The driver remembers manual setting and changes only those outputs (through PC), which are defined by us in the program. So we can set some outputs permanently, while through the program only change those chosen ones, while the ones set manually will not change.