SITOP DC-USV-Modul with Serial Interface (6EP1931-2EC21 and 6EP1931-2EC31)

(News in Red)

Serial Interface

The output signals normal operation, battery operation, battery charge and alarm are additionally issued via serial interface.

-Technical Specification:

- 9600 baud
- 8 data bit
- 1 stop bit
- no parity bit
- ***output of signal status every 84ms ± 20%, 29ms ± 20% data output, 55ms ± 20% stop***
- safe electrical isolation according to EN 60950

The status of output signals can be read out by means of the Windows program ”Terminal” rsp. ”Hyperterminal”, for example.

-(Hyper)-Terminal Settings: -bits per second: 9600
-data bits: 8
-parity: none
-stop bits: 1
-journal: none

-Plaintext Output:

Output of four signals in a block:

Signal	**Plaintext output**	**Annotation**
Buffer readiness Alarm	BUFRD ALARM	 No buffer readiness
Battery charge	***BA>85*** ***BA<85***	***Battery charge >85%*** ***Battery charge <85%***
Normal operation	DC_OK DC_LO	 No input voltage
 Battery operation	***** *BAT*	No battery operation

If the battery is defect, the signal „Alarm / Buffer readiness“ alternates with 0.25 Hz frequency and pulse duty factor 0.5.

-SITOP DC-UPS Software:

An evaluation software is available as freeware for download at www.siemens.de/sitop .

-Connection to PC:

A PC is connected via a 1:1 interconnected 9-pole SUB-D extension cable (male/female); only 3 poles are needed.

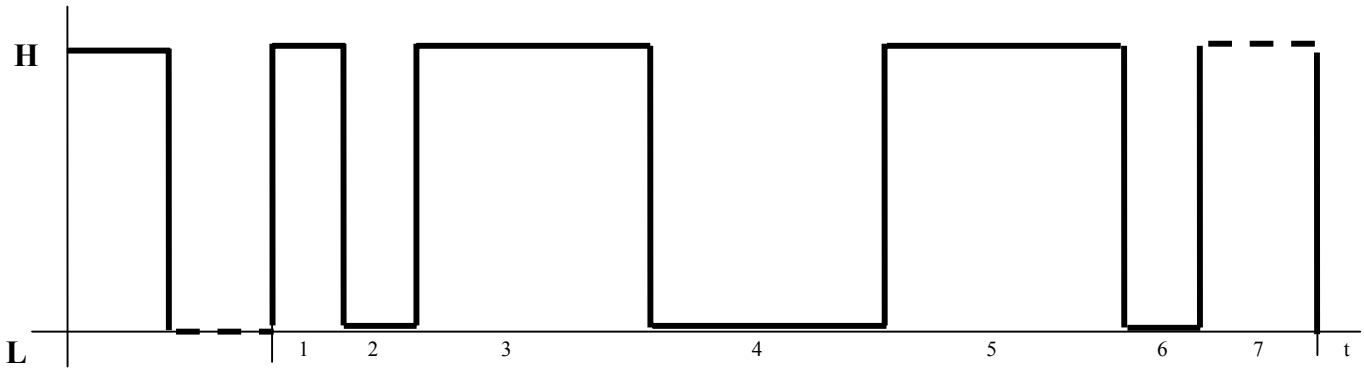
Pin2 : RXD (data line)
Pin3 : TXD (negative feed-in for interface)
Pin7 : RTS (positive feed-in for interface)

-Remote Signal:

The DC-UPS module is able to receive a shutdown signal from a PC via serial interface, to evaluate this signal and set off the following reaction:

It is a precondition that the DIP switch "buffer time" is set on t_{max}.
On receiving the remote signal described below the internal timer is started and, after expiration of the buffer time set via DIP switch, the DC-UPS module shuts off the battery voltage. If the DIP switch "interrupt" is on ON, the output voltage of the DC-UPS module is shut off for a time of approx. 5s, even in case of recurrence of the input voltage in the meantime. This function can be used for example to allow an automatic restart of industrial PCs.

- Remote-Signal for DC-UPS at pin 7 (RTS) of 9-pole serial interface:



A low signal of undefined length (depending on operating system and the number of tasks to end) starts the remote signal.

1.) 30ms – 120ms high signal
2.) 30ms – 120ms low-signal
3.) 200ms – 400ms high-signal
4.) 200ms – 400ms low-signal
5.) 200ms – 400ms high-signal
6.) 30ms – 120ms low-signal
7.) max. 256s high-signal

By the edge high-low that follows the remote signal is evaluated in the DC-UPS module and starts the internal timer for shutting down the UPS module.