US 2

View 1

Features

- Under voltage sensing or overvoltage sensing
- Delayed signal of the output relay
- LED-indication for operation and alarm
- Pot. free co contact
- Compact design

LIST OF CONTENTS

1 Scope of Application

The US 2 is especially designed for monitoring undervoltage or overvoltage of starting batteries. AC voltage, which is superimposed on the battery DC voltage, e.g. residual ripple of a charging device, will be filtered out. Only the DC voltage is monitored.

The US 2 is coded as undervoltage or overvoltage by code switches, which are placed under the front plate.

2 Method of Operation and Function

2.1 Undervoltage

The US 2 has to be connected as shown in the connecting diagram (view 2).
After connection of the battery voltage the green LED for operation indication lights up. The output relay of the US 2 is energized if the measuring voltage exceeds the preseted voltage of the switching point.
In case the DC voltage falls below the preseted limit value, the red LED lights up. When the preseted response delay time has elapsed, the output relay is deenergized. If the voltage exceeds the preseted value and hysteresis the output relay will be energized immediately and the red LED goes off. The alarm relay operates in closed-circuit principle.

2.1.1 Code switches for undervoltage (default)

DIL	OFF	ON
1	delay on (30 sec.)	-
2	hysteresis high (2%)	-
3	undervoltage	-
4	24 volts	-

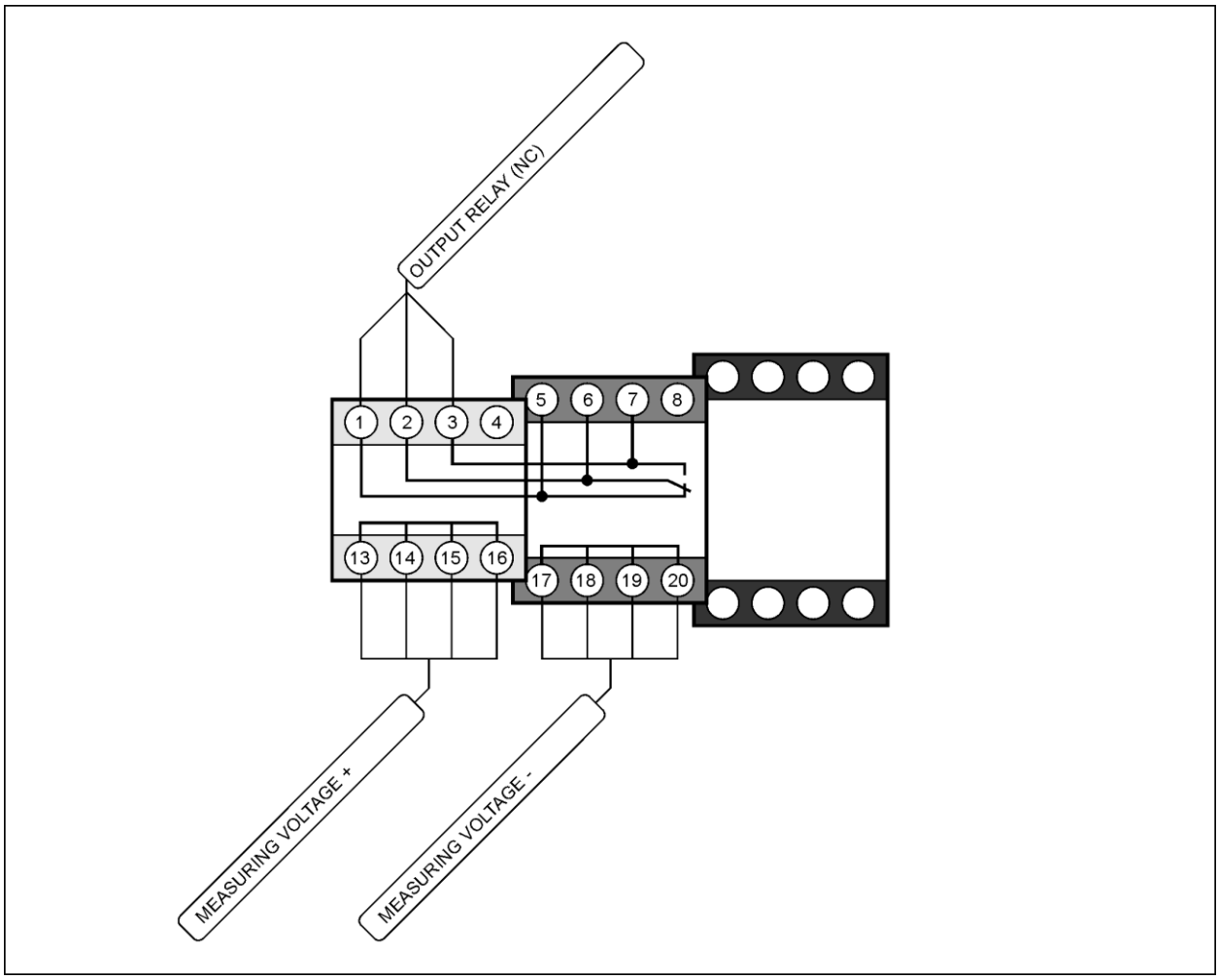
2.2 Overvoltage

The US 2 has to be connected as shown in the connecting diagram (view 2).
After connection of the battery voltage the green LED lights up. The output relay of the US 2 is deenergized, if the measuring voltage falls below the preseted switching point.
In case the DC voltage exceeds the preseted limit value, the red LED lights up and the output relay will be undelayed energized. If the voltage falls below the preseted limit value and hysteresis the output relay will be deenergized immediately and the red LED goes off. The alarm relay operates in open-circuit principle.

2.2.1 Code switches for overvoltage (default)

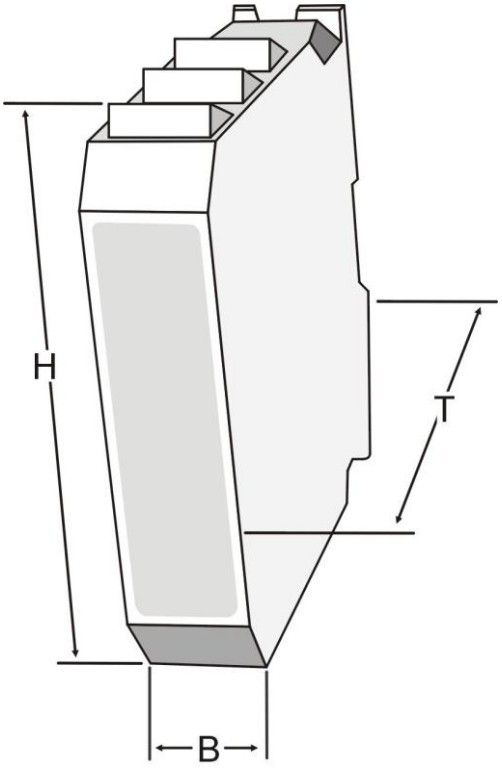
DIL	OFF	ON
1	-	delay off (<1 sec.)
2	-	hysteresis low (1%)
3	-	overvoltage
4	24 volts	-

3 Connecting Diagram



View 2

4 Dimensions



View 3

Width (B)	22,5 mm
Height (H)	99,0 mm
Depth (T)	114,5 mm

5 Technical Data

Measuring voltage 22 – 29VDC	U<-limit, factory preset on 24,0 V U>-limit, factory preset on 27,8 V
Max. voltage input	34 VDC
Power consumption	ca. 35 mA
Hysteresis	U< - factory preset on 0,5 VDC U> - factory preset on 0,1 VDC
Response delay	U< - factory preset on 30 sec. U> - factory preset on 0 sec.
Relay output	230 V AC/DC; 2 A
Voltage drop	<10 s down to 5 V, no deenergizing of output relay
Test voltage	2,5 kV
Ambient temperature	-20 ... +55 °C
Casing	DIN – plastic casing (*polyamide*) RAL 7031 blue-grey
Dimensions	W22,5 x H99 x D114,5 mm
Mounting	On DIN rail
Degree of protection	IP 40, terminal IP 20
Weight	125 g
Mounting position	any
Regulations	VDE 0160 / EN50178 VDE 0435 part 303 VDE 0110 IEC 255-6

Subject to technical modifications!

Hanseatic Power Solutions GmbH
Oststraße 67
22844 Norderstedt

Telefon +49 (0)40 5303479-0
Telefax +49 (0)40 5303479-90
Internet www.hps-power.com