

MANUAL

Basic Line | PROTECTION TECHNOLOGY
MADE SIMPLE

BU1-DC | DC VOLTAGE RELAY



DC VOLTAGE RELAY

Original document

English

Revision: B

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Application

Supervision of DC voltages

Function

Unit BU1-DC2 is equipped with an over- ($U>$) and undervoltage supervision ($U<$) with separate adjustable pick-up values and common trip delay (t) and hysteresis (DIFF).

The DC voltage measured is constantly compared with the set reference values. Any voltage signal, which exceeds the set reference value for overvoltage, or falls below the set reference value for undervoltage, will cause the respective relay to trip after elaps of the time delay.

Pick-up of the supervision circuit, either $U>$ or $U<$, is displayed by the corresponding flashing LED. At undervoltage tripping LED $U<$ extinguishes. At $U>$ -tripping LED $U>$ is steady lit.

Technical data

rated voltage U_n :	12 V or 24 V
Power consumption:	3 W
dropout to pickup ratio:	dependent on the set hysteresis
dropout time:	300 ms
Minimum operating delay:	300 ms

Output relay

max. breaking capacity:	ohmic 250 V AC/120 V DC inductive 500 V AC/ 75 W DC
rated current:	5 A
making current:	20 A

System Data

regulations:	VDE 0435 part 303
temperature range at storage and operation:	-25°C to 70°C

Mechanical stress:

shock:	class 1 acc. to DIN IEC 255-21-2
vibration:	class 1 acc. to DIN IEC 255-21-1

degree of protection

unit front:	IP 40 at closed front cover
weight:	approx. 0.3 kg
mounting position:	any

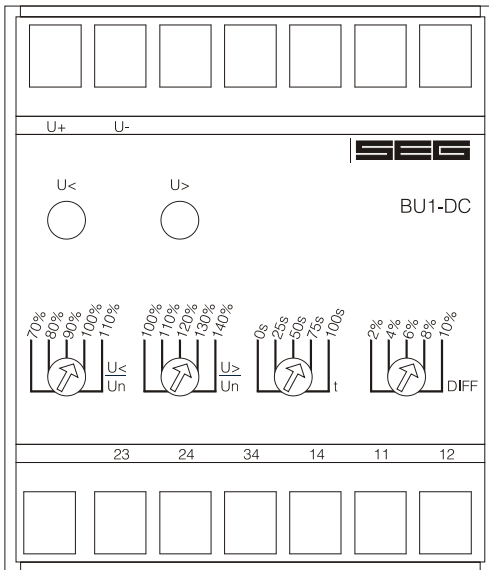


Figure 1: Front plate

Unit BU1-DC2 is designed to be fastened onto a DIN-rail acc. to DIN EN 50022, same as all units of the BASIC LINE.

The front plate of the unit is protected with a sealable transparent cover (IP40).

Please remove the transparent cover at the appropriate openings with a screw driver to adjust the relay.

LEDs

LED U< is used to indicate trouble free operation with steady light. LEDs U> and U< indicate pickup of the re-lay by flashing.

At undervoltage tripping LED U< extinguishes.

LED U> indicates tripping at overvoltage (steady light).

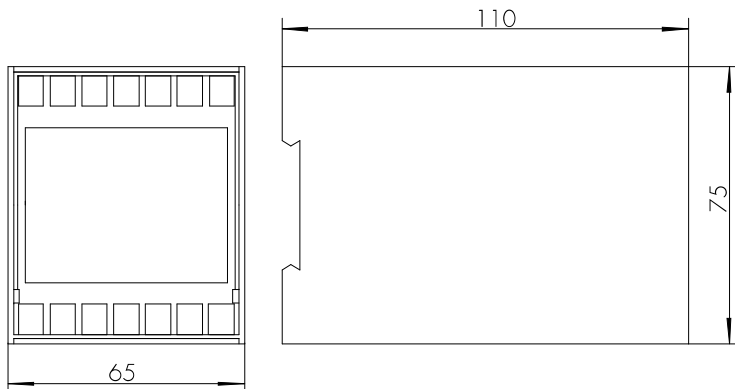


Figure 2: Dimensional drawing BU1-DC2

Auxiliary voltage supply

Unit BU1-DC2 needs no separate auxiliary voltage supply. The supply voltage can be formed directly from the measuring quantity.

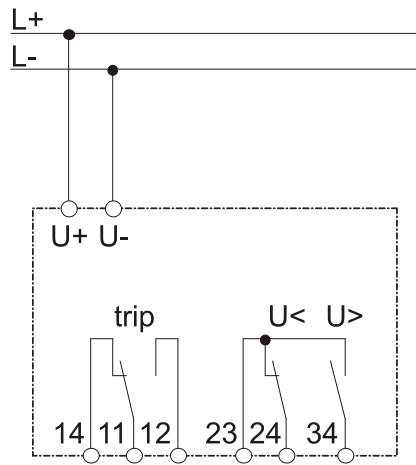


Figure 3: Connection diagram

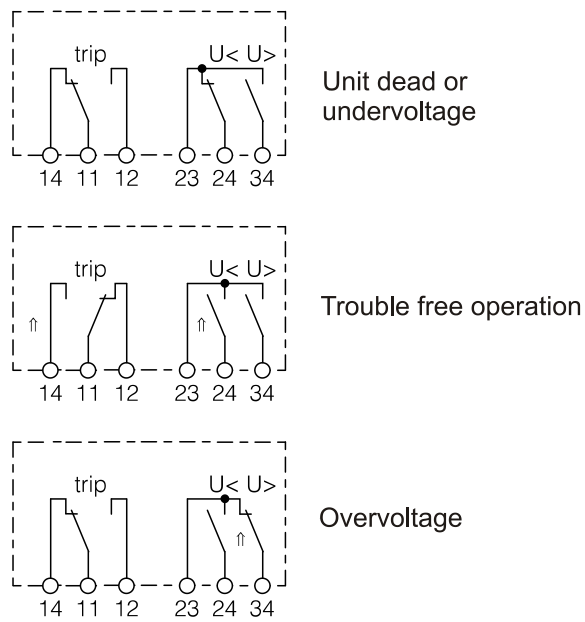


Figure 4: Contact positions

Connecting terminals

The connection up to a maximum of $2 \times 2.5 \text{ s mm}^2$ cross-section conductors is possible. For this procedure the transparent cover of the unit has to be removed.

Setting ranges

U<: 0.7 - 1.1 Un

U>: 1.0 - 1.4 Un

t: 0 - 100 s

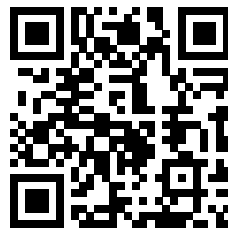
DIFF: 2 - 10 %

Order form

DC voltage relay		BU1DC2	
Rated voltage	12 V/DC		12
	24 V/DC		24

Basic Line

www.SEGelectronics.de



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