

Basic Range

BU1-DC2-U -DC Undervoltage Relay

Application

Supervision of DC undervoltage

Function

Unit *BU1-DC2-U* is equipped with on undervoltage supervision ($U<$) with adjustable pick-up values, trip delay (t) and hysteresis (DIFF).

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

Pick-up of the supervision circuit, is displayed by the flashing LED ($U<$).

At undervoltage tripping LED $U<$ extinguishes.

Technical data

Rated voltage U_n	: 12 V or 24 V
Power consumption	: 3 W
Accuracy	: $\pm 5\%$ of set value
Dropout to pickup ratio	: dependent on the set hysteresis
Dropout time	: 300 ms
Minimum operating delay	: 300 ms

Output relay

Maximum breaking capacity ohmic	: 1250 VA AC/120 W DC
Inductive	: 500 VA 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

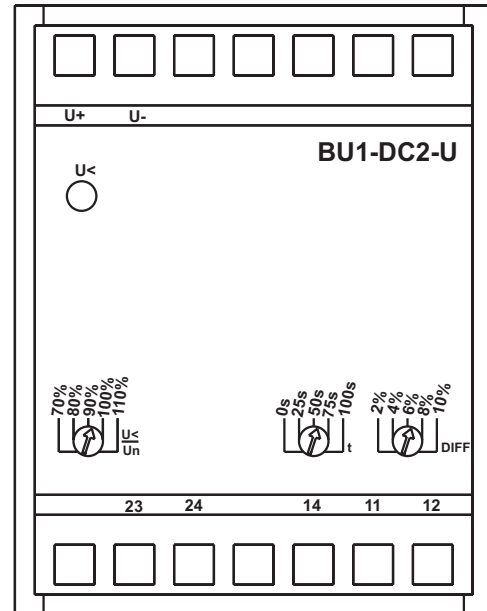


Fig. 1 : Front plate

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

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

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

LEDs

LED $U<$ is used to indicate trouble free operation with steady light. LEDs $U<$ indicate pickup of the relay by flashing.

At undervoltage tripping LED $U<$ extinguishes.

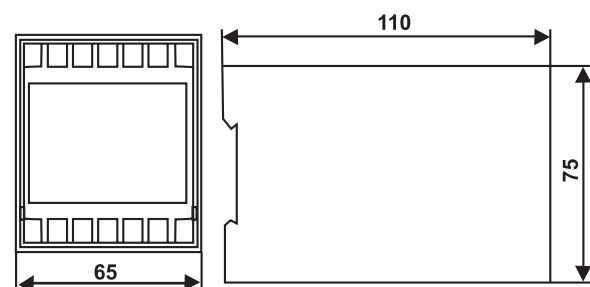


Fig. 2 : Dimensional drawing BU1-DC2-U

Auxiliary voltage supply

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

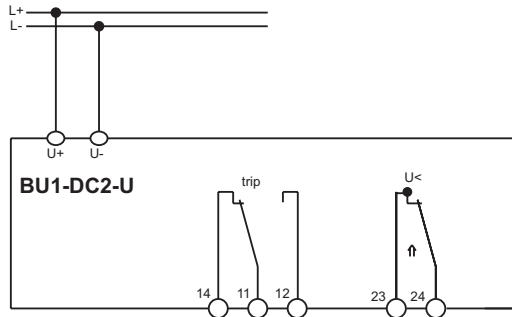
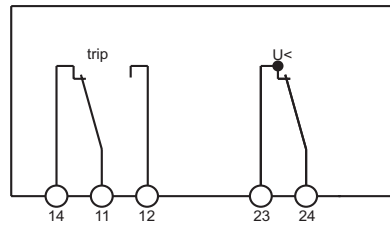
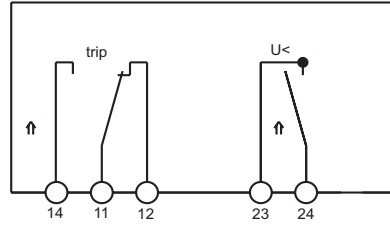


Fig. 3. Connection diagram



Unit dead or undervoltage



Trouble free operation

Fig. 4: Contact positions

Connecting terminals

The connection up to a maximum of $2 \times 2.5 \text{ mm}^2$ 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 U_n
 t : 0 - 100 s
 DIFF : 2 - 10 %

Order key

<i>BU1-DC2-U</i>	
Rated voltage 12 V	12
Rated voltage 24 V	24

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