Instruction

Voltage Drop Detector

rabbit
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ENGLISH

Thank you for purchasing the Voltage Drop Detector.

Please, read the operation manual and follow the rules thereof.

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Fig. 1 Voltage Drop Detector

1. INTENDED USE AND MODE OF OPERATION

The **voltage drop detector** is used to detect and signal a voltage drop at one of the four inputs. The device does not distinguish between phases.

2. DEVICE PROPERTIES, TECHNICAL PARAMETERS

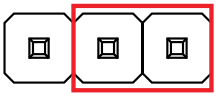
2.1. Device properties

- detection and signaling of voltage absence at one of four inputs
- operation mode without an analysis of voltage input (factory set)
- operation mode with an analysis of voltage input
- optical signaling of operation mode
- no phase distinction
- cooperation with CPAnet and midiBLUE street lighting systems
- possible cooperation with other devices
- possible installation in every lighting cabinet

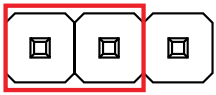
2.2. Technical parameters

- power supply voltage: 230VAC, ±10%, 50Hz,
- dimensions (w/h/l): 53 x 96 x 33 mm
- device width: 3 modules
- number of outputs: 1P
- relay output current-carrying capacity: AC1: 5A/230V, DC1: 5A/24V
- number of inputs: 4 (galvanic separation)
- power consumption: max. 1W
- operating temperature: from -20°C to +70°C
- voltage on inputs L1 - L4: max. 400VAC,
- degree of protection: IP20
- installation on the DIN bar

3. FRONT PLATE



Jumper in the right position
operation mode without an analysis of voltage input (factory set)



Jumper in the left position
operation mode with an analysis of voltage input

Fig. 2 Front plate

L1 ÷ L4 – detection of phase presence in a given circuit. No phase distinction. II

WE – voltage input, detection of the presence of phase switched on by auxiliary contacts of the contactor or phase directly from the contactor coil.

L, N – power supply leads: phase and neutral. Connected behind the main protection in the cabinet.

COM, NO, NC – relay output with two pairs of contacts: NO and NC. Possibility of connecting a phase or using potential-free contacts.

4. OPTICAL SIGNALING

ZAS – LED indicating the operating status of the device. The green LED indicates that the unit is connected to the power supply.

WY – Output status LED. Indicates the status of the relay output. The red LED indicates that the relay output is activated (no alarm).

5. OPERATING MODES

Operation mode without an analysis of voltage input (factory set) – jumper in the right position (connecting the extreme right pin to the middle pin).

Phase inputs L1 ÷ L4 are analyzed regardless of the state of the voltage input WE. If all phase inputs L1 ÷ L4 have voltages, then the relay output is switched on - contact no. 7-9 is shortened (no alarm - WY LED is on). If any of the voltages at the phase inputs L1 ÷ L4 are missing, the relay output is not activated (alarm - WY LED is off).

Operation mode with an analysis of voltage input – jumper in the left position (connecting the left pin to the middle pin).

In case of voltage presence on the WE input, voltage on phase inputs L1 ÷ L4 is analyzed. If all phase inputs have voltages, then the relay output is switched on - contact no. 7-9 is shortened (no alarm - WY LED is on). If any of the voltages at the phase inputs are missing, the relay output is not activated (alarm - WY LED is off). In case of lack of voltage on the WE voltage input, phase inputs L1 ÷ L4 are not analyzed. The relay output is permanently switched off (WY LED is off).

NOTE!

Do not exceed the rated parameters of the device.

Absolutely observe the polarity of the power supply.

6. STARTING UP, WIRING DIAGRAMS

To start up the device, connect it according to one of the following diagrams. The device is powered from 230VAC mains. The phase and neutral wires must be connected to the L, N inputs, respectively. Always observe the polarity. When power is applied to the input, the ZAS LED is activated to indicate operation.

Connect the phase wire to the relay output of the COM common terminal (terminal 9). The NC output (positions 8-9) or NO output (positions 7-9) can then be used to control the contactor/relay coil. Potential-free contacts can also be used.

Connect the phases supplying individual lighting circuits to the inputs L1 ÷ L4. If there are less lighting circuits than L1 ÷ L4 inputs, then not connected inputs should be connected according to the diagram. If there are more lighting circuits than inputs in the device, more devices must be used (as shown in the diagram).

You can use the WE input by connecting a phase thereto via the auxiliary contacts of the contactor or directly from the contactor coil. The jumper should then be used to select the operating mode with the analysis of the voltage input.

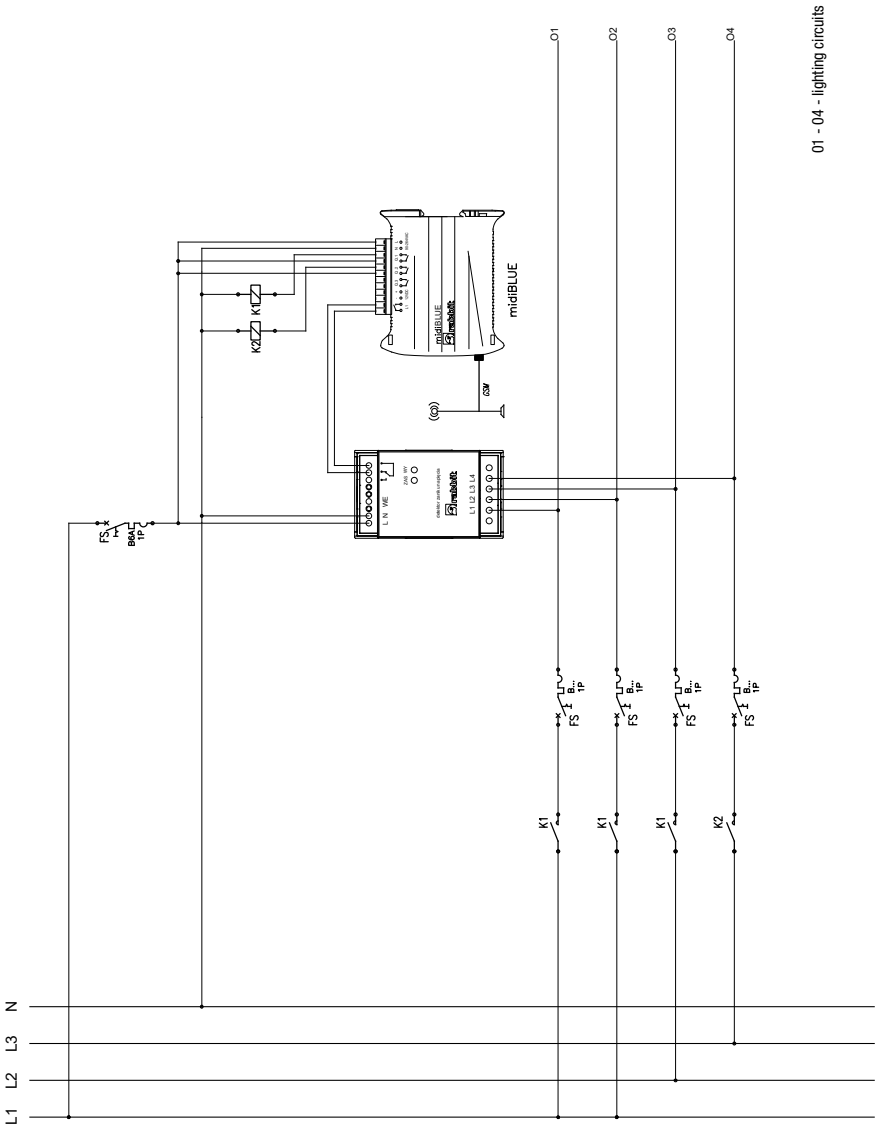


Fig. 3 Wiring diagram with three-phase and one-phase contactor.
Supervision of the protection status of four lighting circuits. Detector in the mode without the analysis of WE input.

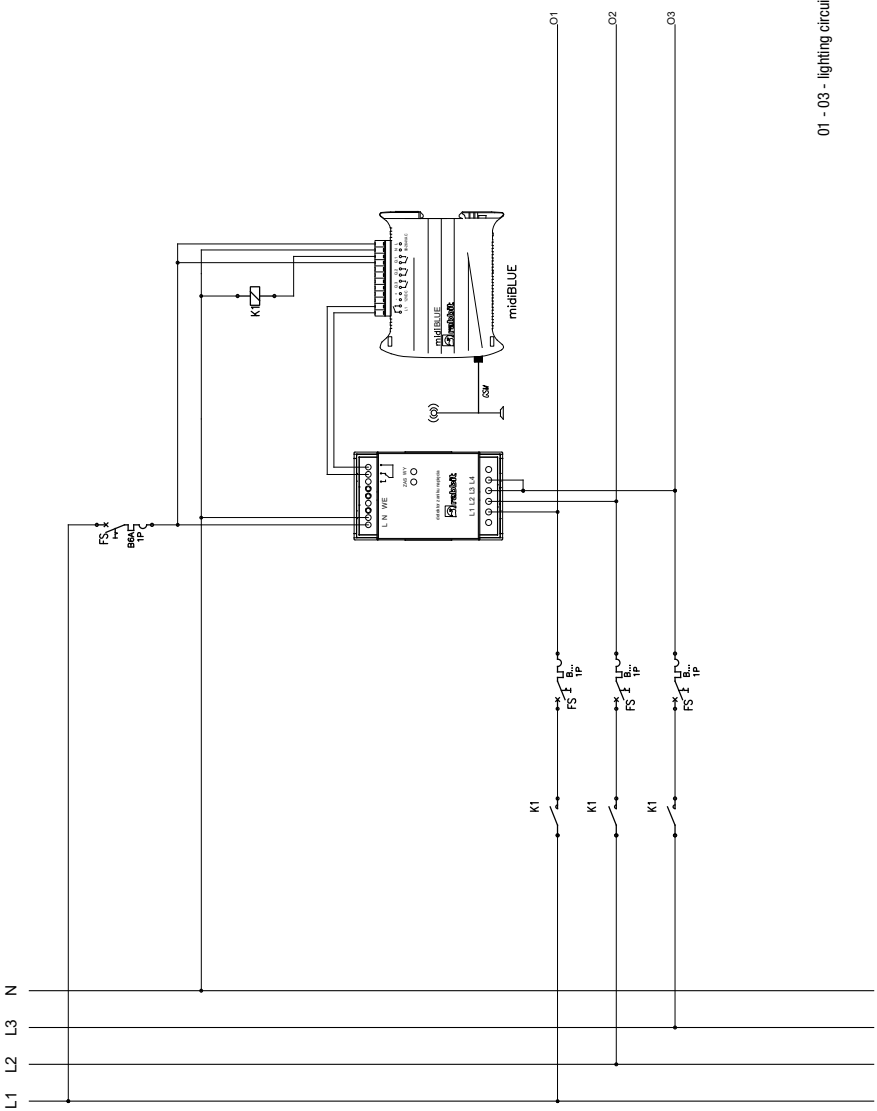


Fig. 4 Wiring diagram with the use of one three-phase contactor.
Supervision of the protection status of three lighting circuits. Detector in the mode without the analysis of WE input.

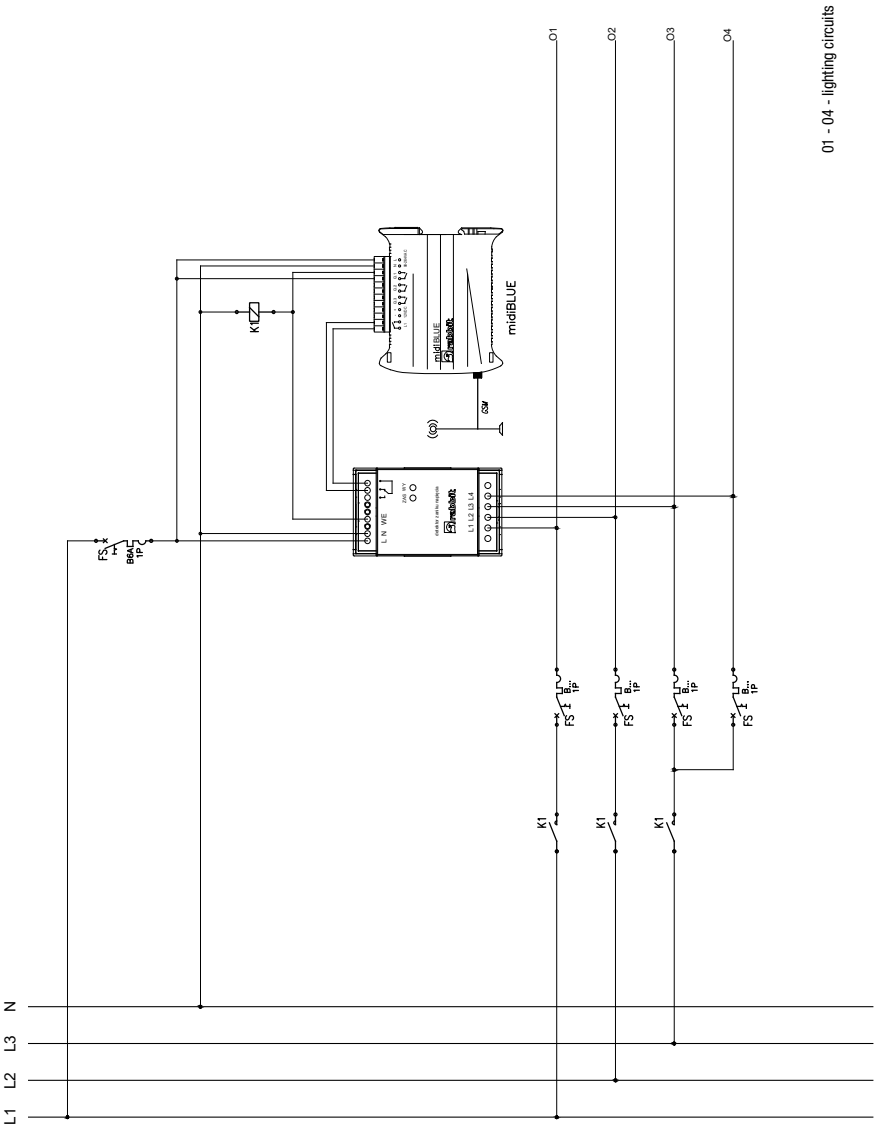


Fig. 5 Wiring diagram with the use of one three-phase contactor with an auxiliary contactor. Supervision of the protection status of four lighting circuits. Detector in the mode with the analysis of WE input.

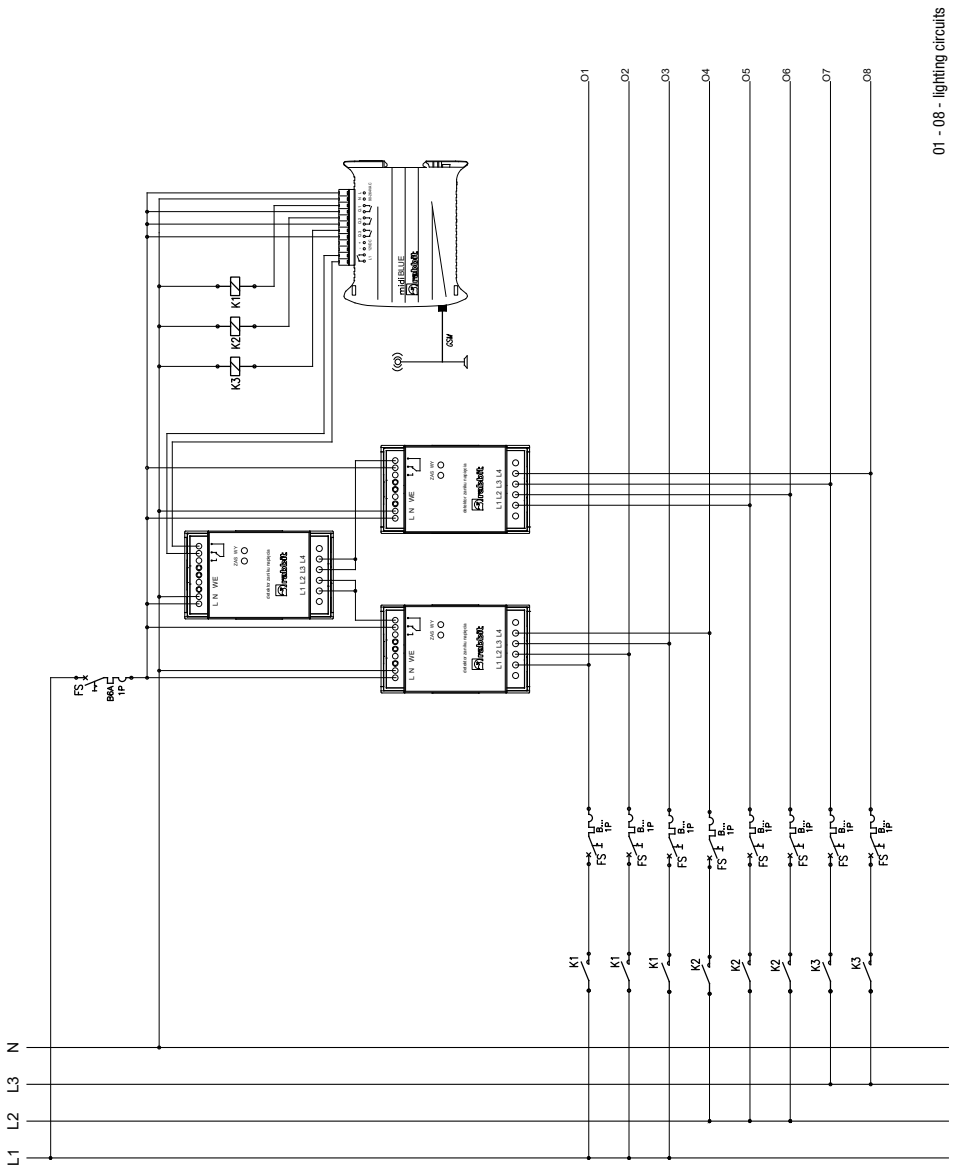
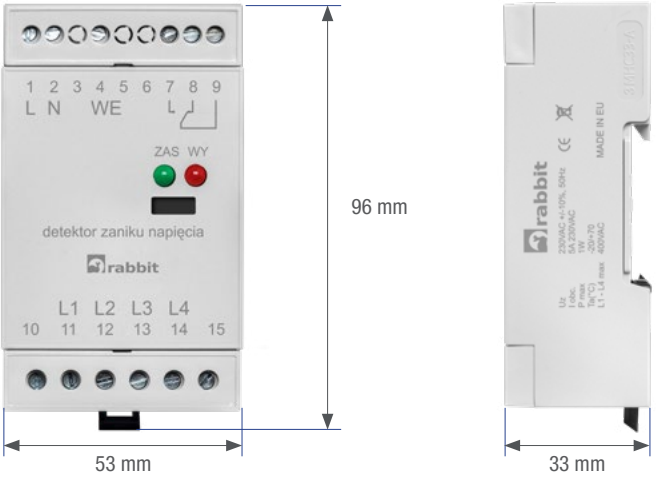


Fig. 6 Wiring diagram with the use of three three-phase contactors.
Supervision of the protection status of eight lighting circuits. Detector in the mode without the analysis of WE input

7. DEVICE DIMENSIONS



WARRANTY CARD

Warranty conditions

1. The manufacturer provides the highest quality products for which this Warranty Card is issued.
2. The warranty is granted for a period of 2 years from the date of sale.
3. The condition of warranty performance is to deliver the product with an intact seal to the service point together with the warranty card and proof of purchase of the product.
4. Defects or damage to the product revealed during the warranty period will be repaired free of charge within 14 days from the date of delivery to the service point.
5. The warranty period is extended by the time during which the user could not use the product due to a defect in the product covered by the warranty. If the user has received a new product instead of a defective one, the warranty period runs anew. Where a part of a product is replaced, the above rule shall apply accordingly to the part replaced.
6. The warranty does not cover damage resulting from:
   - incorrect connection,
   - short-circuits in controlled circuits,
   - lightning,
   - mechanical damage and the resulting defects,
   - damage resulting from the use of the device contrary to the instruction manual.
7. In matters not regulated by this Warranty Card, the relevant provisions of the Civil Code shall apply.

DEVICE NAME AND TYPE	Voltage Drop Detector
DATE OF SALE	.....
IDENTIFICATION NUMBER	.....

.....
DATE AND SIGNATURE OF AUTHORIZED PERSON

SERVICE ADDRESS

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