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DESCRIPTION

The PBM-07 bistable relay is used to control lighting or any other device by means of unipolar push buttons connected in a parallel way. The relay is equipped with two outputs activated by means of impulses given to the (IN) input. It allows to control two circuits / branches simultaneously. The control impulse must be the "L" line signal. The trigger input structure enables cooperation with backlit push buttons (including LED backlight). The total current of backlight for the (IN) input can not exceed 1,5 mA. The device is designed to be mounted in distribution boards (TH35 rail). LEDs on the front panel indicate power supply (green LED) and the output status (2 x red LED).

FEATURES

- control of lighting and other devices according to a defined sequence,
- output status indicated by red LEDs (2 x red LED),
- power supply indication (1 x green LED),
- system release only from the "L" line,
- possibility of cooperation with unipolar backlit push buttons,
- two-wire control installation,
- two independent relay outputs – (dry contacts) 2 NO /NC contacts with a maximum load of 16 A,
- mounting in distribution boards (TH35 rail).



The device is designed for single-phase installation and must be installed in accordance with standards valid in a particular country. The device should be connected according to the details included in this manual instruction. Installation, connection and control should be carried out by a qualified electrician staff, who act in accordance with the service manual and the device functions. In case of casing dismantling, the guarantee is lost and an electric shock may occur. Before installation make sure the connection cables are not under voltage. Improper transport, storage, and use of the device influence its wrong functioning. It is not advisable to install the device in the following cases: if any device part is missing or the device is damaged or deformed. In case of improper functioning of the device contact the producer.

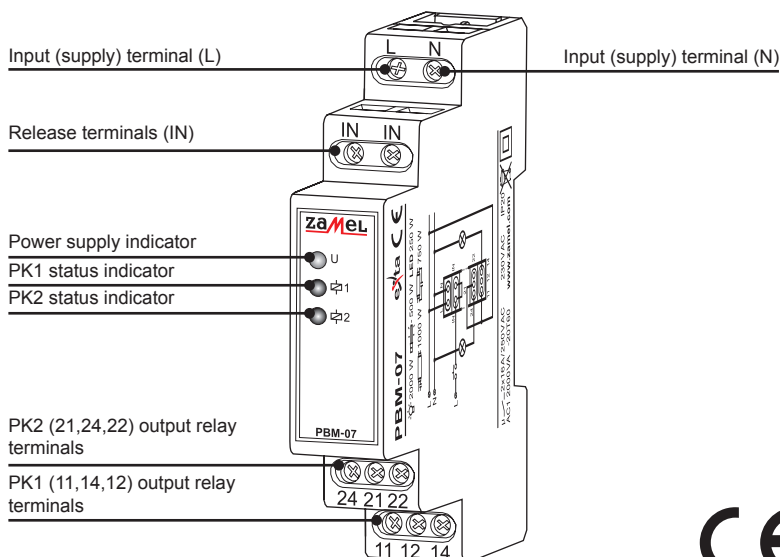


The symbol means selective collecting of electrical and electronic equipment. It is forbidden to put the used equipment together with other waste.

TECHNICAL DATA

| PBM-07 | |
|---|--|
| Input (supply) terminals: | L, N |
| Nominal supply voltage: | 230 V AC |
| Nominal supply voltage tolerance: | -15 ÷ +10 % |
| Nominal frequency: | 50 Hz |
| Nominal power consumption: | stand-by: 0,4 W 2 active outputs: 1,1 W |
| Optical signalling of relay status: | 2x red LED |
| Release terminals: | IN, IN |
| Release control current: | 7,5 mA |
| Cooperation with backlit push buttons: | yes |
| Total current of the push button backlight: | < 1,5 mA |
| Minimum impulse release time: | 70 ms |
| Output devices: | 2 x relays |
| Relay contact parameters: | NO/NC – 16 A / 250 VAC |
| Number of connection terminals: | 10 |
| Cross-section of connection cables: | 0,2 ÷ 2,5 mm ² |
| Operating temperature range: | -20 ÷ +45 °C |
| Operating position: | free |
| Casing mounting: | TH35 rail |
| Casing protection degree: | IP20 |
| Protection class: | II |
| Overvoltage category: | II |
| Pollution degree: | 2 |
| Dimensions: | 90 x 17,5 x 66 mm |
| Weight: | 0,090 kg |
| Reference standard: | PN-EN 60669-1, PN-EN 60669-2-1 PN-EN 61000-4-2,3,4,5,6,11 |

APPEARANCE



MOUNTING, FUNCTIONING

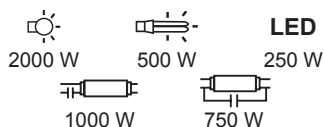
1. Disconnect power supply by the phase fuse, the circuit-breaker or the switch-disconnector combined to the proper circuit.
2. Check if there is no voltage on the connection cables by means of a special measuring equipment.
3. Install PBM-07 on a TH35 rail in the distribution board.
4. Connect the device cables with the terminals in accordance with the installing diagram.
5. Switch on the power supply from the mains.
6. Press a push button connected to the (IN) release input a few times to check if the device operates properly.

After supply voltage has been applied, the device is ready to operate. Correct operation of the PBM-07 relay can be checked by pressing a push button connected to the release terminal (IN) a few times. The system should switch on / switch off loadings connected to its output terminals (PK1-11,12,14 and PK2-21,22,24). Unipolar push buttons can be connected in a parallel way and provide lighting control of several places. These push buttons are available with backlight.

CAUTION:

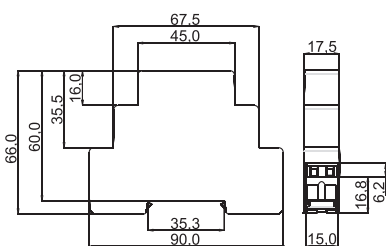
PBM-07 can cooperate with backlit push buttons. The total current consumption before backlight can not exceed 1,5 mA. The (IN) release input structure is used to a continuous triggering.

CAPACITY



The above values are only indicative. They depend, to a large extent, on a particular capacity (mainly it refers to LED bulbs, energy-saving lamps and switched-mode power supplies), switching on frequency and operating conditions.

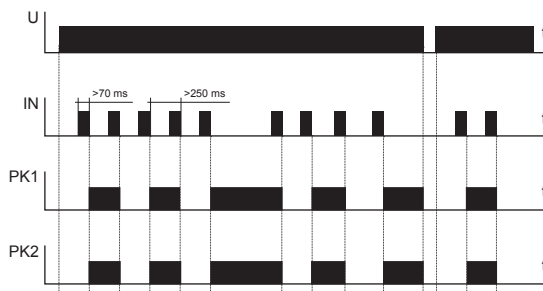
CASING DIMENSIONS



OPERATION MODES

After supply voltage has been applied or after its decay both relays PK1 and PK2 are switched off. In case the subsequent impulses are given to the (IN) input, the device will:

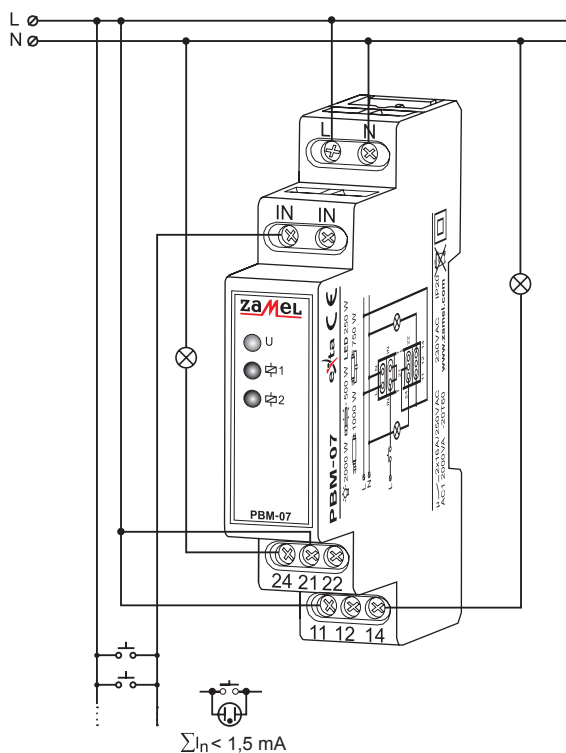
- switch on both output relays,
- switch off both output relays.



General impulse release requirements:

- The PBM-07 relay reacts to the falling edge of the release impulse (reaction to the button release connected to the (IN) input).
- Minimum duration of impulse release – 70 ms.
- Minimum time interval between subsequent impulses – 250 ms.

CONNECTION



WARRANTY CARD

There is a 24 month guarantee on the product

1. ZAMEL Sp. z o.o. assures a 24 month guarantee for the product.
2. The manufacturer's guarantee does not cover any of the following actions:
 - a) mechanical damage during transport, loading / unloading or under other circumstances,
 - b) damage caused by incorrect product mounting or misuse,
 - c) damage caused by unauthorised modifications made by the PURCHASER or any third parties to the product or any other devices required for the product functioning,
 - d) damage caused by Act of God or any other incidents independent of the manufacturer – ZAMEL Sp. z o.o.
3. The PURCHASER shall lay any claims in writing in the place of purchase or to ZAMEL Sp. z o.o.
4. ZAMEL Sp. z o.o. is liable for processing any claim according to current Polish legislation.
5. ZAMEL Sp. z o.o. shall process the claim at its own discretion: product repair, replacement or money return.
6. The manufacturer's guarantee is valid in the Republic of Poland.
7. The PURCHASER's statutory rights in any applicable legislation whether against the retailer arising from the purchase contract or otherwise are not affected by this warranty.

Salesman stamp and signature, date of sale