

Timer  
**ZBR2 - Flasher beginning with off with 2 Changeovers**  
 17.5mm housing



### Application

Time control

### Description

The **ZBR2 Flasher beginning with off timer** offers 16 different timing intervals in one unit. The timing intervals can be adjusted with DIP switches on the upper panel of the relay. The timer can operate on either 230V AC using terminals A1 and A2 or 24V DC using terminals A3 and A2. The green LED indicates the connection to the power supply.

### Function

The timing begins with the connection of the power supply to the terminals A1 and A2 or A3 and A2. The timing cycle begins with a pause. After completion of the selected delay time the output relay is energized. This operation is indicated by the red LED. After completion of the selected timing cycle the relay returns to its rest position. This cycle repeats as long as the power supply is connected. Should the power supply be disconnected during the reset time, the timer returns to its original state. This also applies if the supply is disconnected during the timing period.

### Options

Other timing ranges and voltages available upon request.

### Part number

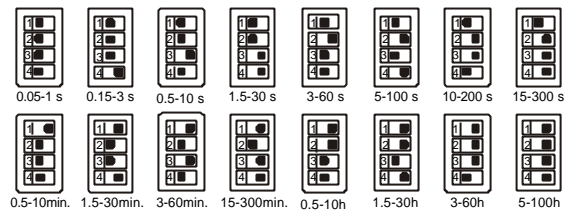
**011216**      **ZBR2 Flasher beginning with off**  
**16 Timing ranges/2 Changeovers**

### Timing ranges

16 timing ranges adjustable with DIP switches

|            |              |
|------------|--------------|
| 0.05 – 1 s | 0.5 – 10 min |
| 0.15 – 3 s | 1.5 – 30 min |
| 0.5 – 10 s | 3 – 60 min   |
| 1.5 – 30 s | 15 – 300 min |
| 3 – 60 s   | 0.5 – 10 h   |
| 5 – 100 s  | 1.5 – 30 h   |
| 10 – 200 s | 3 – 60 h     |
| 15 – 300 s | 5 – 100 h    |

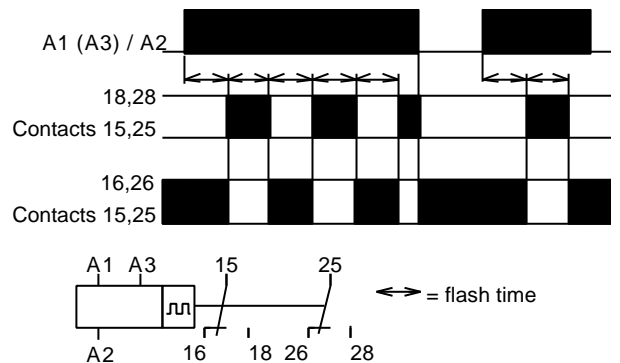
### DIP switch adjustments



### Approvals



### Function diagram



### Mounting

Snap-on mounting using a standard DIN rail EN 50022. The unit is designed to allow side-by-side mounting, with an ambient temperature of < 60°C.

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**Technical data**

**Supply**

Supply voltage           A1/A2: 230V AC           -15 / +10%  
                                   A3/A2: 24V AC/DC       -15 / +10%

Frequency range:           0 / 50 ... 60Hz  
 Power consumption:       approx. 1.5W with DC  
                                   approx. 6VA with AC  
 Operating mode:           continuous  
 Supply voltage influence: < 0.01% over voltage range

Temperature influence:    < 0.01%/°C  
 Recovery time:            < 100ms  
 Repetitive accuracy:     ± 0.2%

**Operation indicators**

Supply voltage:            LED, green  
 Relay in working position: LED, red

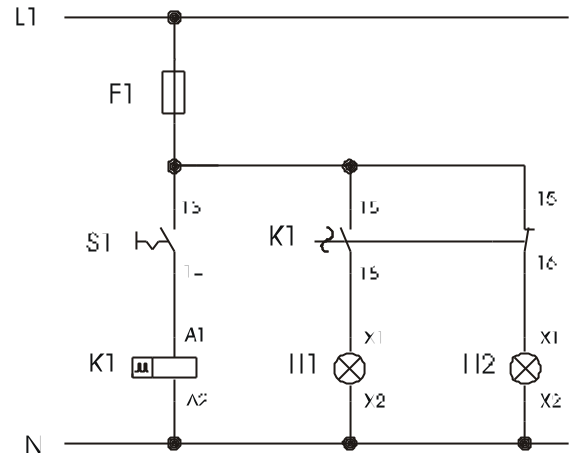
**Contact**

Number of changeovers:   2  
 Contact material:          AgSnO<sub>2</sub>  
 Maximum switching voltage: 250V AC  
 Maximum switching current: 4A  
 Drop-off time of switching element: approx. 20ms  
 Mechanical life:           30 Mio.  
 Electrical life (with rated load): 0.8 Mio.

**General data**

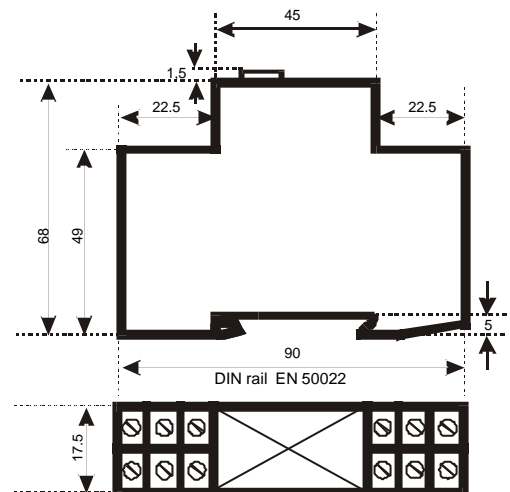
Ambient temperature:     - 25 ... + 60°C  
 Climate resistance:       VDE 0435T.2021  
 Mounting position:       any  
 Vibration resistance:     VDE 0435T.2021  
 Test voltage:             2.5kV  
 Isolation group:         VDE 0110 Group  
                                   C 250  
 Protection class:         Terminals IP 20  
                                   Housing IP 40  
 Connection terminals:     Crosshead screws; M3.5  
                                   self-opening  
 Connection cross section: Multi-strand wire with wire  
                                   sleeves 2 x 2.5mm<sup>2</sup>  
                                   single-wire 2 x 2.5mm<sup>2</sup>  
 Finger touch protection: VDE 0106T.100 and  
                                   VBG4  
 Mounting:                 Symmetrical rail DIN  
                                   EN 50022  
 Dimensions l x w x h:     90mm x 17.5mm x 69.5mm  
 Weight:                    104g

**Example**



When the contact S1 closes, the lights H1 and H2 blink alternately to the selected timing cycle (H1 begins with pause).

**Dimensions**



**Connections**

The terminal assignment for the connections is located on the front panel of the relay. **Reading the front panel from top to bottom**, the connections are in the following order:

|                    |        |              |
|--------------------|--------|--------------|
| LED side           | Right: | nc – 16 – A3 |
|                    | Left:  | 18 – 15 – A1 |
| Potentiometer side | Right: | nc – 25 – 28 |
|                    | Left:  | nc – A2 – 26 |