- Timer multifunctional
- 6 Functions
- 7 time ranges
- Wide supply voltage range
- 2 change over contacts
- Width 22.5 mm
- Industrial design



# Technical data

## 1. Functions

Ip Asymmetric flasher pause first Ii Asymmetric flasher pulse first

ER ON delay and OFF delay with control input EWu ON delay and single shot leading edge with

control input

EWs ON delay single shot leading edge

voltage controlled

WsWa Single shot leading and single shot trailling

edge with control contact

## 2. Time ranges

Time range Adjustment range 1s 50ms 1s 500ms 10s 10s 1min 3s1min 10min 30s 10min 1h 3min 1h 10h 30min 10h 100h

# **■** 3. Indication

Green LED U/t ON:
Green LED U/t slow flashing:
Green LED U/t fast flashing:
Green LED U/t fast flashing:
Yellow LED R ON/OFF:
indication of supply voltage
indication of time period t2
indication of relay output

# **▶** 4. Mechanical design

Self-extinguishing plastic housing, IP rating IP40 Mounted DIN-rail TS 35 according to EN 50022

Mounting position: any

Shockproof terminal connection according to VBG 4 (PZ1 required),

IP rating IP20

Tightening torque: max. 1Nm

Terminal capacity:

1 x 0.5 to 2.5mm² with/without multicore cable end

1 x 4mm² without multicore cable end

 $2 \ x \ 0.5 \ to \ 1.5 mm^2 \ with/without multicore cable end$ 

2 x 2.5mm² flexible without multicore cable end

# **▶** 5. Input circuit

 Supply voltage:
 terminals A1(+)-A2

 Types G2Z..12-240VAC/DC:
 12 to 240V AC/DC

 Tolerance:
 12V-10% to 240V+10%

Rated consumption: 6VA (2W)
Rated frequency: AC 48 to 63Hz
Duty cycle: 100%
Reset time: 100ms
Residual ripple of DC: 10%

Drop out voltage: >30% minimum rated supply voltage

Overvoltage category: III (according to IEC 60664-1)

Rated surge voltage: 4kV

## ▶ 6. Output circuit

2 potential free change over contacts Rated surge 250V AC Switching capacity (distance <5mm):

750VÁ (3A / 250V AC)

Switching capacity (distance >5mm):

1250V (5A / 250V AC)

Fusing: 5A fast acting Mechanical life:  $20 \times 10^6$  operations Electrical life:  $2 \times 10^5$  operations at 1000VA resistive load

Switching frequency: max. 60/min at 100VA resistive load

max. 6/min at 1000VA resistive load (according to IEC 947-5-1)
III. (according to IEC 60664-1)

Rated surge voltage: 4kV

#### **▶** 7. Control contact

Overvoltage category:

Input not potential free: terminals A1-B1 Loadable: yes

Max. line length: 10m

Trigger level (sensitivity): automatic adaption to supply voltage

Min. control pulse length: DC 50 ms / AC 100 ms

# 8. Accuracy

Base accuracy: ±1% of maximum scale value
Adjusting accuracy: <5% of maximum scale value

Repedition accuracy: <0.5% or ±5ms Voltage influence: -

Temperature influence: ≤0.01% / °C

# 9. Ambient conditions

Ambient temperature: -25 to +55°C (according to IEC 68-1)

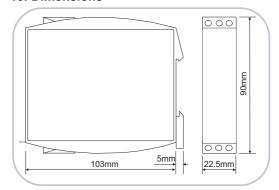
Storage temperature: -25 to +70°C
Transport temperature: -25 to +70°C
Relative humidity: 15% to 85%

(according to IEC 721-3-3 Klasse 3K3)

Pollution degree: 3 (according to IEC 664-1)
Vibration resistance: 10 to 55 Hz 0.35mm
(according to IEC 68-2-6)
Shock resistance: 15g 11ms

(according to IEC 68-2-27)

# **▶** 10. Dimensions



# Functions

The function has to be set before connecting the relay to the supply voltage.

#### Asymmetric flasher pause first (lp)

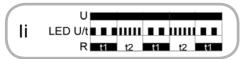
When the supply voltage U is applied, the set interval t1 begins (green LED U/t flashes slowly). After the interval t1 has expired, the output relay R switches into on-position (yellow LED illuminated) and the set interval t2 begins (green LED U/t flashes fast). After the interval t2 has expired, the output relay switches into off-position (yellow LED not illuminated).

The output relay is triggered at the ratio of t1:t2 until the supply voltage is interrupted.



#### Asymmetric flasher pulse first (li)

When the supply voltage U is applied, the output relay R switches into on-position (yellow LED illuminated) and the set interval t1 begins (green LED U/t flashes slowly). After the interval t1 has expired, the output relay switches into off-position (yellow LED not illuminated) and the set interval t2 begins (green LED U/t flashes fast). After the interval t2 has expired, the output relay switches into on-position (yellow LED illuminated). The output relay is triggered at the ratio of t1:t2 until the supply voltage is interrupted.

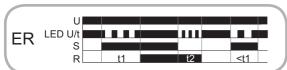


#### ON delay and OFF delay with control input (ER)

The supply voltage U must be constantly applied to the device (green LED U/t illuminated).

When the control contact S is closed, the set interval t1 begins (green LED U/t flashes slowly). After the interval t1 has expired (green LED U/t illuminated), the output relay R switches into on-position (yellow LED illuminated). If the control contact is opened, the set interval t2 begins (green LED U/t flashes fast). After the interval t2 has expired (green LED U/t illuminated) the output relay switches into off-position (yellow LED not illuminated).

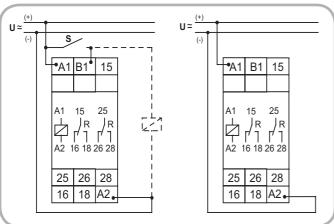
If the control contact is closed during timing of t2 the expired interval is erased, and the off delay restart next time the control contact is opened.



# Connections

with control contact

without control contact



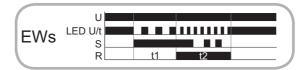
#### ON delay and single shot leading edge with control input (EWs)

The supply voltage U must be constantly applied to the device (green LED U/t illuminated).

When the control contact S is closed, the set interval t1 begins (green LED U/t flashes slowly). After the interval t1 has expired (green LED U/t illuminated), the output relay R switches into on-position (yellow LED illuminated) and the set interval t2 begins (green LED U/t flashes fast). After the interval t2 has expired (green LED U/t illuminated) the output relay switches into off-position (yellow LED not illuminated). During the interval, the control contact can be operated any number of

During the interval, the control contact can be operated any number of times.

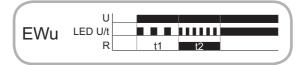
A further cycle can only be started when the cycle run has been completed.



## ON delay and single shot leading edge voltage controlled (EWu)

When the supply voltage U is applied, the set interval t1 begins (green LED U/t flashes slowly). After the interval t1 has expired the output relay R switches into on-position (yellow LED illuminated) and the set interval t2 begins (green LED U/t flashes fast). After the interval t2 has expired (green LED U/t illuminated) the output relay switches into off-position (yellow LED not illuminated).

If the supply voltage is interrupted before the interval t1+t2 has expired, the interval already expired is erased and is restarted when the supply voltage is next applied.



# Single shot leading and single shot trailing edge with control contact (WsWa)

The supply voltage U must be constantly applied to the device (green LED U/t illuminated).

When the control contact S is closed, the output relay R switches into on-position (yellow LED illuminated) and the set interval t1 begins (green LED U/t flashes slowly). After the interval t1 has expired, the output relay R switches into off-position (yellow LED not illuminated). If the control contact is opened, the output relay again switches into on-position (yellow LED illuminated) and the set interval t2 begins (green LED U/t flashes fast). After the interval t2 has expired the output relay switches into off-position (yellow LED not illuminated). If the control contact opens before the interval t1 has expired, t1 continuous according to the adjusted period and the single shot trailing edge impulse (t2) follows directly after t1. During the interval, the control contact can be operated any number of times.



