



GAMMA series

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
li	Asymmetric flasher pulse first
ER	ON delay and OFF delay with control input
EWu	ON delay and single shot leading edge voltage controlled
EWs	ON delay single shot leading edge with control input
WsWa	Single shot leading and single shot trailing edge with control contact

2. Time ranges

Time range	Adjustment range	
1s	50ms	1s
10s	500ms	10s
1min	3s	1min
10min	30s	10min
1h	3min	1h
10h	30min	10h
100h	5h	100h

3. Indication

Green LED U/t ON:	indication of supply voltage
Green LED U/t slow flashing:	indication of time period t1
Green LED U/t fast flashing:	indication of time period t2
Yellow LED R ON/OFF:	indication of relay output

4. Mechanical design

Self-extinguishing plastic housing, IP rating IP40

Mounted DIN-rail TS 35 according to EN 60715

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 1.5mm² with/without multicore cable end
- 2 x 2.5mm² flexible without multicore cable end

5. Input circuit

Supply voltage:	12 to 240V a.c./d.c. terminals A1(+)-A2
Tolerance:	12V-10% to 240V+10%
Rated consumption:	6VA (2W)
Rated frequency:	a.c. 48 to 63Hz
Duty cycle:	100%
Reset time:	100ms
Residual ripple of d.c.:	10%
Drop out voltage:	>30% minimum rated supply voltage
Overvoltage category:	III (in accordance with IEC 60664-1)
Rated surge voltage:	4kV

6. Output circuit

2 potential free change over contacts

Rated voltage: 250V a.c.

Switching capacity: 750VA (3A / 250V a.c.)

If the distance between the devices is less than 5mm.

Switching capacity: 1250V (5A / 250V a.c.)

If the distance between the devices is greater than 5mm.

Fusing: 5A fast acting

Mechanical life: 20 x 10⁶ operations

Electrical life: 2 x 10⁵ operations at 1000VA resistive load

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

max. 6/min at 1000VA resistive load

(in accordance with IEC 60947-5-1)

Overvoltage category: III (in accordance with IEC 60664-1)

Rated surge voltage: 4kV

7. Control contact

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: d.c. 50 ms / a.c. 100 ms

8. Accuracy

Base accuracy: ±1% of maximum scale value

Adjusting accuracy: <5% of maximum scale value

Repetition accuracy: <0.5% or ±5ms

Voltage influence: -

Temperature influence: ≤0.01% / °C

9. Ambient conditions

Ambient temperature: -25 to +55°C (in accordance with IEC 60068-1)

Storage temperature: -25 to +70°C

Transport temperature: -25 to +70°C

Relative humidity: 15% to 85%
(in accordance with IEC 60721-3-3
class 3K3)

Pollution degree: 3 (in accordance with IEC 60664-1)

Vibration resistance: 10 to 55 Hz 0.35mm

(in accordance with IEC 60068-2-6)

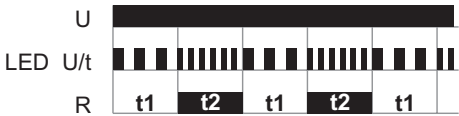
Shock resistance: 15g 11ms

(in accordance with IEC 60068-2-27)

Functions

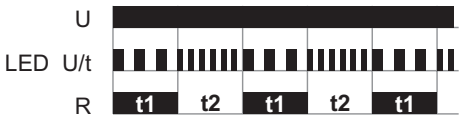
Asymmetric flasher pause first (Ip)

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.



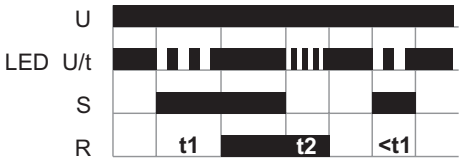
Asymmetric flasher pulse first (Ii)

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 contact (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, 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, the output relay switches into off-position (yellow LED not illuminated). If the control contact is opened before the interval t1 has expired, the interval already expired is erased and is restarted with the next cycle.



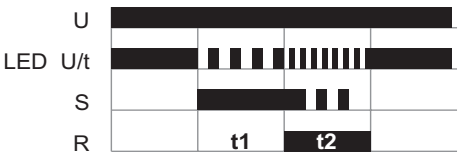
ON delay and single shot leading edge voltage controlled (EWu)

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, 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.



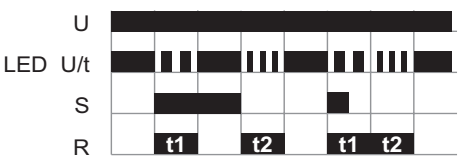
ON delay and single shot leading edge with control contact (EWs)

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, 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). 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.



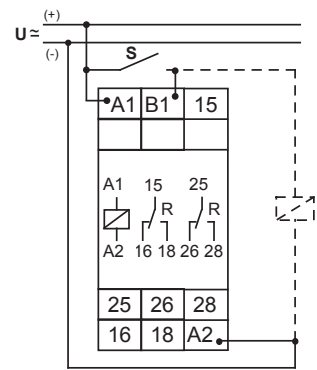
Single shot leading and single shot trailing edge with control contact (WsWa)

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

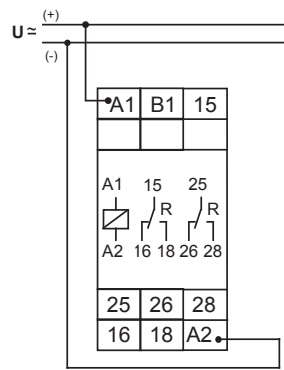


Connections

with control contact



without control contact



Dimensions

