



GAMMA series

5 Functions

4 time ranges

Zoom voltage

2 change over contacts

Width 22.5mm

Industrial design



Technical data

1. Functions

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

E	ON delay
A	OFF delay without auxiliary voltage
nWa	Maintained single shot trailing edge
nWu	Maintained single shot leading edge
nWuWa	Maintained single shot leading and single shot trailing edge

2. Time ranges

Time range	Adjustment range	
1s	100ms	1s
10s	1s	10s
1min	6s	1min
10min	1min	10min

3. Indicators

Green LED U ON: indication of supply voltage

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: 24 to 240V a.c./d.c.
 Terminals: A1(+)-A2
 Tolerance: a.c.: -15% to +10%
 d.c.: -10% to +10%
 Rated consumption: a.c.: 1VA (0.5W)
 d.c.: 0.7VA (0.7W)
 Rated frequency: a.c. 48 to 63Hz
 Duty cycle: 100%
 Reset time: 100ms
 Residual ripple to d.c.: 10%
 Drop-out voltage: ≥8V
 Overvoltage category: III (in accordance with IEC 60664-1)
 Rated surge voltage: 4kV

6. Output circuit

2 potential free change over contacts
 Rated surge: 250V a.c.
 Switching capacity: 750VA (3A / 250V a.c.)
 If the distance between the devices is less than 5mm.
 Switching capacity: 1250VA (5A / 250V a.c.)
 If the distance between the devices is greater than 5mm.
 Fusing: 8A 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. Accuracy

Base accuracy: ±1% of maximum scale value
 ≤10% for time range 1s
 Adjustment accuracy: <5% of maximum scale value
 Repetition accuracy: 1% or 100ms
 Voltage influence: -
 Temperature influence: ≤0.02% / °C

8. 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)

Note:

After transport the output relay maybe in any position. The correct operation will be given after the first cycle.

Functions

ON delay (E)

When the supply voltage U is applied, the set interval t begins (green LED U/t flashes). After the interval t has expired (green LED U/t illuminated) the output relay R switches into on-position (yellow LED illuminated). This status remains until the supply voltage is interrupted.

If the supply voltage is interrupted before the expiry of the interval t, the interval already expired is erased and is restarted when the supply voltage is next applied.

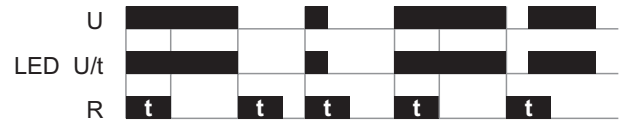


Maintained single shot leading and trailing edge (nWuWa)

When the supply voltage U is applied, the output relay R switches into on-position and the set interval t begins (green LED U illuminated). After the interval t has expired the output relay switches into off-position.

As soon as the supply voltage is interrupted the output relay switches into on-position again and the set interval t begins (green LED not illuminated). After the set interval t has expired the output relay switches into off-position.

If the supply voltage is interrupted (nWu) or reconnected (nWa) before the interval t has expired the unit continues to perform the actual single shot.



OFF-Delay without auxiliary voltage (A)

When the supply voltage U is supplied, the output relay R switches into on-position (green LED U illuminated). If the supply voltage is interrupted (green LED U not illuminated), the set interval t begins. After the set interval t has expired the output relay R switches into off-position.

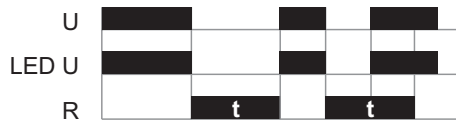
If the supply voltage is reconnected before the interval t has expired the interval already is erased and is restarted with the next cycle.



Maintained single shot trailing edge (nWa)

When the supply voltage U is supplied, the output relay R remains into off-position (green LED U illuminated). As soon as the supply voltage is interrupted the output relay switches into on-position and the set interval t begins (green LED not illuminated). After the set interval t has expired the output relay switches into off-position.

When the supply voltage is reconnected before the interval t has expired, the unit continues to perform the actual single shot.

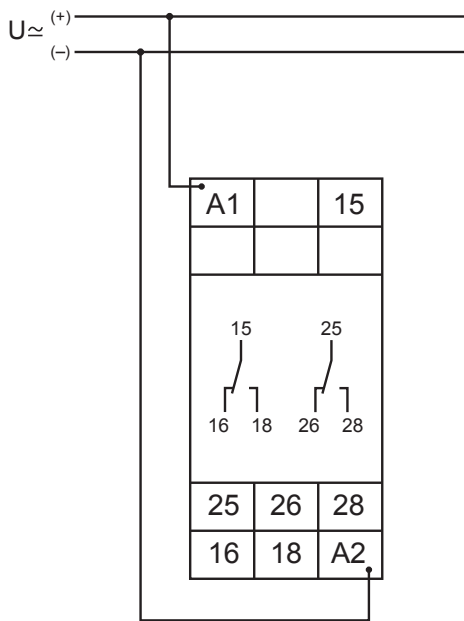


Maintained single shot leading edge (nWu)

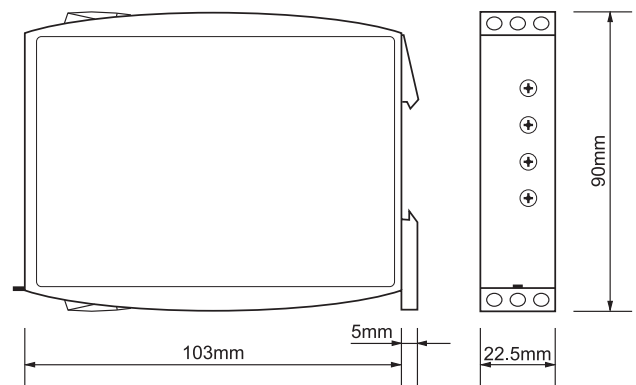
When the supply voltage U is applied (green LED U illuminated), the output relay R switches into on-position and the set interval t begins (green LED U/t flashes). After the interval t has expired the output relay switches into off-position. This status remains until the supply voltage is interrupted. If the supply voltage is reconnected before the interval t has expired, the unit continues to perform the actual single shot.



Connections



Dimensions



Ordering information

Type	Functions	Supply Voltage	Part. No.
G2ZA20 10min 24-240V a.c./d.c.	E, A, nWa, nWu, nWuWa	24-240V a.c./d.c.	120600