



ENYA series

7 Functions

7 time ranges

Wide input range

2 change over contacts

Width 35mm

Installation design



Technical data

1. Functions

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

| | |
|----|--|
| E | ON delay |
| R | OFF delay |
| Ws | Single shot leading edge with control input |
| Wa | Single shot trailing edge with control input |
| Es | ON delay with control input |
| Wu | Single shot leading edge voltage controlled |
| Bp | Flasher pause first |

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. Indicators

| | |
|------------------------|------------------------------|
| Green LED U/t ON: | indication of supply voltage |
| Green LED U/t flashes: | indication of time period |
| Yellow LED R ON/OFF: | indication of relay output |

4. Mechanical design

Self-extinguishing plastic housing, IP rating IP40
 Mounted on 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 AC/DC |
| Terminals: | A1(+)-A2 |
| Tolerance: | -10% to +10% |
| Rated consumption: | 6VA (2W) |
| Rated frequency: | AC 48 to 63Hz |
| Duty cycle: | 100% |
| Reset time: | 100ms |
| Residual ripple for DC: | 10% |
| Drop-out voltage: | >30% of minimum rated supply voltage |
| Oversvoltage category: | III (in accordance with IEC 60664-1) |
| Rated surge voltage: | 4kV |

6. Output circuit

| | |
|---------------------------------------|---|
| 2 potential free change over contacts | |
| Rated voltage: | 250V AC |
| Switching capacity: | 2000VA (8A / 250V) |
| Fusing: | 8A fast acting |
| Mechanical life: | 20 x 10 ⁶ operations |
| Electrical life: | 2 x 10 ⁵ operations at 1000VA resistive load |
| Switching frequency: | max. 6/min at 1000VA resistive load (in accordance with IEC 60947-5-1) |
| Oversvoltage category: | III (in accordance with IEC 60664-1) |
| Rated surge voltage: | 4kV |

7. Control input

| | |
|------------------------------|--------------------------------------|
| 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 50ms / AC 100ms |

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 |
| 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: | 2, if built in 3 (in accordance with IEC 60664-1) |

10. Weight

| | |
|-----------------|------|
| Single packing: | 106g |
|-----------------|------|

Functions

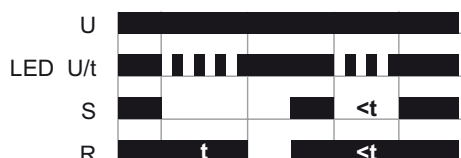
ON delay (E)

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.



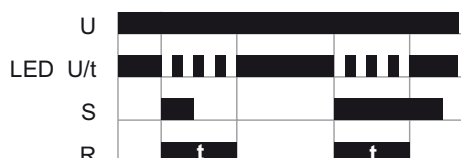
OFF delay (R)

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). If the control contact is opened, the set interval t begins (green LED U/t flashes). After the interval t has expired (green LED U/t illuminated) the output relay switches into off-position (yellow LED not illuminated). If the control contact is closed again before the interval t has expired, the interval already expired is erased and is restarted.



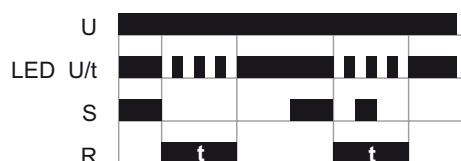
Single shot leading edge with control input (Ws)

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 t begins (green LED U/t flashes). After the interval t 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 times. A further cycle can only be started when the cycle run has been completed.



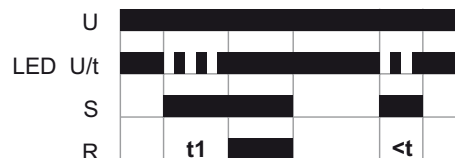
Single shot trailing edge with control input (Wa)

The supply voltage U must be constantly applied to the device (green LED U/t illuminated). Closing the control contact S has no influence on the condition of the output R. When the control contact is opened, the output relay switches into on-position (yellow LED illuminated) and the set interval t begins (green LED U/t flashes). After the interval t 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 times. A further cycle can only be started when the cycle run has been completed.



ON delay with control input (Es)

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 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 control contact is opened again. If the control contact is opened before the interval t has expired, the interval already expired is erased and is restarted with the next cycle.



Single shot leading edge voltage controlled (Wu)

When the supply voltage U is applied, the output relay R switches into on-position (yellow LED illuminated) and the set interval t begins (green LED U/t flashes). After the interval t 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 t has expired, the output relay switches into off-position. The interval already is erased and is restarted when the supply voltage is next applied.

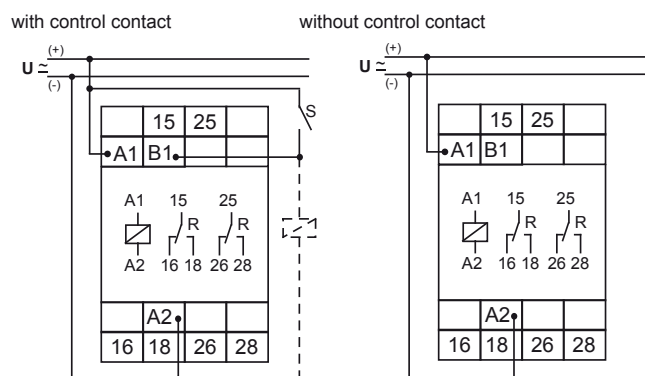


Flasher pause first (Bp)

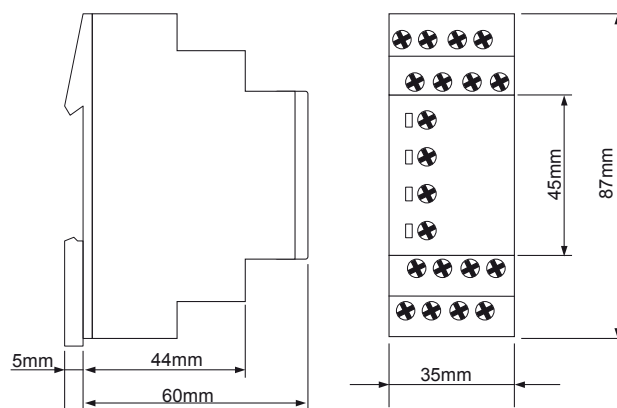
When the supply voltage U is applied, the set interval t begins (green LED U/t flashes). After the interval t has expired, the output relay R switches into on-position (yellow LED illuminated) and the set interval t begins again. After the interval t has expired, the output relay switches into off-position (yellow LED not illuminated). The output relay is triggered at a ratio of 1:1 until the supply voltage is interrupted.



Connections



Dimensions



Ordering Informations

| Types | Functiones | Supply Voltage | Part. No. |
|----------------------|--------------------------|----------------|-----------|
| E3ZM20 12-240V AC/DC | E, R, Ws, Wa, Es, Wu, Bp | 12-240V AC/DC | 111100 |