## Timers - DELTA series

Industrial Design

- Width 22.5 mm
- 4 functions
- 8 time ranges

2 change over contacts


## Technical data

1. FunctionsE ON delay
R OFF delay with control contact
Wu Single shot leading edge voltage controlled
Bp Flasher pause first

- 2. Time ranges

| Time range | Adjustment range |  |
| :--- | :--- | :--- |
| 1 s | 50 ms | 1 s |
| 10 s | 500 ms | 10 s |
| 1 min | 3 s | 1 min |
| 10 min | 30 s | 10 min |
| 1 h | 3 min | 1 h |
| 10 h | 30 min | 10 h |
| 1 d | 72 min | 1 d |
| 10 d | 12 h | 10 d |

3. Indicators

Green LED ON:
Green LED flashes: Yellow LED ON/OFF:
indication of supply voltage indication of time period indication of relay output

## 4. Mechanical design

Self-extinguishing plastic housing, IP rating IP40
Mounted on DIN-Rail TS 35 according to EN 50022
Mounting position: any
Shockproof terminal connection according to VBG 4
(PZ1 required), IP rating IP20
Initial torque: max. 1 Nm
Terminal capacity:
$1 \times 0.5$ to $2.5 \mathrm{~mm}^{2}$ with/without multicore cable end
$1 \times 4 \mathrm{~mm}^{2}$ without multicore cable end
$2 \times 0.5$ to $1.5 \mathrm{~mm}^{2}$ with/without multicore cable end
$2 \times 2.5 \mathrm{~mm}^{2}$ flexible without multicore cable end
5. Input circuit

Supply voltage:
24V DC
24V AC
110 to 240 V AC
Tolerance:
24V DC
24 V AC
110 to 240 V AC
Rated frequency:
Rated consumption:
24V AC/DC
110 V AC
230 V AC
terminals A1(+)-A2 voltage selector engaged terminals A1-A2 voltage selector engaged terminals A1-A2 voltage selector not engaged
$\pm 10 \%$
$-15 \%$ to $+10 \%$
$-15 \%$ to $+10 \%$
48 to 63 Hz
1.5VA (1W)

2VA (1W)
8VA (1.4W)
Duration of operation:
Reset time:
Residual ripple for DC:
Drop-out voltage:
00 m
00m
10\%
$>30 \%$ of the supply voltage

## 6. Output circuit

2 potential free change over contacts
Switching capacity (distance $<5 \mathrm{~mm}$ ): 1250 VA ( $5 \mathrm{~A} / 250 \mathrm{~V}$ AC)
Switching capacity (distance > 5mm): 2000VA (8A / 250V AC)

Fusing:

Mechanical life:
Electrical Life:
Switching frequency:

Insulation voltage:
Surge voltage:

8A fast acting
$20 \times 10^{6}$ operations
$2 \times 10^{5}$ operations
at 1000VA resistive load
max. 60/min at 100VA resistive load max. $6 / \mathrm{min}$ at 1000 VA resistive load (according to IEC 947-5-1)
250V AC (according to IEC 664-1)
4 kV , overvoltage category III (according to IEC 664-1)

- 7. Control contact

Connections:
Loadable:
Line length:
Control pulse length:
notential free, terminals A1-B1 yes, parallel load min. 1VA (0.5W) terminals A2-B1
max. 10 m
DC $\quad \mathrm{min} .50 \mathrm{~ms}$
AC min. 50 ms
$\pm 1 \%$ (of maximum scale value) $\leq 5 \%$ (of maximum scale value) <0.5\%
$\leq 0.01 \% /{ }^{\circ} \mathrm{C}$
Temperature influence:
9. Ambient conditions

Ambient temperature: $\quad-25$ to $+55^{\circ} \mathrm{C}$ (according to IEC 68-1)
-25 to $+40^{\circ} \mathrm{C}$ (according to UL 508)
Transport temperature: $\quad-25$ to $+70^{\circ} \mathrm{C}$
Relative humidity:
15\% to 85\%
(according to IEC 721-3-3 class 3K3)

3 (according to IEC 664-1)
Pollution degree:
10. Dimensions


## Functions

## ON delay (E)

When the supply voltage $U$ is applied, the set interval $t$ begins (green LED flashes). After the interval thas expired (green LED 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 with control contact (R)

The supply voltage $U$ must be constantly applied to the device (green LED 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 flashes). After the interval $t$ has expired (green LED 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 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 flashes). After the interval $t$ has expired (green LED illuminated) the output relay switches into off-position (yellow LED not illuminated). This status remains until the supply voltage is interrupted.
If the supply voltage is interrupted before the interval $t$ has expired, the output relay switches into off-position. The interval already expired 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 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



