



Price\* : 52.57 GBP



Main

|                           |                      |
|---------------------------|----------------------|
| Range of product          | Zelio Time           |
| Product or component type | Modular timing relay |
| Discrete output type      | Relay                |
| Device short name         | RE22                 |
| Nominal output current    | 8 A                  |

Complementary

|                               |                                                                                                                       |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Contacts type and composition | 1 C/O timed contact<br>1 C/O timed or instantaneous contact                                                           |
| Time delay type               | B<br>C<br>Di<br>Ht<br>Bw<br>Ac<br>H<br>At<br>A<br>D                                                                   |
| Time delay range              | 1...10 min<br>6...60 min<br>0.1...1 s<br>6...60 s<br>1...10 s<br>1...10 h<br>10...100 h                               |
| Control type                  | Rotary knob front panel                                                                                               |
| [Us] rated supply voltage     | 12 V AC/DC                                                                                                            |
| Voltage range                 | 0.9...1.2 Us                                                                                                          |
| Supply frequency              | 50...60 Hz +/- 5 %                                                                                                    |
| Connections - terminals       | Screw terminals, 2 x 1.5 mm <sup>2</sup> with cable end<br>Screw terminals, 2 x 2.5 mm <sup>2</sup> without cable end |
| Tightening torque             | 0.6...1 N.m conforming to IEC 60947-1                                                                                 |

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

|                                 |                                                                                                                  |
|---------------------------------|------------------------------------------------------------------------------------------------------------------|
| Housing material                | Self-extinguishing                                                                                               |
| Repeat accuracy                 | +/- 0.5 % conforming to IEC 61812-1                                                                              |
| Temperature drift               | +/- 0.05 %/°C                                                                                                    |
| Voltage drift                   | +/- 0.2 %/V                                                                                                      |
| Setting accuracy of time delay  | +/- 10 % of full scale at 25 °C conforming to IEC 61812-1                                                        |
| Control signal pulse width      | 30 ms<br>100 ms under load                                                                                       |
| Insulation resistance           | 100 MOhm at 500 V DC conforming to IEC 60664-1                                                                   |
| Recovery time                   | 120 ms on de-energisation                                                                                        |
| Immunity to microbreaks         | 10 ms                                                                                                            |
| Power consumption in VA         | 1.2 VA at 12 V AC                                                                                                |
| Power consumption in W          | 0.5 W at 12 V DC                                                                                                 |
| Breaking capacity               | 2000 VA                                                                                                          |
| Minimum switching current       | 10 mA at 5 V                                                                                                     |
| Maximum switching current       | 8 mA                                                                                                             |
| Maximum switching voltage       | 250 V                                                                                                            |
| Electrical durability           | 100000 cycles for resistive load, 8 A at 250 V, AC                                                               |
| Mechanical durability           | 10000000 cycles                                                                                                  |
| Rated impulse withstand voltage | 5 kV for 1.2...50 µs conforming to IEC 60664-1<br>5 kV conforming to IEC 61812-1                                 |
| Power on delay                  | 100 ms                                                                                                           |
| Safety reliability data         | B10d = 190000<br>MTTFd = 205.4 years                                                                             |
| Mounting position               | Any position in relation to normal vertical mounting plane                                                       |
| Mounting support                | 35 mm DIN rail conforming to EN/IEC 60715                                                                        |
| Status LED                      | LED green (flashing) for timing in progress<br>LED green (steady) for power ON<br>LED yellow for relay energised |
| Width                           | 22.5 mm                                                                                                          |
| Product weight                  | 0.09 kg                                                                                                          |

## Environment

|                                       |                                                                                                                                   |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Dielectric strength                   | 2.5 kV for 1 mA/1 minute at 50 Hz conforming to IEC 61812-1                                                                       |
| Standards                             | EN 61000-6-1<br>IEC 61812-1<br>EN 61000-6-4<br>EN 61000-6-3<br>EN 61000-6-2                                                       |
| Directives                            | 2006/95/EC - low voltage directive<br>2004/108/EC - electromagnetic compatibility                                                 |
| Product certifications                | CSA<br>CULus<br>China RoHS<br>CE<br>EAC<br>GL<br>CCC<br>RCM                                                                       |
| Ambient air temperature for operation | -20...60 °C                                                                                                                       |
| Ambient air temperature for storage   | -30...60 °C                                                                                                                       |
| IP degree of protection               | IP40 housing: conforming to IEC 60529<br>IP20 terminal block: conforming to IEC 60529<br>IP40 front face: conforming to IEC 60529 |
| Vibration resistance                  | 20 m/s <sup>2</sup> (f= 10...150 Hz) conforming to IEC 60068-2-6                                                                  |
| Shock resistance                      | 15 gn for 11 ms conforming to IEC 60068-2-27                                                                                      |
| Relative humidity                     | 93 %, without condensation conforming to IEC 60068-2-30                                                                           |
| Electromagnetic compatibility         | Electrostatic discharge immunity test - test level: 6 kV level 3 (contact discharge) conforming to EN/IEC 61000-4-2               |

Electrostatic discharge immunity test - test level: 8 kV level 3 (air discharge) conforming to EN/IEC 61000-4-2  
Fast transients immunity test - test level: 1 kV level 3 (capacitive connecting clip) conforming to IEC 61000-4-4  
Fast transients immunity test - test level: 2 kV level 3 (direct contact) conforming to IEC 61000-4-4  
Surge immunity test - test level: 1 kV level 3 (differential mode) conforming to IEC 61000-4-5  
Surge immunity test - test level: 2 kV level 3 (common mode) conforming to IEC 61000-4-5  
Radiated radio-frequency electromagnetic field immunity test - test level: 10 V level 3 (0.15...80 MHz) conforming to IEC 61000-4-6  
Electromagnetic field immunity test - test level: 10 V/m level 3 (80 MHz...1 GHz) conforming to IEC 61000-4-3  
Immunity to microbreaks and voltage drops - test level: 30 % (500 ms) conforming to IEC 61000-4-11  
Immunity to microbreaks and voltage drops - test level: 100 % (20 ms) conforming to IEC 61000-4-11  
Conducted and radiated emissions class B conforming to EN 55022

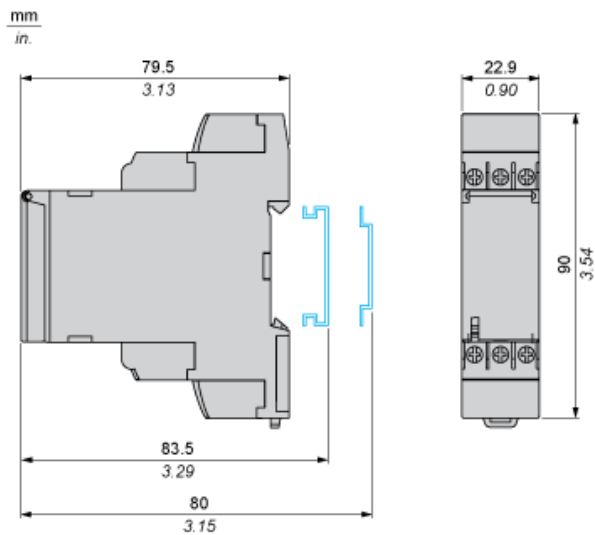
## Offer Sustainability

|                            |                                                                                                   |
|----------------------------|---------------------------------------------------------------------------------------------------|
| Sustainable offer status   | Green Premium product                                                                             |
| EU RoHS Directive          | Pro-active compliance (Product out of EU RoHS legal scope)<br><a href="#">EU RoHS Declaration</a> |
| Mercury free               | Yes                                                                                               |
| RoHS exemption information | <a href="#">Yes</a>                                                                               |
| China RoHS Regulation      | <a href="#">China RoHS declaration</a>                                                            |
| Environmental Disclosure   | <a href="#">Product Environmental Profile</a>                                                     |
| Circularity Profile        | <a href="#">End of Life Information</a>                                                           |

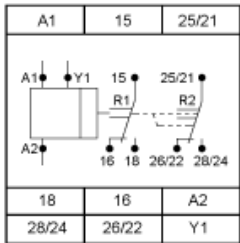
## Contractual warranty

|          |           |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

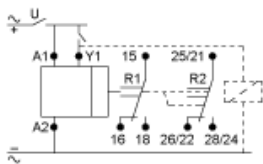
Dimensions



Internal Wiring Diagram



Wiring Diagram



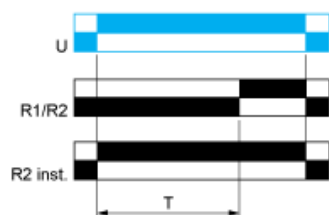
---

Function A : Power on Delay Relay

---

Description

The timing period T begins on energization. After timing, the output(s) relay close(s).



2 timed outputs (R1/R2) or 1 timed output (R1) and 1 instantaneous output (R2 inst.)

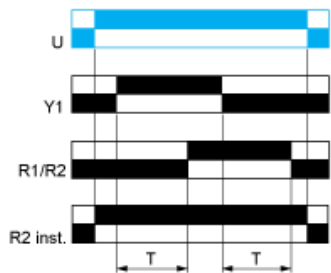
Function Ac : On- and Off-Delay Relay with Control Signal

Description

After power-up, closing of the control contact Y1 causes the timing period T to start (timing can be interrupted by operating the Gate control contact G). At the end of this timing period, the relay closes.

When control contact Y1 re-opens, the timing T starts. At the end of this timing period T

At the end of this timing period T, the output reverts to its initial position (timing can be interrupted by operating the Gate control contact G).

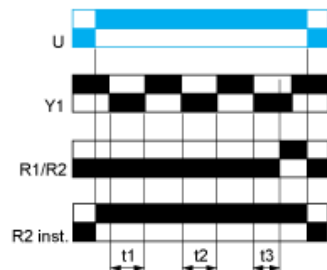


2 timed outputs (R1/R2) or 1 timed output (R1) and 1 instantaneous output (R2 inst.)

## Function At : Power on Delay Relay (Summation) with Control Signal

### Description

After power-up, the first opening of control contact Y1 starts the timing. Timing can be interrupted each time control contact closes. When the cumulative total of time periods elapsed reaches the pre-set value T, the output relay closes.

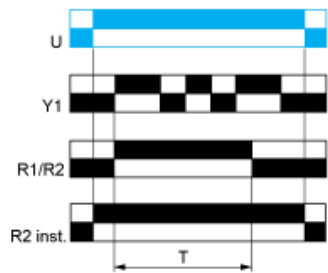


$$T = t1 + t2 + t3$$

Function B : Interval Relay with Control Signal

Description

After power-up, pulsing or maintaining control contact Y1 starts the timing T. The output relay closes for the duration of the timing period T then reverts to its initial state.



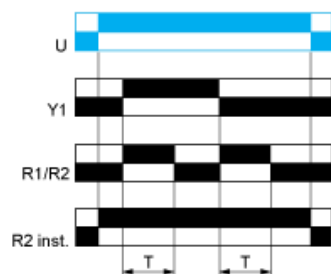
---

Function Bw : Double Interval Relay with Control Signal

---

Description

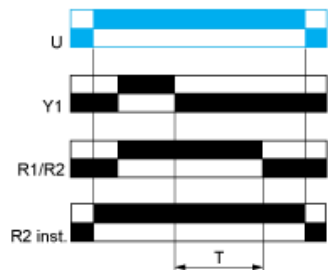
On closing and opening of control contact Y1, the output relay closes for the duration of the timing period T.



Function C : Off-Delay Relay with Control Signal

Description

After power-up and closing of the control contact Y1, the output relay closes. When control contact Y1 re-opens, timing T starts. At the end of the timing period, the output(s) relay revert(s) to its/their initial state.



2 timed outputs (R1/R2) or 1 timed output (R1) and 1 instantaneous output (R2 inst.)

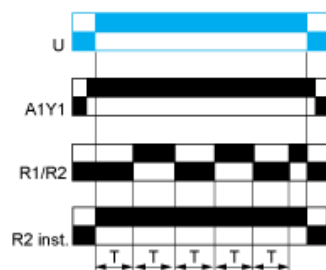
---

## Function D : Symmetrical Flasher Relay (Starting Pulse Off)

---

### Description

Repetitive cycle with two timing periods  $T$  of equal duration, with output(s) relay changing state at the end of each timing period  $T$ .



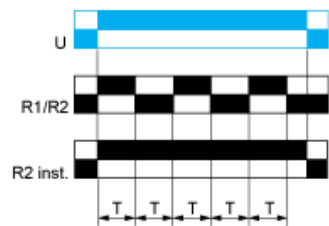
Before power-up Y1 should be permanently connected to A1.

2 timed outputs (R1/R2) or 1 timed output (R1) and 1 instantaneous output (R2 inst.)

Function D : Symmetrical Flasher Relay (Starting Pulse On)

Description

Repetitive cycle with two timing periods T of equal duration, with output(s) relay changing state at the end of each timing period T.



2 timed outputs (R1/R2) or 1 timed output (R1) and 1 instantaneous output (R2 inst.)

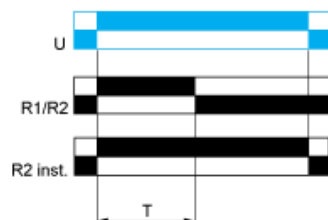
---

## Function H : Interval Relay

---

### Description

On energization of the relay, timing period T starts and the output(s) relay close(s). At the end of the timing period T, the output(s) relay revert(s) to its/their initial state



2 timed outputs (R1/R2) or 1 timed output (R1) and 1 instantaneous output (R2 inst.)

### Legend

Relay de-energised

Relay energised

Output open

Output closed

Y1 : Control contact

R1/R2 : 2 timed outputs

R2 inst. The second output is instantaneous if the right position is selected

T : Timing period

U : Supply

## Function Ht : Interval Relay (Summation) with Control Signal

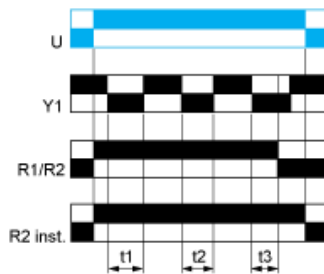
### Description

On energization, the output relay closes for the duration of a timing period T then reverts to its initial state.

Pulsing or maintaining control contact Y1 will again close the output relay.

Timing T is only active when control contact Y1 is released and so the output relay will not revert to its initial state until after a time  $t_1 + t_2 + t_3$

The relay memories the total, cumulative opening time of control contact Y1 and, once the set time T is reached, the output relay reverts to its initial state.



$$T = t_1 + t_2 + t_3$$

### Legend

Relay de-energised

Relay energised

Output open

Output closed

Y1 : Control contact

R1/R2 : 2 timed outputs

R2 inst. The second output is instantaneous if the right position is selected

T : Timing period

U : Supply