



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 1 C/O timed or instantaneous contact
Time delay type	A Ac At B Bw C D Di H Ht
Time delay range	0.1...1 s 1...10 h 1...10 min 1...10 s 10...100 h 6...60 min 6...60 s
Control type	Front panel rotary knob
[Us] rated supply voltage	24 V DC 24...240 V AC
Voltage range	0.85...1.1 Us
Supply frequency	50...60 Hz (+/- 5 %)
Connections - terminals	Screw terminals : 2 x 1.5 mm ² with cable end Screw terminals : 2 x 2.5 mm ² without cable end
Tightening torque	0.6...1 N.m conforming to IEC 60947-1
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
Minimum pulse duration	30 ms 100 ms (under load)
Insulation resistance	100 MOhm at 500 V DC conforming to IEC 60664-1
Reset time	120 ms (on de-energisation)
Immunity to microbreaks	> 10 ms
Power consumption in VA	50 VA at 240 V AC
Power consumption in W	0.7 W at 24 V DC
Breaking capacity	2000 VA
Minimum switching current	10 mA 5 V

Maximum switching current	8 mA
Maximum switching voltage	250 V
Electrical durability	100000 cycles for 8 A at 250 V AC for resistive load
Mechanical durability	10000000 cycles
[Uimp] rated impulse withstand voltage	5 kV for 1.2...50 µs conforming to IEC 60664-1 5 kV conforming to IEC 61812-1
Delay response	< 100 ms
Safety reliability data	MTTFd = 182.6 years B10d = 170000
Mounting position	Any position in relation to normal vertical mounting plane
Mounting support	35 mm DIN rail conforming to EN/IEC 60715
Status LED	Green LED (flashing) for timing in progress Green LED (steady) for power ON Yellow LED for relay energised
Width	22.5 mm
Product weight	0.09 kg

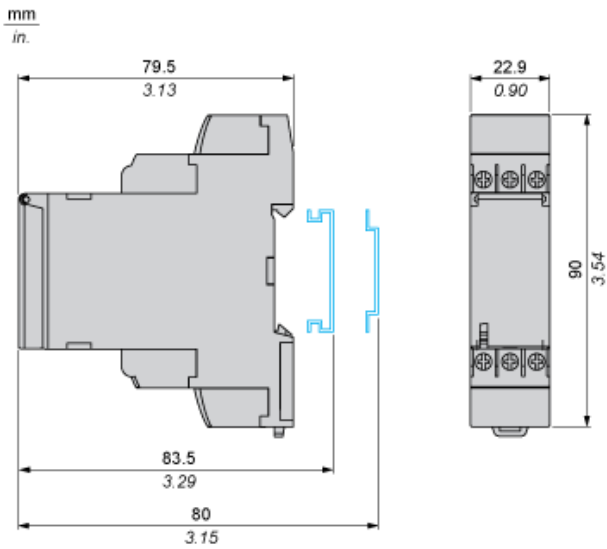
Environment

dielectric strength	2.5 kV for 1 mA/1 minute at 50 Hz conforming to IEC 61812-1
standards	EN 61000-6-1 EN 61000-6-2 EN 61000-6-3 EN 61000-6-4 IEC 61812-1
directives	2004/108/EC - electromagnetic compatibility 2006/95/EC - low voltage directive
product certifications	CCC CE CSA CULus GL RCM EAC China RoHS
ambient air temperature for operation	-20...60 °C
ambient air temperature for storage	-30...60 °C
IP degree of protection	IP20 (terminal block) conforming to IEC 60529 IP40 (housing) conforming to IEC 60529 IP40 (front face) conforming to IEC 60529
vibration resistance	20 m/s ² (f = 10...150 Hz) conforming to IEC 60068-2-6
shock resistance	15 gn (duration = 11 ms) conforming to IEC 60068-2-27
relative humidity	93 %, without condensation conforming to IEC 60068-2-30
electromagnetic compatibility	Conducted and radiated emissions, class B conforming to EN 55022 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

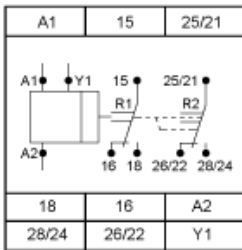
Offer Sustainability

Sustainable offer status	Green Premium product
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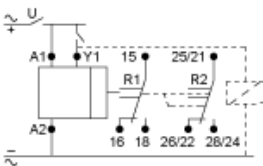
Dimensions



Internal Wiring Diagram



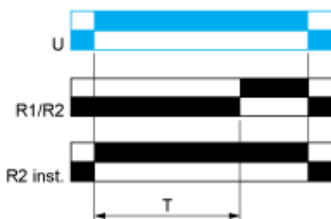
Wiring Diagram



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.)

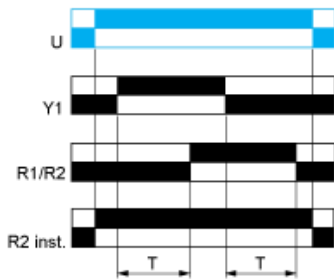
Function Ac : On- and Off-Delay Relay with Control Signal

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).

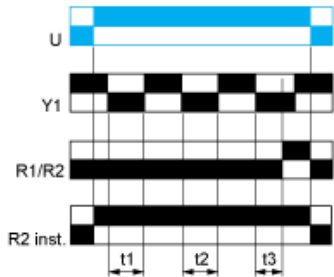


2 timed outputs (R1/R2) or 1 timed output (R1) and 1 instantaneous output (R2 inst.)

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.

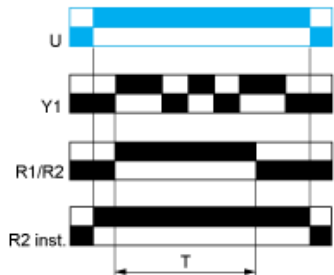


$$T = t1+t2+t3$$

Function B : Interval Relay with Control Signal

Description

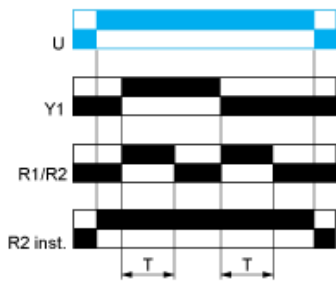
After power-up, pulsing or maintaining control contact Y1 starts the timing T. The output relay closes for the duration of the timing period T then reverts to its initial state.



Function Bw : Double Interval Relay with Control Signal

Description

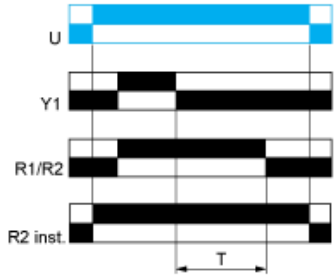
On closing and opening of control contact Y1, the output relay closes for the duration of the timing period T.



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.

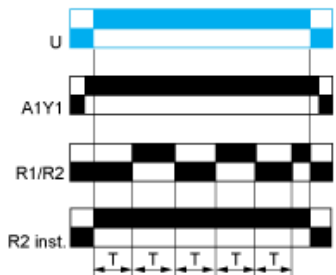


2 timed outputs (R1/R2) or 1 timed output (R1) and 1 instantaneous output (R2 inst.)

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

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T : Timing period

U : Supply

Function Ht : Interval Relay (Summation) with Control Signal

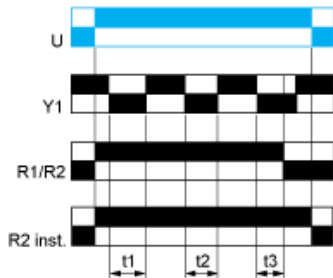
Description

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 $t1 + t2 + t3$

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.



$T = t1+t2+t3$

Legend

- Relay de-energised
- Relay energised
- Output open
- Output closed

Y1 : Control contact

R1/R2 :2 timed outputs

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

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T : Timing period

U : Supply