



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

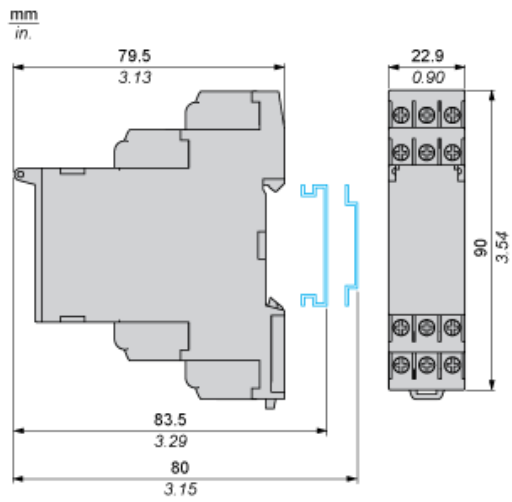
Contacts type and composition	1 C/O timed contact, cadmium free
Time delay type	L Li Lt Lit
Time delay range	0.3...3 s 1...10 s 0.05...1 s 3...30 s 10...100 s 30...300 s 3...30 min 30...300 min 3...30 h 30...300 h
Control type	External potentiometer Diagnostic button Rotary knob
[Us] rated supply voltage	24...240 V AC/DC at 50/60 Hz
Release input voltage	<= 2.4 V
Voltage range	0.85...1.1 Us
Supply frequency	50...60 Hz (+/- 5 %)
Connections - terminals	Screw terminals : 2 x 0.2...2 x 1.5 mm ² , AWG 24...AWG 16 flexible cable with cable end Screw terminals : 1 x 0.2...1 x 2.5 mm ² , AWG 24...AWG 14 flexible cable with cable end Screw terminals : 2 x 0.5...2 x 2.5 mm ² , AWG 20...AWG 14 solid cable without cable end Screw terminals : 1 x 0.5...1 x 3.3 mm ² , AWG 20...AWG 12 solid cable 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
Control signal pulse width	30 ms 100 ms (with load in parallel)
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	3 VA at 240 V AC
Power consumption in W	1.5 W at 240 V DC
Switching capacity in VA	2000 VA
Minimum switching current	10 mA 5 V DC
Maximum switching current	8 A
Maximum switching voltage	250 V AC
Electrical durability	100000 cycles for 2 A at 24 V DC-1 100000 cycles for 8 A at 250 V AC-1
Mechanical durability	10000000 cycles
Rated impulse withstand voltage	5 kV for 1.2...50 µs conforming to IEC 60664-1
Power on delay	< 100 ms
Creepage distance	4 kV/3 conforming to IEC 60664-1
Overvoltage category	III conforming to IEC 60664-1
Mounting position	Any position
Mounting support	35 mm DIN rail conforming to EN/IEC 60715
Status LED	Yellow LED (slow flashing) for timing in progress and output relay energised Yellow LED (fast flashing) for timing in progress and output relay de-energised Yellow LED (steady) for output relay energised Green LED backlight (steady) for dial pointer indication
Product weight	0.1 kg

Environment

Dielectric strength	2.5 kV for 1 mA/1 minute at 50 Hz between relay output and power supply with basic insulation conforming to IEC 61812-1
Standards	IEC 61812-1 UL 508
Directives	2004/108/EC - electromagnetic compatibility 2006/95/EC - low voltage directive
Product certifications	CCC CE CSA GL UL RCM EAC China RoHS
Ambient air temperature for operation	-20...60 °C
Ambient air temperature for storage	-40...70 °C
IP degree of protection	IP20 (terminals) conforming to IEC 60529 IP50 (front face) conforming to IEC 60529 IP40 (housing) conforming to IEC 60529
Pollution degree	3 conforming to IEC 60664-1
Vibration resistance	20 m/s ² (f = 10...150 Hz) conforming to IEC 60068-2-6
Shock resistance	5 gn (in operation) (duration = 11 ms) conforming to IEC 60068-2-27 15 gn (not operating) (duration = 11 ms) conforming to IEC 60068-2-27
Relative humidity	95 % at 25...55 °C
Electromagnetic compatibility	Immunity to microbreaks and voltage drops (test level: 100 % - 20 ms) conforming to IEC 61000-4-11 Immunity to microbreaks and voltage drops (test level: 30 % - 500 ms) conforming to IEC 61000-4-11 Fast transient bursts (test level: 2 kV, level 3 - direct contact) conforming to IEC 61000-4-4 Conducted RF disturbances (test level: 10 V, level 3 - 0.15...80 MHz) conforming to IEC 61000-4-6 Radiated radio-frequency electromagnetic field immunity test (test level: 10 V/m, level 3 - 80 MHz...1 GHz) conforming to IEC 61000-4-3 Electrostatic discharge (test level: 8 kV, level 3 - air discharge) conforming to IEC 61000-4-2 Electrostatic discharge (test level: 6 kV, level 3 - contact discharge) conforming to IEC 61000-4-2 Surge immunity test (test level: 2 kV, level 3 - common mode) conforming to IEC 61000-4-5 Surge immunity test (test level: 1 kV, level 3 - differential mode) conforming to IEC 61000-4-5 Fast transients immunity test (test level: 1 kV, level 3 - capacitive connecting clip) conforming to IEC 61000-4-4

Dimensions



Wiring Diagram



Function L: Asymmetrical Flashing Relay (Starting Pulse Off)

Description

On energisation of power supply, output(s) R starts at its/their initial state for timing duration T_r then change(s) to output(s) R close(s) for the another timing duration T_a . This cycle is repeated indefinitely until power supply removal.

Function: 1 Output



Function Li: Asymmetrical Flashing Relay (Starting Pulse On)

Description

On energisation of power supply, output(s) R starts at output(s) R close(s) for timing duration T_a then change(s) to its/their initial state for timing duration T_r . This cycle is repeated indefinitely until power supply removal. Specially for RE22R1MLMR, this Li function can only be initiated by energizing X2 permanently.

Function: 1 Output with Function Selection



Function: 1 Output

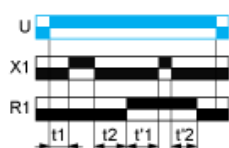


Function Lt: Asymmetrical Flashing Relay (Starting Pulse Off) & with Pause / Summation Control

Description

On energisation of power supply, output(s) R starts at its/their initial state for timing duration T_r and the timing can be interrupted / paused each time X1 energizes. When the cumulative total of time periods elapsed reaches the pre-set value T_r , then changes to output(s) R close(s). The output(s) R close state will remain for the same timing duration T_a and the timing can be interrupted / paused each time X1 energizes. When the cumulative total of time periods elapsed reaches the pre-set value T_a , the output(s) R revert(s) to its/their initial state. This cycle is repeated indefinitely until power supply removal.

Function: 1 Output



$$T = t_1 + t_2 + \dots$$

$$T = t'_1 + t'_2 + \dots$$

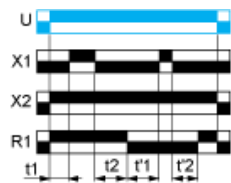
Function Lit: Asymmetrical Flashing Relay (Starting Pulse On) & Pause / Summation Control

Description

On energisation of power supply, output(s) R starts at output(s) R close(s) for timing duration T_a and the timing can be interrupted / paused each time X1 energizes. When the cumulative total of time periods elapsed reaches the pre-set value T_a , the output(s) R revert(s) to its/their

initial state. The output(s) R at initial state will remain for timing duration T_r the timing can be interrupted / paused each time X1 energizes. When the cumulative total of time periods elapsed reaches the pre-set value T_r , then changes to output(s) R close(s) This cycle is repeated indefinitely until power supply removal. Specially for RE22R1MLMR, this Li function can only be initiated by energizing X2 permanently

Function: 1 Output with Function Selection



$$T = t_1 + t_2 + \dots$$

$$T = t'_1 + t'_2 + \dots$$

Legend

Relay de-energised

Relay energised

Output open

Output closed

U Supply

-

R1 Timed output

-

Ta Adjustable On-delay

-

Tr Adjustable Off-delay

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X1 Pause / Summation control

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X2 Function Selection

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