Product data sheet
Characteristics

RE22R1MLMR
Asym. Flashing Timing Relay - 0.05s…300h - 24…240V AC/DC - 1C/O

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	Li Lit L Lt
Time delay range	0.05...1 s 30...300 min 30...300 h 30...300 s 3...30 h 0.3...3 s 3...30 min 3...30 s 10...100 s 1...10 s
Control type	Rotary knob Diagnostic button Potentiometer external
[Us] rated supply voltage	24...240 V AC/DC 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, 1 x 0.5...1 x 3.3 mm² (AWG 20...AWG 12) solid without cable end Screw terminals, 2 x 0.5...2 x 2.5 mm² (AWG 20...AWG 14) solid without cable end Screw terminals, 1 x 0.2...1 x 2.5 mm² (AWG 24...AWG 14) flexible with cable end

	Screw terminals, 2 x 0.2...2 x 1.5 mm² (AWG 24...AWG 16) flexible with 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	100 ms with load in parallel 30 ms
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 at 5 V DC
Maximum switching current	8 A
Maximum switching voltage	250 V AC
Electrical durability	100000 cycles, 8 A at 250 V, AC-1 100000 cycles, 2 A at 24 V, DC-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
Safety reliability data	MTTFd = 194 years B10d = 180000
Mounting position	Any position
Mounting support	35 mm DIN rail conforming to EN/IEC 60715
Status LED	LED backlight green (steady) for dial pointer indication LED yellow (steady) for output relay energised LED yellow (fast flashing) for timing in progress and output relay de-energised LED yellow (slow flashing) for timing in progress and output relay energised
Width	22.5 mm
Net 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	EAC UL GL China RoHS CSA RCM CCC CE
Ambient air temperature for operation	-20…60 °C
Ambient air temperature for storage	-40…70 °C
IP degree of protection	IP40 housing: conforming to IEC 60529 IP50 front face: conforming to IEC 60529 IP20 terminals: conforming to IEC 60529
Pollution degree	3 conforming to IEC 60664-1
Vibration resistance	20 m/s² (f= 10…150 Hz) conforming to IEC 60068-2-6

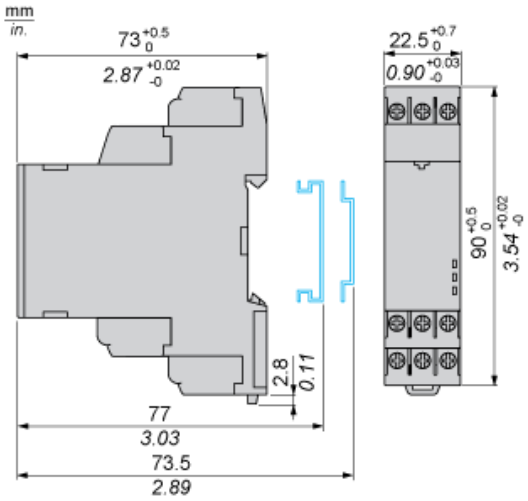
Shock resistance	15 gn not operating for 11 ms conforming to IEC 60068-2-27 5 gn in operation for 11 ms conforming to IEC 60068-2-27
Relative humidity	95 % at 25…55 °C
Electromagnetic compatibility	Fast transients immunity test - test level: 1 kV level 3 (capacitive connecting clip) conforming to IEC 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 Electrostatic discharge - test level: 6 kV level 3 (contact discharge) conforming to IEC 61000-4-2 Electrostatic discharge - test level: 8 kV level 3 (air discharge) conforming to IEC 61000-4-2 Radiated radio-frequency electromagnetic field immunity test - test level: 10 V/m level 3 (80 MHz...1 GHz) conforming to IEC 61000-4-3 Conducted RF disturbances - test level: 10 V level 3 (0.15...80 MHz) conforming to IEC 61000-4-6 Fast transient bursts - test level: 2 kV level 3 (direct contact) conforming to IEC 61000-4-4 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
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS declaration
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information

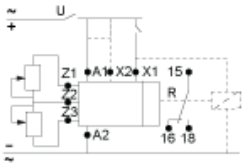
RE22R1MLMR

Dimensions



RE22R1MLMR

Wiring Diagram

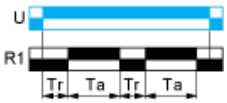


Function L: Asymmetrical Flashing Relay (Starting Pulse Off)

Description

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

Function: 1 Output

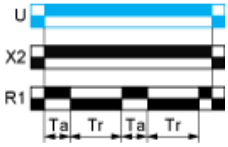


Function Li: Asymmetrical Flashing Relay (Starting Pulse On)

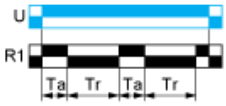
Description

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

Function: 1 Output

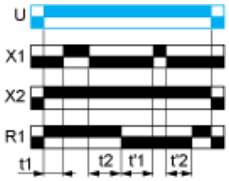
T = t1 + t2 +…
T = t'1 + t'2 +…

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 Ta and the timing can be interrupted / paused each time X1 energizes.When the cumulative total of time periods elapsed reaches the pre-set value Ta, the output(s) R revert(s) to its/their initial state.The output(s) R at intial state will remain for timing duration Tr the timing can be interrupted / paused each time X1 energizes. When the cumulative total of time periods elapsed reaches the pre-set value Tr, then changes to output(s) R close(s) This cycle is repeated indefintely 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 = t1 + t2 +…
T = t'1 + t'2 +…

Legend

Relay de-energised

Relay energised

Output open

Output closed

U - Supply
R1 - Timed output
Ta - Adjustable On-delay
Tr - Adjustable Off-delay
X1 - Pause / Summation control
X2 - Function Selection