

# RE22R1MKMR

Harmony, Modular timing relay, 5 A, 1 CO,  
0.05 s...300 s, delay on and pulse on de-  
energization, 24...240 V AC/DC



## Main

Range of product	Harmony Timer Relays
Product or component type	Dual function relay
Discrete output type	Relay
Device short name	RE22
Nominal output current	5 A

## Complementary

Contacts type and composition	1 C/O timed contact, cadmium free
Time delay type	Pulse-on de-energization Delay on de-energization
Time delay range	0.3...3 s 0.05...0.5 s 3...30 s 0.1...1 s 30...300 s 10...100 s 1...10 s
Control type	Rotary knob
[Us] rated supply voltage	24...240 V AC/DC 50/60 Hz
Release input voltage	$\leq 2.4$ 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 mm <sup>2</sup> (AWG 20...AWG 12) solid without cable end Screw terminals, 2 x 0.5...2 x 2.5 mm <sup>2</sup> (AWG 20...AWG 14) solid without cable end Screw terminals, 1 x 0.2...1 x 2.5 mm <sup>2</sup> (AWG 24...AWG 14) flexible with cable end Screw terminals, 2 x 0.2...2 x 1.5 mm <sup>2</sup> (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
Insulation resistance	100 MOhm at 500 V DC conforming to IEC 60664-1
Recovery time	50 ms on de-energisation
Immunity to microbreaks	10 ms
Power consumption in VA	3 VA at 240 V AC
Power consumption in W	2 W at 240 V DC
Switching capacity in VA	1250 VA
Minimum switching current	10 mA at 5 V DC
Maximum switching current	5 A
Maximum switching voltage	250 V AC

Electrical durability	100000 Cycles, 2 A at 24 V, DC-1 100000 cycles, 5 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
Safety reliability data	B10d = 180000 MTTFd = 194 years
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 (steady) for power ON
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	2006/95/EC - low voltage directive 2004/108/EC - electromagnetic compatibility
Product certifications	GL UL CSA RCM CCC CE EAC
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/s <sup>2</sup> (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

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	2.5 cm
Package 1 Width	8.3 cm
Package 1 Length	9.5 cm
Package 1 Weight	91.0 g
Unit Type of Package 2	S02
Number of Units in Package 2	40
Package 2 Height	15.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	4.088 kg
Unit Type of Package 3	P06
Number of Units in Package 3	640
Package 3 Height	80.0 cm
Package 3 Width	80.0 cm
Package 3 Length	60.0 cm
Package 3 Weight	73.38 kg

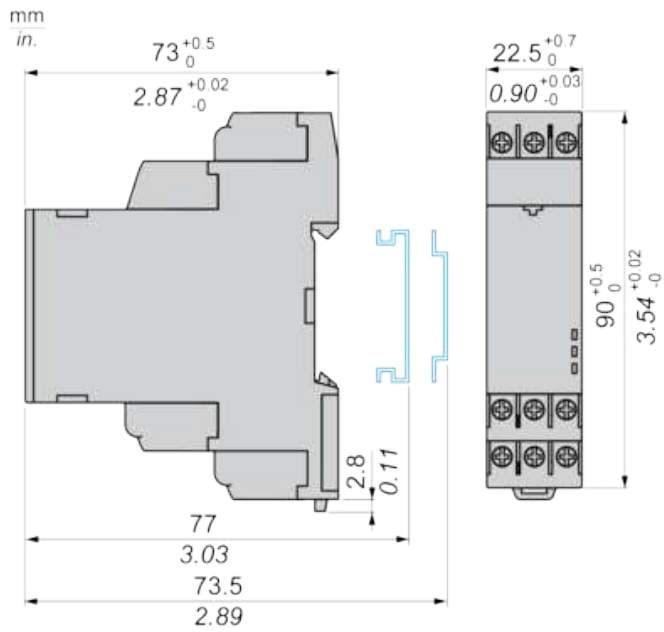
## Offer Sustainability

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

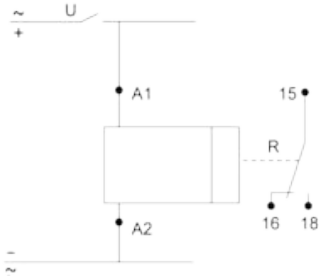
## Contractual warranty

Warranty	18 Monate
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Dimensions



## Wiring Diagram

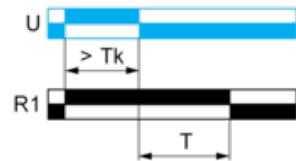


Function K: Delay On De-energization without Auxillary Supply

Description

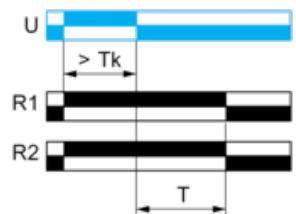
On energisation of power supply, the output(s) R close(s). On de-energisation of power supply, timing period T starts and at the end of this period, the output(s) R revert(s) to its/their initial state. The energization of power supply  $> T_k$  is necessary to sustain the timing period T.

Function: 1 Output



$T_k > 1s$

Function: 2 Outputs



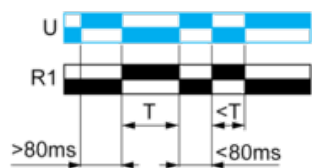
$T_k > 80ms$

Function He: Pulse-on De-energization

Description

After energisation of power supply  $> 80ms$  followed by deenergization of power supply, the output(s) R closes() for the duration of a timing period T then revert(s) to its/their initial state. Energisation of power supply  $< 80ms$  followed by deenergization of power supply, the output(s) R close(s) and WILL NOT ABLE TO sustain for the duration of a timing period T before revert(s) to its/their initial state.

Function: 1 Output



Legend

Relay de-energised

Relay energised

Output open

Output closed

U -	Supply
T -	Timing period
R1/R2 -	2 timed outputs