Product data sheet
Characteristics

RE22R1MAMR
Harmony, Modular timing relay, 8 A, 1 CO, 0.05 s…300 h, on delay, 24...240 V AC/DC

Main

Range of product	Harmony Timer Relays
Product or component type	Multifunction 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	Power on-delay
Time delay range	3...30 h 0.05...1 s 30...300 s 3...30 min 3...30 s 30...300 h 30...300 min 0.3...3 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
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

Minimum pulse duration	100 Ms with load in parallel 30 Ms
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	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
[Uimp] rated impulse withstand voltage	5 KV for 1.2…50 µs conforming to IEC 60664-1
Maximum delay response	100 Ms
Creepage distance	4 kV/3 conforming to IEC 60664-1
Overvoltage category	III conforming to IEC 60664-1
Safety reliability data	B10d = 190000 MTTFd = 205.4 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 (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	UL 508 IEC 61812-1
Directives	2006/95/EC - low voltage directive 2004/108/EC - electromagnetic compatibility
Product certifications	EAC CSA RCM UL GL CE CCC
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) conform- ing to IEC 61000-4-11 Immunity to microbreaks and voltage drops - test level: 100 % (20 ms) conform- ing to IEC 61000-4-11

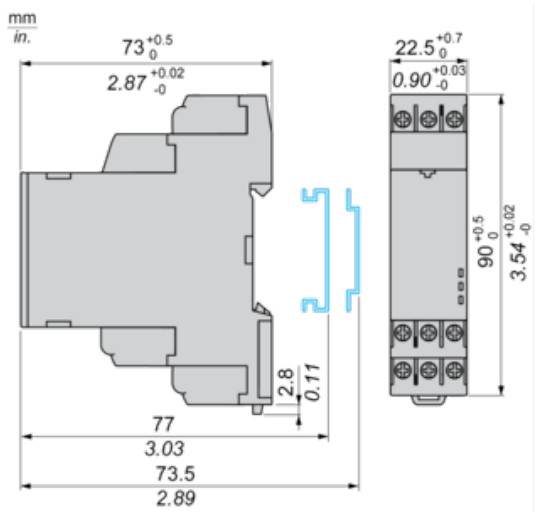
Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	99 G
Package 1 Height	8.2 Cm
Package 1 width	9.5 Cm
Package 1 Length	2.6 Cm
Unit Type of Package 2	S02
Number of Units in Package 2	40
Package 2 Weight	4.415 Kg
Package 2 Height	15 Cm
Package 2 width	30 Cm
Package 2 Length	40 Cm
Unit Type of Package 3	PAL
Number of Units in Package 3	640
Package 3 Weight	86.18 Kg
Package 3 Height	50 Cm
Package 3 width	60 Cm
Package 3 Length	80 Cm

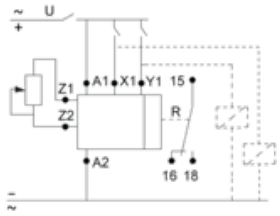
Offer Sustainability

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

Dimensions


mm
in.
73 +0.5 0
2.87 +0.02 -0
22.5 +0.7 0
0.90 +0.03 -0
90 +0.5 0
3.54 +0.02 -0
2.8
0.11
77
3.03
73.5
2.89

Wiring Diagram



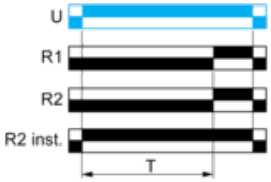
Function A: Power On-Delay

Description

On energisation of power supply, the timing period T starts. After timing, the output(s) R close(s).The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").

Function: 1 Output

Function: 2 Outputs

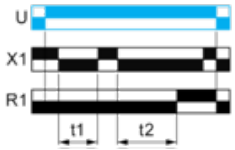


Function At: Power On-Delay with Pause / Summation Control

Description

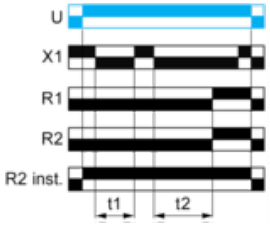
On energisation of power supply, the timing period T starts.Timing can be interrupted / paused each time X1 energizes.Except for RE17*, RE22R2AMU, RE22R2MMW, RE22R2MMU, RE22R2MJU, timing can be interrupted / paused each time Y1 energizes.When the cumulative total of time periods elapsed reaches the pre-set value T, the output(s) R close(s).The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").

Function: 1 Output with Pause / Summation Control



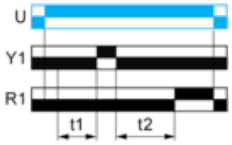
T = t1 + t2 +…

Function: 2 Outputs with Pause / Summation Control



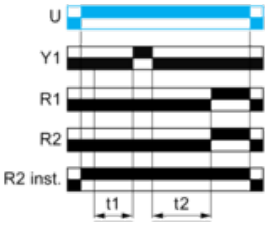
T = t1 + t2 +…

Function: 1 Output with Retrigger / Restart Control



T = t1 + t2 +…

Function: 2 Outputs with Retrigger / Restart Control



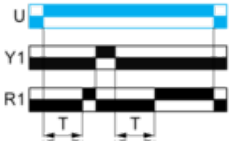
T = t1 + t2 +…

Function Aw : Power On-Delay With Retrigger / Restart Control

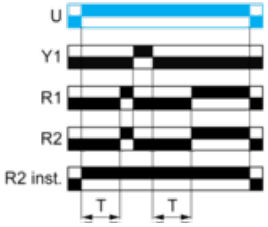
Description

On energisation of power supply, the timing period T starts.At the end of the timing period T, the output(s) R close(s).Energization of Y1 makes the output(s) R open(s).Deenergization of Y1 restarts timing period T.At the end of timing period T, the output(s) R close(s).The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST")

Function: 1 Output



Function: 2 Outputs



Legend

Relay de-energised

Relay energised

Output open

Output closed

U -	Supply
T -	Timing period
R1/R2 -	2 timed outputs
R2 inst. -	The second output is instantaneous if the right position is selected
Y1 -	Retrigger / Restart control

Product Life Status : Commercialised