## 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	330 h 0.051 s 30300 s 330 min 330 s 30300 h 30300 min 0.33 s 10100 s 110 s	
Control type	Rotary knob Diagnostic button Potentiometer external	
[Us] rated supply voltage	24240 V AC/DC 50/60 Hz	
Release input voltage	<= 2.4 V	
Voltage range	0.851.1 Us	
Supply frequency	5060 Hz +/- 5 %	
Connections - terminals	Screw terminals, 1 x 0.51 x 3.3 mm² AWG 20AWG 12) solid without cable end Screw terminals, 2 x 0.52 x 2.5 mm² AWG 20AWG 14) solid without cable end Screw terminals, 1 x 0.21 x 2.5 mm² AWG 24AWG 14) flexible with cable end Screw terminals, 2 x 0.22 x 1.5 mm² AWG 24AWG 16) flexible with cable end	
Tightening torque	5.318.85 lbf.in (0.61 N.m) IEC 60947-1	
Housing material	Self-extinguishing	
Repeat accuracy	+/- 0.5 % IEC 61812-1	
Temperature drift	+/- 0.05 %/°C	
Voltage drift	+/- 0.2 %/V	
Setting accuracy of time delay	+/- 10 % of full scale 25 °C IEC 61812-1	
Control signal pulse width	100 Ms with load in parallel 30 ms	
Insulation resistance	100 MOhm 500 V DC IEC 60664-1	
Recovery time	120 ms on de-energisation	
Immunity to microbreaks	10 ms	
Power consumption in VA	3 VA 240 V AC	
Power consumption in W	1.5 W 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, 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 1.250 μs IEC 60664-1	
Power on delay	100 ms	
Creepage distance	4 kV/3 IEC 60664-1	
Overvoltage category	III 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	Green LED backlight steady)dial pointer indication Yellow LED steady)output relay energised Yellow LED fast flashing)timing in progress and output relay de-energised Yellow LED slow flashing)timing in progress and output relay energised	
Width	0.89 in (22.5 mm)	
Net Weight	0.22 lb(US) (0.1 kg)	

#### Environment

Dielectric strength	2.5 kV 1 mA/1 minute 50 Hz between relay output and power supply basic insulation 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	-4140 °F (-2060 °C)	
Ambient Air Temperature for Storage	-40158 °F (-4070 °C)	
IP degree of protection	Housing IP40 IEC 60529 Front face IP50 IEC 60529 Terminals IP20 IEC 60529	
Pollution degree	3 IEC 60664-1	
Vibration resistance	20 m/s² 10150 Hz)IEC 60068-2-6	
Shock resistance	15 gn not operating 11 ms IEC 60068-2-27 5 gn in operation 11 ms IEC 60068-2-27	
Relative humidity	95 % 77131 °F (2555 °C)	
Electromagnetic compatibility	Fast transients immunity test 1 kV capacitive connecting clip)level 3 IEC 61000-4-4  Surge immunity test 1 kV differential mode)level 3 IEC 61000-4-5  Surge immunity test 2 kV common mode)level 3 IEC 61000-4-5  Electrostatic discharge 6 kV contact discharge)level 3 IEC 61000-4-2  Electrostatic discharge 8 kV air discharge)level 3 IEC 61000-4-2  Radiated radio-frequency electromagnetic field immunity test 10 V/m 80 MHz1  GHz)level 3 IEC 61000-4-3  Conducted RF disturbances 10 V 0.1580 MHz)level 3 IEC 61000-4-6  Fast transient bursts 2 kV direct contact)level 3 IEC 61000-4-4  Immunity to microbreaks and voltage drops 30 % 500 ms) IEC 61000-4-11  Immunity to microbreaks and voltage drops 100 % 20 ms) IEC 61000-4-11	

## Ordering and shipping details

Category	22376 - RELAYS-MEASUREMENT(RM4)	
Discount Schedule	CP2	
GTIN	3606480792427	
Nbr. of units in pkg.	1	
Package weight(Lbs)	3.49 oz (99 g)	

Returnability	Yes
Country of origin	ID

#### Packing Units

· coming or mo	
Unit Type of Package 1	PCE
Package 1 Height	3.23 in (8.2 cm)
Package 1 width	3.74 in (9.5 cm)
Package 1 Length	1.02 in (2.6 cm)
Unit Type of Package 2	S02
Number of Units in Package 2	40
Package 2 Weight	9.73 lb(US) (4.415 kg)
Package 2 Height	5.91 in (15 cm)
Package 2 width	11.81 in (30 cm)
Package 2 Length	15.75 in (40 cm)
Unit Type of Package 3	PAL
Number of Units in Package 3	640
Package 3 Weight	189.99 lb(US) (86.18 kg)
Package 3 Height	19.69 in (50 cm)
Package 3 width	23.62 in (60 cm)
Package 3 Length	31.50 in (80 cm)

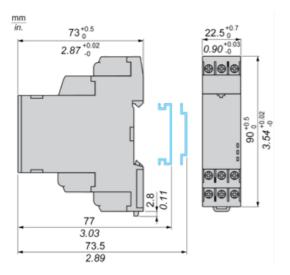
#### Offer Sustainability

Sustainable offer status	Green Premium product	
California proposition 65	WARNING: This product can expose you to chemicals including: Lead compounds, which is known to the State of California to cause cand birth defects or other reproductive harm. For more information go www.P65Warnings.ca.gov	
REACh Regulation	REACh Declaration	
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	

# Product data sheet Dimensions Drawings

## RE22R1MAMR

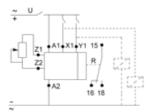
#### **Dimensions**



## Product data sheet Connections and Schema

## RE22R1MAMR

## Wiring Diagram



## Product data sheet Technical Description

## RE22R1MAMR

#### Function A: Power On-Delay

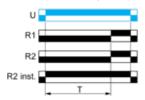
#### Description

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

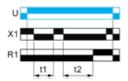


#### Function At: Power On-Delay with Pause / Summation Control

#### Description

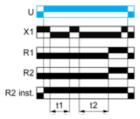
On energisation of power supply, the timing period T starts. Timing can be interrupted / paused each time X1 energizes. Except for RE17\*, RE22R2AMU, RE22R2MMU, RE22R2MMU, RE22R2MJU, timing can be interrupted / paused each time Y1 energizes. When the cumulative total of time periods elapsed reaches the 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



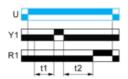
T = t1 + t2 +...

#### Function: 2 Outputs with Pause / Summation Control



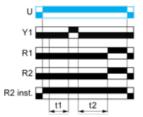
T = t1 + t2 +...

#### Function: 1 Output with Retrigger / Restart Control



T = t1 + t2 +...

#### Function: 2 Outputs with Retrigger / Restart Control



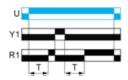
T = t1 + t2 +...

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

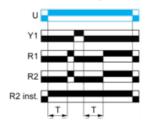
#### Description

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