

# RE22R1AMR

dual function relay, Harmony Timer Relays, A, 1 CO, 0.05sâ€¦300h, power on delay, 24...240V AC DC



## Main

|                           |                      |
|---------------------------|----------------------|
| Range of Product          | Harmony Timer Relays |
| 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                | Power on-delay   |
| Time delay range               | 3...30 s<br>30...300 s<br>10...100 s<br>0.05...1 s<br>1...10 s<br>30...300 h<br>30...300 min<br>0.3...3 s<br>3...30 h<br>3...30 min  |
| Control type                   | Rotary knob<br>Diagnostic button   |
| [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 mm <sup>2</sup> AWG 20...AWG 12) solid without cable end<br>Screw terminals, 2 x 0.5...2 x 2.5 mm <sup>2</sup> AWG 20...AWG 14) solid without cable end<br>Screw terminals, 1 x 0.2...1 x 2.5 mm <sup>2</sup> AWG 24...AWG 14) flexible with cable end<br>Screw terminals, 2 x 0.2...2 x 1.5 mm <sup>2</sup> AWG 24...AWG 16) flexible with cable end |
| Tightening torque              | 5.3...8.9 lbf.in (0.6...1 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<br>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<br>100000 cycles, 2 A at 24 V, DC-1   |
| Mechanical durability           | 10000000 cycles   |
| Rated impulse withstand voltage | 5 kV 1.2...50 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         | MTTFd = 308.2 years<br>B10d = 280000  |
| Mounting position               | Any position  |
| Mounting support                | 35 mm DIN rail conforming to IEC 60715  |
| Status LED                      | Green LED backlight steady)dial pointer indication<br>Yellow LED steady)output relay energised<br>Yellow LED fast flashing)timing in progress and output relay de-energised<br>Yellow LED slow flashing)timing in progress and output relay energised |
| Function available              | A- Power on-delay relay-1 C/O<br>Aw- Power on-delay relay w/ retrigger/restart-1 C/O  |
| Width                           | 0.9 in (22.5 mm)  |
| Net Weight                      | 0.2 lb(US) (0.1 kg)   |
| Control Type                    | With test button  |
| Number of functions             | 2   |

## 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<br>IEC 61812-1  |
| Directives                            | 2006/95/EC - low voltage directive<br>2004/108/EC - electromagnetic compatibility  |
| Product Certifications                | CE[RETURN]UL[RETURN]GL[RETURN]CCC[RETURN]EAC[RETURN]RCM[RETURN]CSA   |
| Ambient Air Temperature for Operation | -4...140 °F (-20...60 °C)  |
| Ambient Air Temperature for Storage   | -40...158 °F (-40...70 °C)   |
| IP degree of protection               | IP40 housing: conforming to IEC 60529<br>IP50 front face: conforming to IEC 60529<br>IP20 terminals: conforming to IEC 60529   |
| Pollution degree                      | 3 IEC 60664-1  |
| Vibration resistance                  | 20 m/s <sup>2</sup> 10...150 Hz)IEC 60068-2-6  |
| Shock resistance                      | 15 gn not operating 11 ms IEC 60068-2-27<br>5 gn in operation 11 ms IEC 60068-2-27   |
| Relative humidity                     | 95 % 77...131 °F (25...55 °C)  |
| Electromagnetic compatibility         | Fast transients immunity test - test level: 1 kV level 3 (capacitive connecting clip) conforming to IEC 61000-4-4<br>Surge immunity test - test level: 1 kV level 3 (differential mode) conforming to IEC 61000-4-5<br>Surge immunity test - test level: 2 kV level 3 (common mode) conforming to IEC 61000-4-5<br>Electrostatic discharge - test level: 6 kV level 3 (contact discharge) conforming to IEC 61000-4-2<br>Electrostatic discharge - test level: 8 kV level 3 (air discharge) conforming to IEC 61000-4-2<br>Radiated radio-frequency electromagnetic field immunity test - test level: 10 V/m level 3 (80 MHz...1 GHz) conforming to IEC 61000-4-3<br>Conducted RF disturbances - test level: 10 V level 3 (0.15...80 MHz) conforming to IEC 61000-4-6<br>Fast transient bursts - test level: 2 kV level 3 (direct contact) conforming to IEC 61000-4-4<br>Immunity to microbreaks and voltage drops - test level: 30 % (500 ms) conforming to IEC 61000-4-11<br>Immunity to microbreaks and voltage drops - test level: 100 % (20 ms) conforming to IEC 61000-4-11 |

## Ordering and shipping details

|                   |               |
|-------------------|---------------|
| Category          | US10CP222376  |
| Discount Schedule | 0CP2          |
| GTIN              | 3606480792366 |
| Returnability     | Yes           |
| Country of origin | ID            |

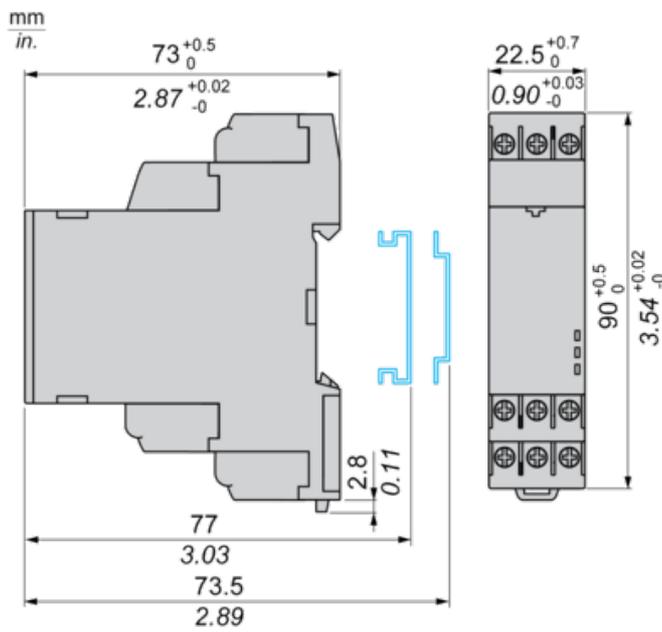
## Packing Units

|                              |                            |
|------------------------------|----------------------------|
| Unit Type of Package 1       | PCE                        |
| Number of Units in Package 1 | 1                          |
| Package 1 Height             | 1.02 in (2.6 cm)           |
| Package 1 Width              | 3.2 in (8.2 cm)            |
| Package 1 Length             | 3.7 in (9.5 cm)            |
| Package 1 Weight             | 3.2 oz (92.0 g)            |
| Unit Type of Package 2       | S02                        |
| Number of Units in Package 2 | 40                         |
| Package 2 Height             | 5.9 in (15.0 cm)           |
| Package 2 Width              | 11.8 in (30.0 cm)          |
| Package 2 Length             | 15.7 in (40.0 cm)          |
| Package 2 Weight             | 9.394 lb(US) (4.261 kg)    |
| Unit Type of Package 3       | P06                        |
| Number of Units in Package 3 | 640                        |
| Package 3 Height             | 29.5 in (75.0 cm)          |
| Package 3 Width              | 23.6 in (60.0 cm)          |
| Package 3 Length             | 31.5 in (80.0 cm)          |
| Package 3 Weight             | 169.042 lb(US) (76.676 kg) |

## Offer Sustainability

|                            |   |
|----------------------------|---|
| Sustainable offer status   | Green Premium product   |
| California proposition 65  | WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |
| REACH Regulation           | <a href="#">REACH Declaration</a>   |
| EU RoHS Directive          | Pro-active compliance (Product out of EU RoHS legal scope)  |
| 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>   |

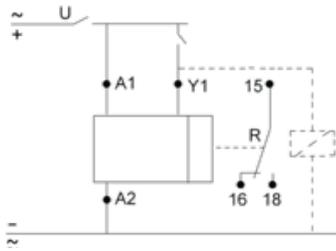
Dimensions



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Wiring Diagram

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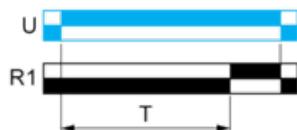


Function A: Power On-Delay

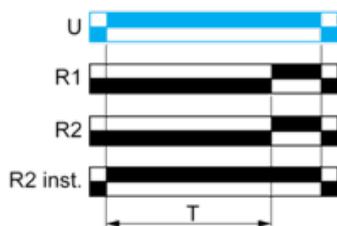
Description

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

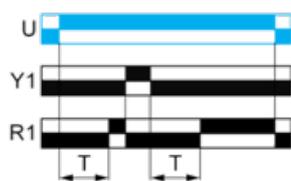


Function Aw : Power On-Delay With Retrigger / Restart Control

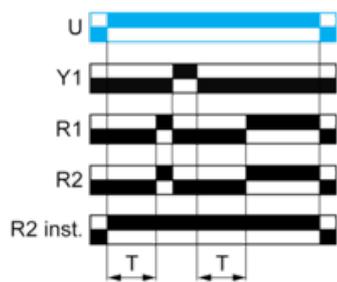
Description

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  |