

Product data sheet

Specifications



dual function relay, Harmony Timer Relays, 8A, 1CO, 0.05s...300h, screw connectors, 24...240V AC DC

RE22R1ACMR

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 | 8 A |

Complementary

| | |
|--------------------------------|--|
| Contacts Type And Composition | 1 C/O timed contact, cadmium free |
| Time Delay Type | On-delay and off-delay |
| Time Delay Range | 3...30 min 1...10 s 30...300 s 10...100 s 3...30 s 30...300 min 30...300 h 0.3...3 s 0.05...1 s 3...30 h |
| 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 |

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

| | |
|---------------------------------|---|
| 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 | B10d = 190000 MTTFd = 205.4 years |
| Mounting Position | Any position |
| Mounting Support | 35 mm DIN rail conforming to 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 |
| Number Of Functions | 2 |

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 | CE CCC GL UL CSA EAC RCM |
| 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 |

Packing Units

| | |
|------------------------------|----------|
| Unit Type Of Package 1 | PCE |
| Number Of Units In Package 1 | 1 |
| Package 1 Height | 2.6 cm |
| Package 1 Width | 8.2 cm |
| Package 1 Length | 9.5 cm |
| Package 1 Weight | 100.0 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 | 4.405 kg |
| Unit Type Of Package 3 | P06 |
| Number Of Units In Package 3 | 640 |
| Package 3 Height | 50.0 cm |
| Package 3 Width | 80.0 cm |
| Package 3 Length | 60.0 cm |
| Package 3 Weight | 79.78 kg |

Sustainability

Green Premium™ label is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO₂ products.

Guide to assessing product sustainability is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

[Learn more about Green Premium >](#)

[Guide to assess a product's sustainability >](#)



Transparency RoHS/REACH

Well-being performance

✓ Mercury Free

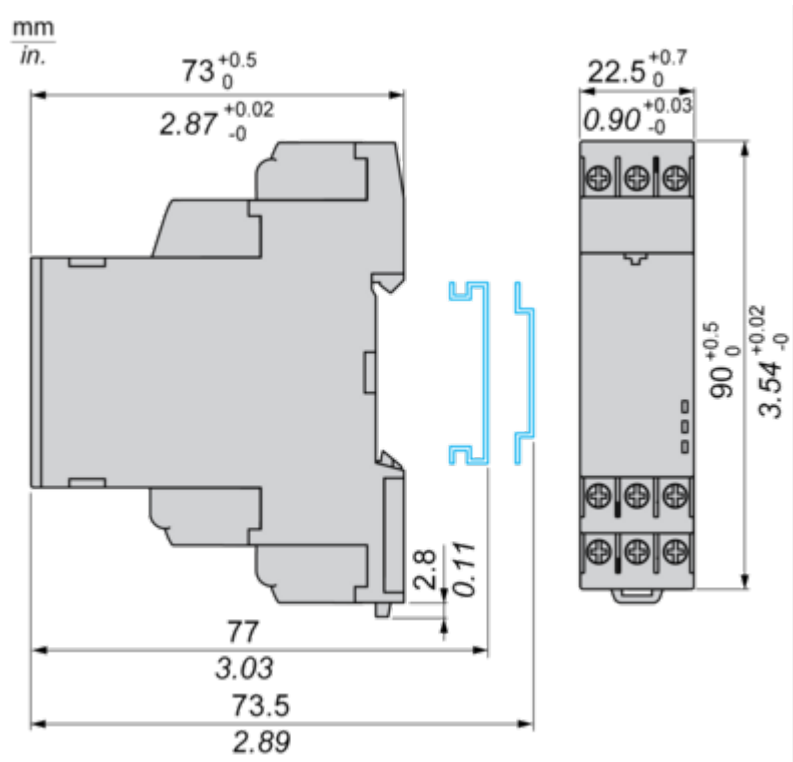
✓ Rohs Exemption Information [Yes](#)

Certifications & Standards

| | |
|---------------------------|---|
| Reach Regulation | REACH Declaration |
| Eu Rohs Directive | Pro-active compliance (Product out of EU RoHS legal scope) |
| China Rohs Regulation | China RoHS declaration |
| Environmental Disclosure | Product Environmental Profile |
| Circularity Profile | End of Life Information |
| 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 www.P65Warnings.ca.gov |

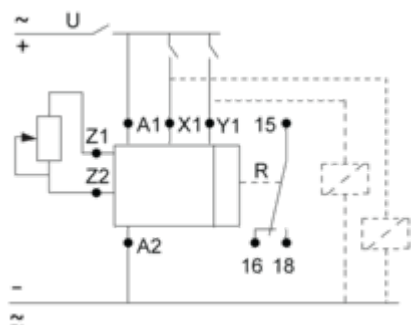
Dimensions Drawings

Dimensions



Connections and Schema

Wiring Diagram



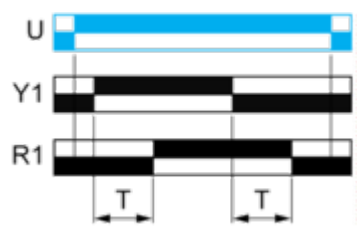
Technical Description

Function Ac: On-Delay & Off-Delay with Control Signal

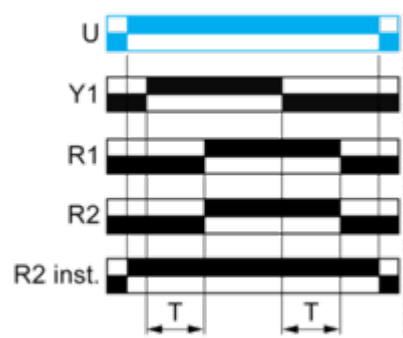
Description

After energisation of power supply and energization of Y1 causes the timing period T to start.
At the end of this timing period, the output(s) R close(s).
When deenergization of Y1, the timing T starts.
At the end of this timing period T,the output(s) R revert(s) to its/their initial position.
The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").

Function: 1 Output



Function: 2 Outputs

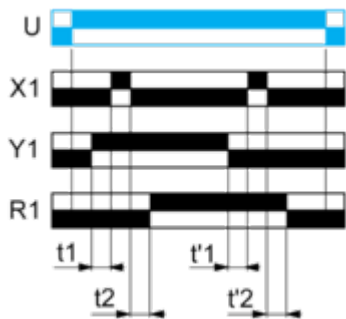


Function Act: On-Delay & Off-Delay with Control Signal & With Pause / Summation Control

Description

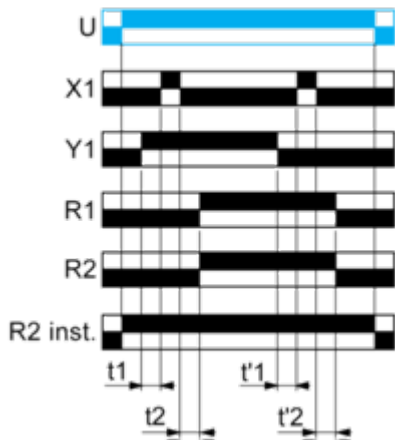
After energisation of power supply and energization of Y1 causes the timing period T to start and the timing can be interrupted / paused each time X1 energizes. When the cumulative total of time periods elapsed reaches the pre-set value T, the output(s) R close(s). When deenergization of Y1, the timing T starts and the timing can be interrupted / paused each time X1 energizes. When the cumulative total of time periods elapsed reaches the pre-set value T, the output(s) R revert(s) to its/their initial position. The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").

Function: 1 Output



$T = t_1 + t_2 + \dots$
 $T = t'_1 + t'_2 + \dots$

Function: 2 Outputs



$T = t_1 + t_2 + \dots$
 $T = t'_1 + t'_2 + \dots$

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 |

| | |
|------|-----------------------------|
| X1 - | Pause / Summation control |
| Y1 - | Retrigger / Restart control |