# Product datasheet

Specifications

## Harmony. Modular timing relay. 8 A. 1 CO. 0.05 s…300 h. dual function. 24...240 V AC/DC

RE22R1AKMR

**Price: 1,645.35 ZAR**

## 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** | Asymmetrical on-delay and off-delay |
| **Time Delay Range** | 30...300 h<br>3...30 min<br>30...300 s<br>0.05...1 s<br>30...300 min<br>10...100 s<br>0.3...3 s<br>3...30 h<br>1...10 s |
| **Control Type** | Rotary knob<br>Diagnostic button<br>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<br>Screw terminals, 2 x 0.5...2 x 2.5 mm² (AWG 20...AWG 14) solid without cable end<br>Screw terminals, 1 x 0.2...1 x 2.5 mm² (AWG 24...AWG 14) flexible with cable end<br>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<br>30 ms |
| **Insulation Resistance** | 100 MOhm at 500 V DC conforming to IEC 60664-1 |

Excluding VAT and subject to change. Please check with your local distributor through "Where to buy"

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<br>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 = 180000<br>MTTFd = 194 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<br>LED yellow (steady) for output relay energised<br>LED yellow (fast flashing) for timing in progress and output relay de-energised<br>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** | UL 508<br>IEC 61812-1 |
| **Directives** | 2006/95/EC - low voltage directive<br>2004/108/EC - electromagnetic compatibility |
| **Product Certifications** | EAC<br>CSA<br>UL<br>RCM<br>CCC<br>GL<br>CE |
| **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<br>IP50 front face: conforming to IEC 60529<br>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<br>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<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 |

## Packing Units

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|---|---|
| **Unit Type Of Package 1** | PCE |
| **Number Of Units In Package 1** | 1 |
| **Package 1 Height** | 8.64 cm |
| **Package 1 Width** | 9.91 cm |
| **Package 1 Length** | 2.79 cm |
| **Package 1 Weight** | 0.1 kg |
| **Unit Type Of Package 2** | S02 |
| **Number Of Units In Package 2** | 40 |
| **Package 2 Height** | 15 cm |
| **Package 2 Width** | 30 cm |
| **Package 2 Length** | 40 cm |
| **Package 2 Weight** | 4.691 kg |
| **Unit Type Of Package 3** | P06 |
| **Number Of Units In Package 3** | 640 |
| **Package 3 Height** | 50 cm |
| **Package 3 Width** | 80 cm |
| **Package 3 Length** | 60 cm |
| **Package 3 Weight** | 86.18 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-$CO_2$ 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

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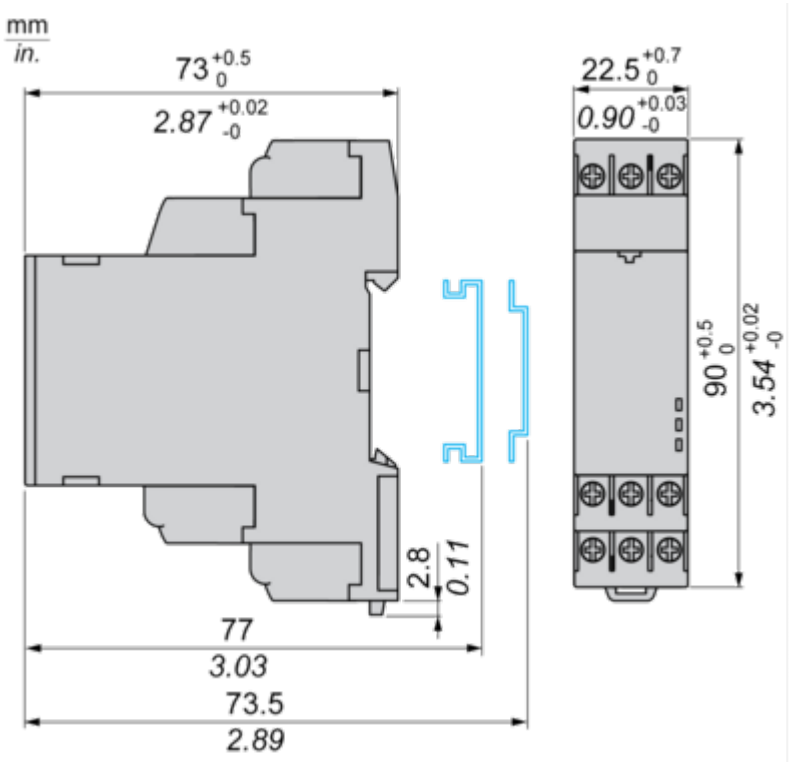
|---|---|
| **Reach Regulation** | REACh Declaration |
| **Eu Rohs Directive** | Pro-active compliance (Product out of EU RoHS legal scope) |
| **China Rohs Regulation** | China RoHS declaration |
| **Environmental Disclosure** | Product Environmental Profile |
| **Circularity Profile** | End of Life Information |

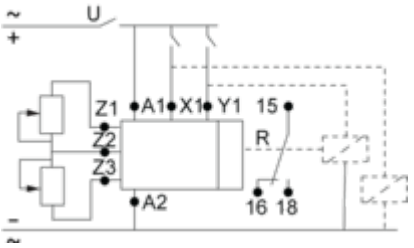
Dimensions Drawings

## Dimensions



Connections and Schema

**Wiring Diagram**



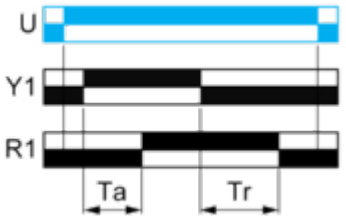
## Technical Description

### Function Ak: Asymmetrical On-Delay & Off-Delay with Control Signal

#### Description

After energisation of power supply and energization of Y1, timing starts for a period Ta.At the end of this timing period Ta, the output(s) R closes.Deenergization of Y1 causes a second timing period Tr to start.At the end of this timing period Tr, the output(s) R reverts to its initial state.

#### Function: 1 Output

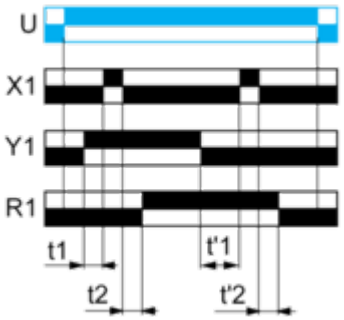


## Function Akt: Asymmetrical On-Delay & Off-Delay with Control Signal & with Pause / Summation Control

### Description

After energisation of power supply and energization of Y1, timing starts for a period Ta.At the end of this timing period Ta, the output(s) R closes.Deenergization of Y1 causes a second timing period Tr to start.At the end of this timing period Tr, the output(s) R reverts to its initial state.

### Function: 1 Output




**Ta =** t1 + t2 +…
**Tr =** t'1 + t'2 +…

### Legend

Relay de-energised
Relay energised
Output open
Output closed

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|---|---|
| U - | Supply |
| R1 - | Timed output |
| Ta - | Adjustable On-delay |
| Tr - | Adjustable Off-delay |
| X1 - | Pause / Summation control |
| Y1 - | Retrigger / Restart control |