

# Product datasheet

Specifications



## On-delay Timing Relay - 0.05s... 300h - 24...240V AC/DC - 1C/O

Local distributor code: 402995904 RE22R1AMR

### 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** Power on-delay

**Time delay range**  
3...30 s  
30...300 s  
10...100 s  
0.05...1 s  
1...10 s  
30...300 h  
30...300 min  
0.3...3 s  
3...30 h  
3...30 min

**Control type** Rotary knob  
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  
Screw terminals, 2 x 0.5...2 x 2.5 mm<sup>2</sup> (AWG 20...AWG 14) solid without cable end  
Screw terminals, 1 x 0.2...1 x 2.5 mm<sup>2</sup> (AWG 24...AWG 14) flexible with cable end  
Screw terminals, 2 x 0.2...2 x 1.5 mm<sup>2</sup> (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

<b>Insulation resistance</b>	100 MOhm at 500 V DC conforming to IEC 60664-1
<b>Recovery time</b>	120 ms on de-energisation
<b>Immunity to microbreaks</b>	10 ms
<b>Power consumption in VA</b>	3 VA at 240 V AC
<b>Power consumption in W</b>	1.5 W at 240 V DC
<b>Switching capacity in VA</b>	2000 VA
<b>Minimum switching current</b>	10 mA at 5 V DC
<b>Maximum switching current</b>	8 A
<b>Maximum switching voltage</b>	250 V AC
<b>Electrical durability</b>	100000 cycles, 8 A at 250 V, AC-1 100000 cycles, 2 A at 24 V, DC-1
<b>Mechanical durability</b>	10000000 cycles
<b>Rated impulse withstand voltage</b>	5 kV for 1.2...50 µs conforming to IEC 60664-1
<b>Power on delay</b>	100 ms
<b>Creepage distance</b>	4 kV/3 conforming to IEC 60664-1
<b>Overshoot category</b>	III conforming to IEC 60664-1
<b>Safety reliability data</b>	MTTFd = 308.2 years B10d = 280000
<b>Mounting position</b>	Any position
<b>Mounting support</b>	35 mm DIN rail conforming to EN/IEC 60715
<b>Status LED</b>	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
<b>Width</b>	22.5 mm
<b>Net weight</b>	0.1 kg

## Environment

<b>Dielectric strength</b>	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
<b>Standards</b>	UL 508 IEC 61812-1
<b>Directives</b>	2006/95/EC - low voltage directive 2004/108/EC - electromagnetic compatibility
<b>Product certifications</b>	CE UL GL CCC EAC RCM CSA
<b>Ambient air temperature for operation</b>	-20...60 °C
<b>Ambient air temperature for storage</b>	-40...70 °C
<b>IP degree of protection</b>	IP40 housing: conforming to IEC 60529 IP50 front face: conforming to IEC 60529 IP20 terminals: conforming to IEC 60529
<b>Pollution degree</b>	3 conforming to IEC 60664-1
<b>Vibration resistance</b>	20 m/s <sup>2</sup> (f= 10...150 Hz) conforming to IEC 60068-2-6
<b>Shock resistance</b>	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
<b>Relative humidity</b>	95 % at 25...55 °C

<b>Electromagnetic compatibility</b>	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
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## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Weight</b>	92.0 g
<b>Package 1 Height</b>	2.6 cm
<b>Package 1 width</b>	8.2 cm
<b>Package 1 Length</b>	9.5 cm
<b>Unit Type of Package 2</b>	S02
<b>Number of Units in Package 2</b>	40
<b>Package 2 Weight</b>	4.261 kg
<b>Package 2 Height</b>	15 cm
<b>Package 2 width</b>	30 cm
<b>Package 2 Length</b>	40 cm
<b>Unit Type of Package 3</b>	P06
<b>Number of Units in Package 3</b>	640
<b>Package 3 Weight</b>	76.676 kg
<b>Package 3 Height</b>	75 cm
<b>Package 3 width</b>	60 cm
<b>Package 3 Length</b>	80 cm

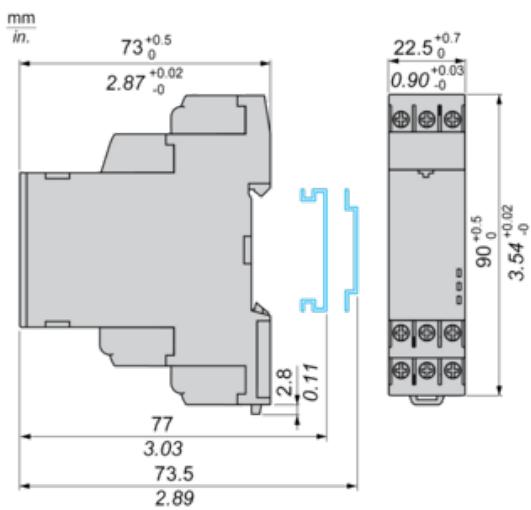
## Offer Sustainability

<b>Sustainable offer status</b>	Green Premium product
<b>REACH Regulation</b>	<a href="#">REACH Declaration</a>
<b>EU RoHS Directive</b>	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
<b>Mercury free</b>	Yes
<b>RoHS exemption information</b>	<a href="#">Yes</a>
<b>China RoHS Regulation</b>	<a href="#">China RoHS declaration</a>
<b>Environmental Disclosure</b>	<a href="#">Product Environmental Profile</a>
<b>Circularity Profile</b>	<a href="#">End of Life Information</a>

## Contractual warranty

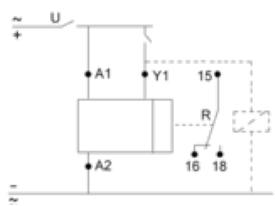
<b>Warranty</b>	18 months
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### Dimensions



**Wiring Diagram**

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### Function A: Power On-Delay

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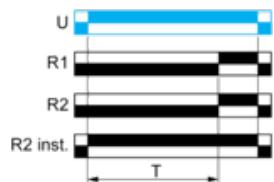
#### Description

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

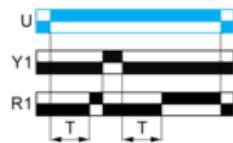
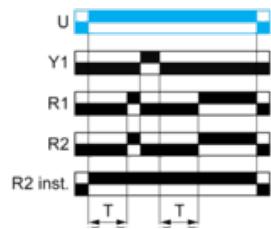


#### Function: 2 Outputs



**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