

# Product datasheet

Specifications



## Multifunction Timer Relay - 24VDC/ 24..240 V AC - 2 C/O

Local distributor code:

403001994

RE22R2MMU

**EAN Code: 3606480676581**

### Main

Range of product	Harmony Timer Relays
Discrete output type	Relay
Product or component type	Modular timing relay
Device short name	RE22
Nominal output current	8 A

### Complementary

Contacts type and composition	1 C/O timed contact 1 C/O timed or instantaneous contact
Time delay type	Power on-delay On-delay and off-delay Interval Off-delay Symmetrical flashing
Time delay range	10...100 h 6...60 s 0.1...1 s 1...10 h 1...10 s 1...10 min 6...60 min
Control type	Rotary knob front panel
[Us] rated supply voltage	24...240 V AC 24 V DC
Voltage range	0.85...1.1 Us
Supply frequency	50...60 Hz +/- 5 %
Connections - terminals	Screw terminals, 2 x 1.5 mm <sup>2</sup> with cable end Screw terminals, 2 x 2.5 mm <sup>2</sup> without 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

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

<b>Time delay type</b>	Power on-delay - A- Power on-delay relay On-delay and off-delay - Ac- On-delay and off-delay relay w/ control signal Power on-delay - At- Power on-delay relay w/ pause/summation (Y1) Interval - B- Single interval relay w/ control signal Interval - Bw- Double interval relay w/ control signal Off-delay - C- Off-delay relay w/ control signal Symmetrical flashing - D- Symmetrical flashing relay (starting pulse-off) Symmetrical flashing - Di- Symmetrical flashing relay (starting pulse-on) Interval - H- Interval relay Interval - Ht- Interval relay w/ pause/summation (Y1)
<b>Control signal pulse width</b>	30 ms 100 ms under load
<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>	50 VA at 240 V AC
<b>Power consumption in W</b>	0.7 W at 24 V DC
<b>breaking capacity</b>	2000 VA
<b>Minimum switching current</b>	10 mA at 5 V
<b>Maximum switching current</b>	8 mA
<b>Maximum switching voltage</b>	250 V
<b>Electrical durability</b>	100000 cycles for resistive load, 8 A at 250 V, AC
<b>Mechanical durability</b>	10000000 cycles
<b>Rated impulse withstand voltage</b>	5 kV for 1.2...50 µs conforming to IEC 60664-1 5 kV conforming to IEC 61812-1
<b>Power on delay</b>	100 ms
<b>Safety reliability data</b>	MTTFd = 182.6 years B10d = 170000
<b>Mounting position</b>	Any position in relation to normal vertical mounting plane
<b>Mounting support</b>	35 mm DIN rail conforming to IEC 60715
<b>Status LED</b>	LED green (flashing) for timing in progress LED green (steady) for power ON LED yellow for relay energised
<b>Function available</b>	A- Power on-delay relay-2 C/O Ac- On-delay and off-delay relay w/ control signal-2 C/O At- Power on-delay relay w/ pause/summation (Y1)-2 C/O B- Single interval relay w/ control signal-2 C/O Bw- Double interval relay w/ control signal-2 C/O C- Off-delay relay w/ control signal-2 C/O D- Symmetrical flashing relay (starting pulse-off)-2 C/O Di- Symmetrical flashing relay (starting pulse-on)-2 C/O H- Interval relay-2 C/O Ht- Interval relay w/ pause/summation (Y1)-2 C/O
<b>Width</b>	22.5 mm
<b>Net weight</b>	0.09 kg
<b>Control type</b>	With test button
<b>Number of functions</b>	10

## Environment

<b>Dielectric strength</b>	2.5 kV for 1 mA/1 minute at 50 Hz conforming to IEC 61812-1
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<b>Standards</b>	IEC 61812-1 IEC 61000-6-1 IEC 61000-6-2 IEC 61000-6-3 IEC 61000-6-4
<b>Directives</b>	2004/108/EC - electromagnetic compatibility 2006/95/EC - low voltage directive
<b>Product certifications</b>	cULus CSA CE CCC RCM GL EAC
<b>Ambient air temperature for operation</b>	-20...60 °C
<b>Ambient air temperature for storage</b>	-30...60 °C
<b>IP degree of protection</b>	IP40 housing: conforming to IEC 60529 IP20 terminal block: conforming to IEC 60529 IP40 front face: conforming to IEC 60529
<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 for 11 ms conforming to IEC 60068-2-27
<b>Relative humidity</b>	93 %, without condensation conforming to IEC 60068-2-30
<b>Electromagnetic compatibility</b>	Electrostatic discharge immunity test - test level: 6 kV level 3 (contact discharge) conforming to IEC 61000-4-2 Electrostatic discharge immunity test - test level: 8 kV level 3 (air discharge) conforming to IEC 61000-4-2 Fast transients immunity test - test level: 1 kV level 3 (capacitive connecting clip) conforming to IEC 61000-4-4 Fast transients immunity test - test level: 2 kV level 3 (direct contact) 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 Radiated radio-frequency electromagnetic field immunity test - test level: 10 V level 3 (0.15...80 MHz) conforming to IEC 61000-4-6 Electromagnetic field immunity test - test level: 10 V/m level 3 (80 MHz...1 GHz) conforming to IEC 61000-4-3 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 Conducted and radiated emissions class B conforming to EN 55022

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	2.500 cm
<b>Package 1 Width</b>	8.200 cm
<b>Package 1 Length</b>	9.500 cm
<b>Package 1 Weight</b>	105.000 g
<b>Unit Type of Package 2</b>	S02
<b>Number of Units in Package 2</b>	40
<b>Package 2 Height</b>	15.000 cm
<b>Package 2 Width</b>	30.000 cm
<b>Package 2 Length</b>	40.000 cm
<b>Package 2 Weight</b>	4.667 kg

## Logistical informations

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Country of origin ID

## Contractual warranty

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Warranty 18 months



## Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

### Environmental footprint

Total lifecycle Carbon footprint 53

Environmental Disclosure [Product Environmental Profile](#)

## Use Better

### Materials and Substances

Packaging made with recycled cardboard Yes

Packaging without single use plastic Yes

[EU RoHS Directive](#) Pro-active compliance (Product out of EU RoHS legal scope)

SCIP Number 7bdc2711-0ad2-427c-8ece-532c5e9f09d7

REACH Regulation [REACH Declaration](#)

## Use Again

### Repack and remanufacture

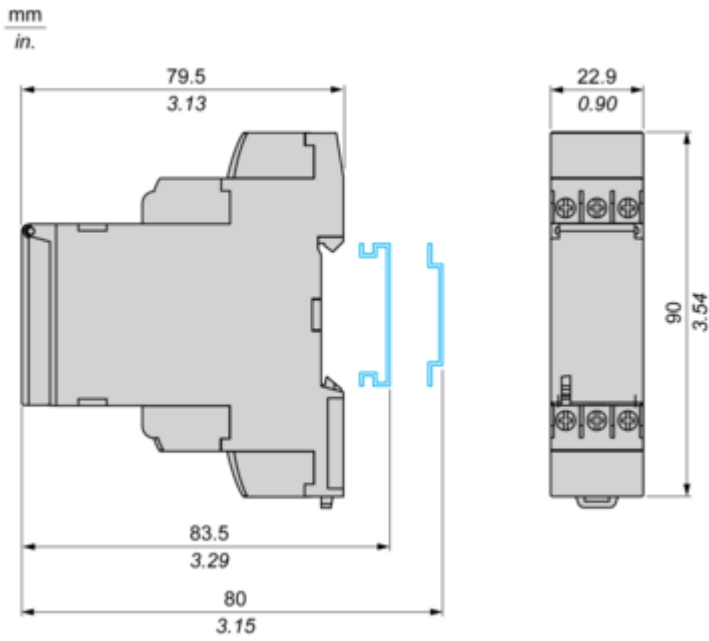
End of life manual availability [End of Life Information](#)

Take-back No

Dimensions Drawings

Dimensions

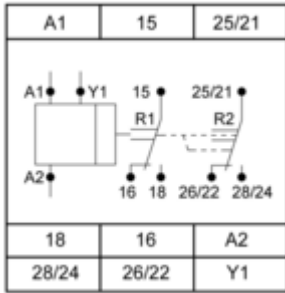
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Connections and Schema

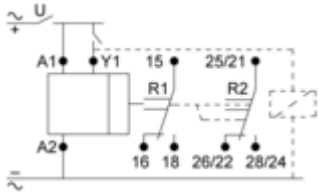
Internal Wiring Diagram

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Wiring Diagram

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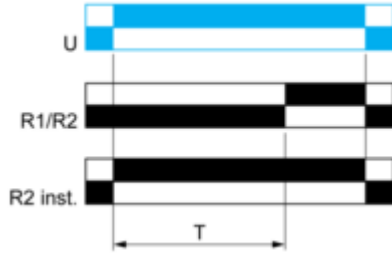
Technical Description

**Function A : Power on Delay Relay**

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**Description**

The timing period T begins on energization. After timing, the output(s) relay close(s).



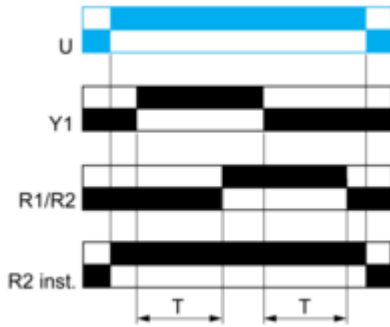
2 timed outputs (R1/R2) or 1 timed output (R1) and 1 instantaneous output (R2 inst.)

**Function Ac : On- and Off-Delay Relay with Control Signal**

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**Description**

After power-up, closing of the control contact Y1 causes the timing period T to start (timing can be interrupted by operating the Gate control contact G). At the end of this timing period, the relay closes.  
 When control contact Y1 re-opens, the timing T starts. At the end of this timing period T  
 At the end of this timing period T, the output reverts to its initial position (timing can be interrupted by operating the Gate control contact G).

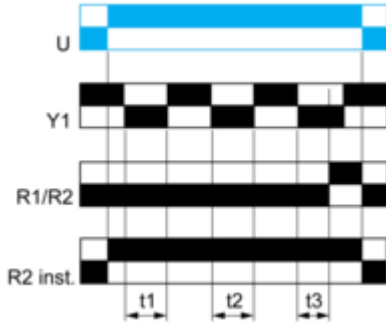


2 timed outputs (R1/R2) or 1 timed output (R1) and 1 instantaneous output (R2 inst.)

Function At : Power on Delay Relay (Summation) with Control Signal

**Description**

After power-up, the first opening of control contact Y1 starts the timing. Timing can be interrupted each time control contact closes. When the cumulative total of time periods elapsed reaches the pre-set value T, the output relay closes.



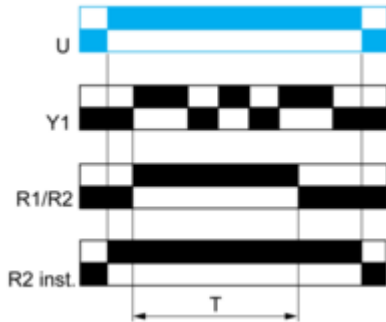
$T = t1+t2+t3$

**Function B : Interval Relay with Control Signal**

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**Description**

After power-up, pulsing or maintaining control contact Y1 starts the timing T. The output relay closes for the duration of the timing period T then reverts to its initial state.

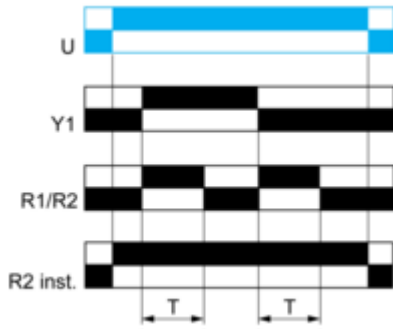


**Function Bw : Double Interval Relay with Control Signal**

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**Description**

On closing and opening of control contact Y1, the output relay closes for the duration of the timing period T.

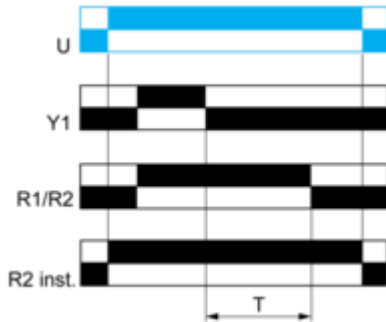


**Function C : Off-Delay Relay with Control Signal**

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**Description**

After power-up and closing of the control contact Y1, the output relay closes. When control contact Y1 re-opens, timing T starts. At the end of the timing period, the output(s) relay revert(s) to its/their initial state.



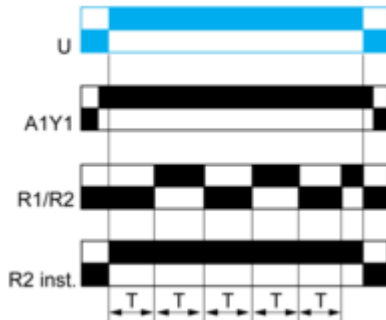
2 timed outputs (R1/R2) or 1 timed output (R1) and 1 instantaneous output (R2 inst.)

**Function D : Symmetrical Flasher Relay (Starting Pulse Off)**

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**Description**

Repetitive cycle with two timing periods T of equal duration, with output(s) relay changing state at the end of each timing period T.



Before power-up Y1 should be permanently connected to A1.

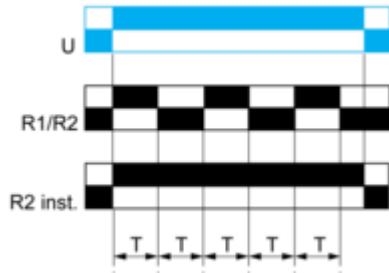
2 timed outputs (R1/R2) or 1 timed output (R1) and 1 instantaneous output (R2 inst.)

**Function D : Symmetrical Flasher Relay (Starting Pulse On)**

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**Description**

Repetitive cycle with two timing periods T of equal duration, with output(s) relay changing state at the end of each timing period T.



2 timed outputs (R1/R2) or 1 timed output (R1) and 1 instantaneous output (R2 inst.)

**Function H : Interval Relay**

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**Description**

On energization of the relay, timing period T starts and the output(s) relay close(s). At the end of the timing period T, the output(s) relay revert(s) to its/their initial state



2 timed outputs (R1/R2) or 1 timed output (R1) and 1 instantaneous output (R2 inst.)

**Legend**

- Relay de-energised
- Relay energised
- Output open
- Output closed

Y1 :	Control contact
R1/R2 :	2 timed outputs
R2 inst. :	The second output is instantaneous if the right position is selected
T :	Timing period
U :	Supply

**Function Ht: Interval Relay & With Pause / Summation Control**

**Description**

On energisation of power supply, output(s) R close(s) and timing period T starts.

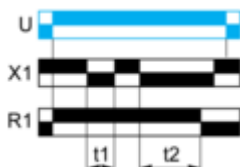
The timing can be interrupted / paused each time X1 energizes.

When the cumulative total of time periods elapsed reaches the pre-set value T, the output(s) R revert(s) to its/their initial state. Reenergization of X1 will also cause output(s) R close(s) if the time has elapsed and restart the same operation as described at the beginning.

Except for RE17\*, RE22R2MMW, RENF22R2MMW, RE22R2MMU and RE22R2MJU, timing can be interrupted / paused each time Y1 energizes.

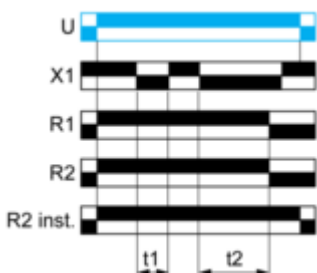
The second output (R2) can be either timed (when set to "TIMED" or instantaneous (when set to "INST").

**Function: 1 Output**



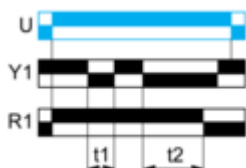
$T = t1 + t2 + \dots$

**Function: 2 Outputs**



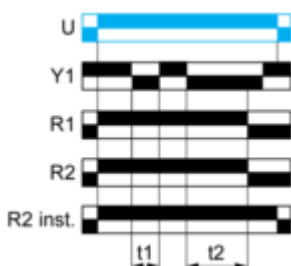
$T = t1 + t2 + \dots$

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



$T = t1 + t2 + \dots$

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



$T = t1 + t2 + \dots$

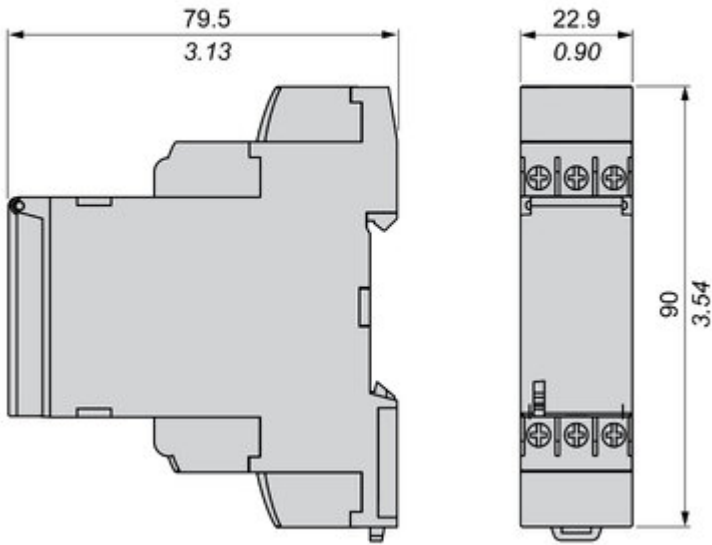


Technical Illustration

Dimensions

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mm  
in.



Offer Marketing Illustration

Product benefits / Features

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## Technical Benefits

### Harmony Timer Relay

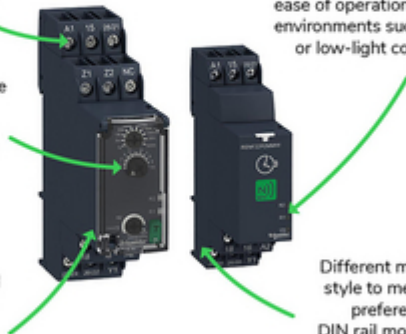
Flexible choice of screw or spring connection terminals for wiring.

One product reference covering 28 timing functions, 2 outputs, and a wide range of supply voltage 24...240 V AC/DC.

Dust and unintended human intervention avoided thanks to the IP50 lead-sealable settings protection cover.

A Dial-Pointer LED indicator that enhances ease of operation in difficult environments such as dusty or low-light conditions

Different mounting style to meet your preference:  
DIN rail mount with product width; 17.5 mm/0.69 in. 22.5 mm/0.88 in.  
Plug in mounting with socket



Offer Marketing Illustration

Product benefits / Features

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### Features

#### Harmony Timer Relay



 "Diagnostic button" to check downstream circuit immediately, shorten the commission and troubleshooting time

 Compatible with a wide range of applications including machines, buildings, water segments, and HVAC.

 Wide range of time delay for adjustment: from 0.01 s to 999 hrs.

 Compliant with IEC 60255-1 standard, and a wide array of product certifications such as UL, CE, CSA, EAC.

 Unprecedented accuracy, predictive maintenance, and superior security.

Image of product / Alternate images

Alternative

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