Catalog | May 2024

Harmony Timer Relays

Near Field Communication and conventional Timer Relays

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Harmony

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- Harmony HMI Operator Terminals, IPC and EdgeBox
- Harmony Signaling Devices
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- Harmony Safety

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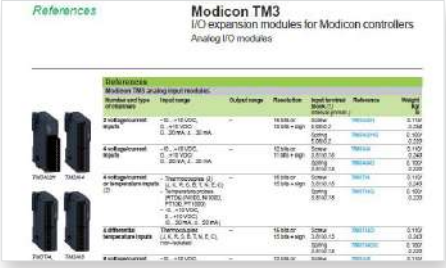

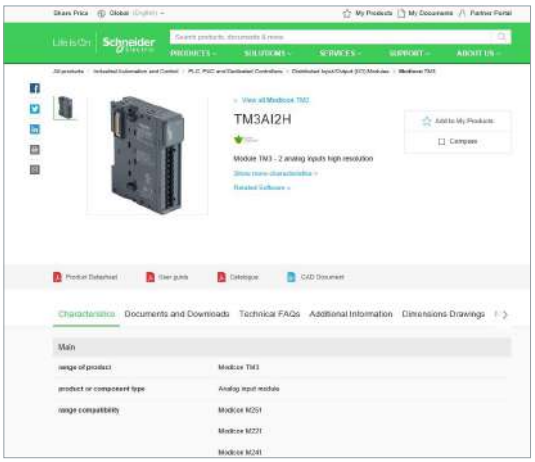

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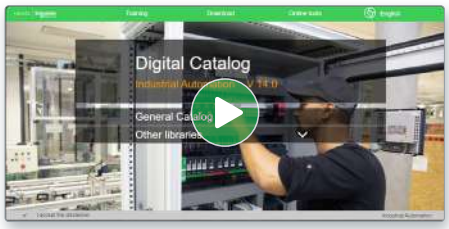
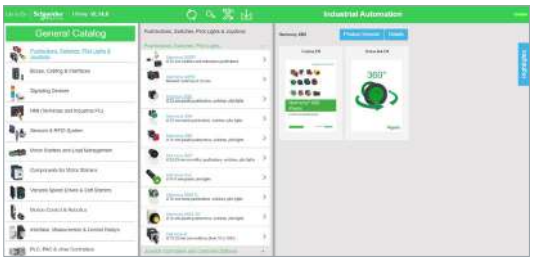
- Characteristics, Dimensions and drawings, Mounting and clearance, Connections and schemas, Performance curves
- Product image, Instruction sheet, User guide, Product certifications, End of life manual

Find your catalog





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Harmony Timer Relays

Near Field Communication and conventional Timer Relays

Harmony Timer Relays

Innovative, ergonomic and configurable offer with single or multifunction types

Harmony Timer are timing relays designed to time events in industrial automation systems by closing and opening contacts before, during, or after a set time period. They are designed for hard-wired logic automated systems to complement the functions of industrial progammable logic controllers (PLCs).

They are suitable for a wide range of applications, including:

- Machines: single machine, and industrial automation and processes
- Buildings: lighting control, access control door locks, roller shutters
- Water segment: pumping and irrigation systems
- HVAC: fans and centralized water systems

Depending on the product model, these relays support multiple time ranges.

> Modular DIN rail mounted timing relays

RE17, RENF, RE22

> Miniature plug-in timing relays

REXL

> Panel mounted/plug-in timing relays

RE48A

The Harmony Timer relays also feature:

- Wide power supply range from 24 to 240 V ≂
- Single or multi timing ranges from 0.02 s to 999 hrs
- Screw or spring connection terminals
- Relay or solid-state output
- Conformity to IEC 61812-1 and EN 61812-1 standards
- UL, CSA, GL, RCM, EAC, CCC, and China ROHS compliance
- Easy to set up with wiring diagrams on the side of the product

Harmony RE22 Timing relays

Modular relays with unique features

> Innovative: dial pointer LED indicator and diagnostic button to assist setup and troubleshooting
> Compact and reliable
> Energy efficient: simple to implement, operate, and maintain
> Compliance with standards and certifications
> QR code embedded in instruction sheet for easy setup

Dial pointer LED indicator

Diagnostic button

Harmony Timer Relays → A complete range of reliable and flexible offers

Harmony NFC Timing Relay: As simple as
1 **Install**
2 **Open app**
3 **Set parameters**

Harmony NFC Timing Relays

The NFC timing relay is designed to time events in industrial automation systems by closing or opening contacts before, during, or after a set timing period.

The mobile app, Ecostruxure Industrial Device, created for NFC timing relay is Android and iOS enabled and can be downloaded on the phone from Google Play Store or Apple Store.

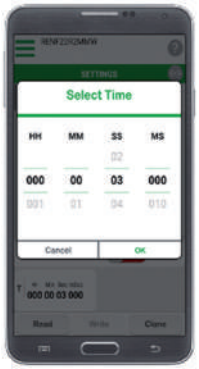
Simplify product selection

- One product reference
- 28 timing functions
- 2 outputs
- Wide range of voltage supplied (24...240 V ⎓ /∿)

Achieve unprecedented accuracy

- Digitized setting eliminate the need for screw driver
- Timing can be set by hour, minute, second, or millisecond

Select Function



Select Time

Diagnose your relay

- Read relay status
- Overwrite the output
- Manage relays without power

Security

- Four-digit password protection

Diagnose

Security setting

Save valuable time

- Clone settings
- Store settings
- Share settings through SMS

Harmony Timer Relays

Near Field Communication and conventional Timer Relays

Applications	**These timing relays enable simple automation cycles to be set up using wired logic. They can also be used to complement the functions of PLCs.**			
Output	**Solid state** **Timing relays with solid state output reduce the amount of wiring required (wired in series). The durability of these timing relays is independent of the number of operating cycles.**		**Relay** **Relay outputs provide complete isolation between the supply circuit and the output. It is possible to have several output circuits.**	
Type	Modular and DIN rail mounted			
Connection	Screw type	Spring type	Screw type	Spring type
Time ranges	□ *7 ranges:* 1 s, 10 s, 1 min, 10 min, 1 h, 10 h, 100 h		Depending on model: □ *6 ranges:* 1 s, 10 s, 1 min, 10 min, 1 h, 10 h □ *7 ranges:* 1 s, 10 s, 1 min, 10 min, 1 h, 10 h, 100 h	
Timer Relay type	**RE17L●●●**	**RE17L●●●S**	**RE17R●●●**	**RE17R●●●S**
Pages	23		23	

These timing relays enable simple automation cycles to be set up using wired logic. They can also be used to complement the functions of PLCs.				
Relay **Relay outputs provide complete isolation between the supply circuit and the output. It is possible to have several output circuits.**				
Modular and DIN rail mounted			Miniature and plug-in	Analogue and panel-mounted/plug-in
Screw type				
0.05 s to 999 h	Depending on model: □ *7 ranges:* 1 s, 10 s, 1 min, 10 min, 1 h, 10 h, 100 h □ *7 ranges:* 1 s, 3 s, 10 s, 30 s, 100 s, 300 s, 10 min □ *7 ranges:* 0.5 s 1 s 3 s 10 s 30 s 100 s 300 s □ *1 range:* 30 s □ *10 ranges:* 1 s, 3 s, 10 s, 30 s, 100 s, 300 s, 30 min, 300 min, 30 h, 300 h	□ *7 ranges:* 0.1 s...1 s, 1 s...10 s, 0.1 min...1 min, 1 min...10 min, 0.1 h...1 h, 1 h...10 h, 10 h...100 h	□ *14 ranges:* 1.2 s, 3 s, 12 s, 30 s, 120 s, 300 s, 12 min, 30 min, 120 min, 300 min, 12 h, 30 h, 120 h, 300 h
RENF	**RE22**	**REXL**	**RE48A**	
23	24	26	27	

Harmony Timer Relays

Near Field Communication and conventional Timer Relays

DIN rail mounted timing relays

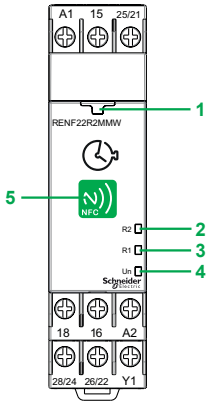
RE17 *RENF* *RE22*

Miniature plug-in timing relays with sockets

REXL *RXZE2M114*

Panel-mounted/plug-in timing relays

RE48A



Harmony NFC Timing Relay

Harmony NFC timing relay with Smartphone mobile app

Presentation

A timing relay is a component that is designed to time events in industrial automation systems by closing or opening contacts before, during, or after a set timing period. There are three main families of timing relays:

- DIN rail mounted Modular relays (**RE17**, **RENF**, and **RE22**) designed for mounting on DIN rails in an enclosure
- Miniature plug-in relays (**REXL**) designed to be plugged into sockets
- Panel mounted/plug-in relays (**RE48A**) designed for mounting on the front panel to give users easy access to the settings

These relays have 1, 2, or 4 outputs. For some references from RE22 and RE48 range, the second output can be either timed or instantaneous. If the power is switched off during the timing period, the relay reverts to its initial position.

The Harmony Timer simple-to-use innovative NFC timing relay is enabled and controlled by the Near Field Communication technology available in present-day-smartphones.

Application examples:
- opening of automatic doors
- alarm
- lighting in toilets
- car park barriers, etc.

Harmony NFC timing relay description

1 Pairing indication LED (Green)
2 Output 2 indication LED (Amber)
3 Output 1 indication LED (Amber)
4 Power supply indication LED (Green)
5 NFC antenna location

Harmony NFC timing relay mobile application

To use the NFC timing relay, you must use a mobile device equipped with Android OS v7.0 and above or iOS v14.5 and above.

Using the mobile, scan the QR code below or search for the “Ecostruxure Industrial Device” application on the Google Play Store or Apple Store. Refer to the Instruction Manual for more information.

GET IT ON Google Play

Download on the App Store

With the app installed in your mobile device, you can retrieve/configure and lock/unlock the product settings, and diagnose product status. All related timing function diagrams, wiring diagram and help contents can be obtained from the app.

Note: *The default function for NFC Timer product is Function A (Power on-delay) and T=3s.*

Definitions

The following definitions explain relay operation:

■ **Relay output:**
This is the most common type of output. When the relay is energized, the moving armature is attracted by the coil and so actuates the contacts, which change state. When the relay is de-energized, both the armature and the contacts revert to their initial position. This type of output allows complete isolation between the power supply and the output. There are three types of output contact:

CO: Changeover contact, i.e. when the relay is de-energized, the circuit between the common point C and NC is closed and when the relay is operating (coil energized), it closes the circuit between the common point C and the NO contact.	
NC: A contact that is closed without being actuated is called a **Normally Closed (NC)** contact.	
NO: A contact that closes when actuated is called a **Normally Open (NO)** contact.	

■ **Solid state output:**
This output is entirely electronic and involves no moving parts; service life is therefore increased.

■ **Breaking capacity:**
The current value that a contact is capable of breaking in specified conditions.

■ **Mechanical durability:**
The number of mechanical operating cycles of the contact or contacts.

■ **Minimum switching capacity** (or minimum breaking capacity):
This is the minimum required current that can flow through the contacts of a relay.

■ **X1/X2/Y1/Gate control input:**
Control input allows timing in progress to be interrupted without it being reset.

Functions

Timing functions are identified by letters. For the complementary functions, select the main timing function using the selection dial in the front panel; refer to functional diagrams for connection.

Main timing functions	Complementary functions *(1)*	Definitions
A *(2)*		Power on-delay relay
	Ac	On-delay and off-delay relay with control signal
	Act	On-delay and off-delay relay with control signal and pause/summation control signal
	Ad	Pulse delayed relay with control signal
	Ah	Pulse delayed relay (single cycle) with control signal
	Ak	Asymmetrical on-delay and off-delay relay with control signal
	Akt	Asymmetrical on-delay and off-delay relay with control signal and pause/summation control signal
	At	Power on-delay relay with pause/summation control signal
	Aw	Power on-delay relay with retrigger/restart control signal
B *(2)*		Single interval relay with control signal
	Bw	Double interval relay with control signal
C *(2)*		Off-delay relay with control signal
	Ct	Off-delay relay with control signal and pause/summation control signal
D *(2)*		Symmetrical flashing relay (starting pulse-off)
	Di *(2)*	Symmetrical flashing relay (starting pulse-on)
	Dit	Symmetrical flashing relay (starting pulse-on) with pause/summation control signal
	Diw	Symmetrical flashing relay (starting pulse-on) with retrigger/restart control signal
	Dt	Symmetrical flashing relay (starting pulse-off) with pause/summation control signal
	Dw	Symmetrical flashing relay (starting pulse-off) with retrigger/restart control signal
H *(2)*		Interval relay
	He	Pulse-on de-energization
	Ht	Interval relay with pause/summation control signal
	Hw	Ineterval relay with retrigger/restart control signal
K		Delay on de-energization (without auxiliary supply)
L *(2)*		Asymmetrical flashing relay (starting pulse-off)
	Li *(2)*	Asymmetrical flashing relay (starting pulse-on)
	Lit	Asymmetrical flashing relay (starting pulse-on) with pause/summation control signal
	Lt	Asymmetrical flashing relay (starting pulse-off) with pause/summation control signal

(1) Complementary functions enhance the main timing functions.
*Example: **Ac**: timing after closing and opening of control contact.*
(2) The most commonly used timing functions.

Definitions (continued)

Main timing functions	Complementary functions *(1)*	Definitions
N		Safe-guard relay
O		Delayed Safe-guard relay
P		Pulse delayed relay with fixed pulse length
	Pt	Pulse delayed relay with fixed pulse length and pause/summation control signal
Q		Star-delta relay (2 NO outputs with same common)
	Qc	Star-delta relay (1 CO output)
	Qe	Star-delta relay (1 NC + 1 NO outputs with split common)
	Qg	Star-delta relay (2 CO outputs with same common)
	Qgt	Star-delta relay (2 CO outputs with same common) with pause/summation control signal
	Qt	Star-delta relay (2 CO outputs with split common)
	Qtt	Star-delta relay (2 CO outputs with split common) with pause/summation control signal
T	Tl	Bistable relay with control signal on
	Tt	Retriggerable bistable relay with control signal on
W		Interval relay with control signal off
	Wt	Interval relay with control signal off and pause/summation control signal

Selection table

Selection criteria

- **Functions** (on-delay or off-delay, counter, flashing, etc.)
- **Supply voltage** (example: ⎓ 12 V…240 V)
- **Timing range** for a timing relay (for example; 0.05 s…100 h)
- **Type of output** (contact or solid state) and required **Number of contacts**
- **Rated current** or **Breaking capacity** of contacts, expressed in Amperes. This is the maximum current that may flow through the contacts.

Functions	Timing range	Supply voltage	Type of output	Rated current	Relay
A	0.1 s…100 h	⎓ 12 V	2 CO contacts	5 A	REXL2TMJD
			4 CO contacts		
		⎓ 24 V	2 CO contacts		REXL2TMBD
			4 CO contacts		REXL4TMBD
		∿ 24 V	2 CO contacts		REXL2TMB7
			4 CO contacts		REXL4TMB7
		∿ 120 V	2 CO contacts		REXL2TMF7
			4 CO contacts		REXL4TMF7
		∿ 230 V	2 CO contacts		REXL2TMP7
			4 CO contacts		REXL4TMP7
		⎓ 24…240 V	1 solid state output	0.7 A	RE17LAMW
					RE17LAMWS
	0.02 s…300 h	⎓ 24…240 V	2 CO contacts	5 A	RE48ATM12MW
A, Ac, At, B, Bw, C, D, Di, H, Ht	0.1 s…100 h	⎓ 24…240 V	1 solid state output	0.7 A	RE17LMBM
		⎓ 12 V	1 CO contact	8 A	RE17RMJU
		⎓ 12…240 V			RE17RMMW
					RE17RMMWS
		⎓ 24 V/ ∿ 24…240 V			RE17RMMU
					RE17RMMUS
			2 CO contacts		RE22R2MMU
		⎓ 12 V			RE22R2MJU
		⎓ 12…240 V			RE22R2MMW

(1) Complementary functions enhance the main timing functions.
*Example: **Ac**: timing after closing and opening of control contact.*

***Note**: References ending with "S" are spring terminals; references without "S" are screw terminals.*
Example: RE17LAMWS is timing relay with spring terminal and RE17LAMW is timing relay with screw terminal.

Selection table (continued)

Functions	Timing range	Supply voltage	Type of output	Rated current	Relay
A, At	0.1 s…100 h	⎓ 24 V/∿ 24…240 V	1 CO contact	8 A	RE17RAMU
					RE17RAMUS
			2 CO contacts		RE22R2AMU
A, Aw	0.05 s…300 h	≂ 24…240 V	1 CO contact	8 A	RE22R1AMR
			2 CO contacts		RE22R2AMR
A, At, Aw	0.05 s…300 h	≂ 24…240 V	1 CO contact	8 A	RE22R1MAMR
A, At, B, C, D, Di, H, Ht	0.1 s…10 h	⎓ 24 V/ ∿ 24…240 V	1 CO contact	8 A	RE17RMEMU
					RE17RMEMUS
A, B, C, Di	0.02 s…300 h	≂ 24…240 V	2 CO contacts	5 A	RE48AML12MW
A, Ac, Ad, Ah, Ak, At, B, Bw, C, D, Di, Dt, Dit, H, Ht, L, Li, Lt, Lit, N, O, P, Pt, Qt, Qtt, Tl, Tt, W	0.05 s…999 h	≂ 24…240 V	2 CO contacts	8 A	RENF22R2MMW
A, At, Aw, C, Ct, D, Dt, Dw, Di, Dit, Diw, H, Ht, Hw, Qg, Qgt, Qt, Qtt, W, Wt	0.05 s…300 h	≂ 24…240 V	2 CO contacts	8 A	RE22R2MYMR
A, At, Aw, C, Ct, D, Dt, Dw, Di, Dit, Diw, H, Ht, Hw, W, Wt, Ac, Act	0.05 s…300 h	≂ 24…240 V	1 CO contact	8 A	RE22R1MYMR
A1, A2, H1, H2	0.02 s…300 h	≂ 24…240 V	2 CO contacts	5 A	RE48AMH13MW
Ac	0.05 s…300 h	≂ 24…240 V	2 CO contacts	8 A	RE22R2ACMR
Ac, Act	0.05 s…300 h	≂ 24…240 V	1 CO contact	8 A	RE22R1ACMR
Ad, Ah, N, O, P, Pt, Tl, Tt, W	0.1 s…100 h	⎓ 24 V/∿ 24…240 V	1 CO contact	8 A	RE17RMXMU
					RE17RMXMUS
			2 CO contacts	8 A	RE22R2MXMU
Ak, Akt	0.05 s...300 h	≂ 24…240 V	1 CO contact	8 A	RE22R1AKMR
B	0.1 s…100 h	⎓ 24 V/∿ 24…240 V	1 CO contact	8 A	RE17RBMU
C	0.1 s…100 h	∿ 24…240 V	1 solid state output	0.7 A	RE17LCBM
					RE17LCBMS
		⎓ 24 V/∿ 24…240 V	1 CO contact	8 A	RE17RCMU
					RE17RCMUS
	0.05 s...300 h	≂ 24…240 V	2 CO contacts	8 A	RE22R2CMR
C, Ct	0.05 s...300 h	≂ 24…240 V	1 CO contact	8 A	RE22R1CMR
D, Dw	0.05 s...300 h	≂ 24…240 V	1 CO contact	8 A	RE22R1DMR
			2 CO contacts		RE22R2DMR
H	0.1 s…100 h	∿ 24…240 V	1 solid state output	0. 7 A	RE17LHBM
H, Hw	0.05 s...300 h	≂ 24…240 V	1 CO contact	8 A	RE22R1HMR
			2 CO contacts	8 A	RE22R2HMR
H, Ht	0.1 s…100 h	⎓ 24 V/∿ 24…240 V	1 CO contact	8 A	RE17RHMU
					RE17RHMUS
K	0.05 s…10 min	≂ 24…240 V	1 CO contact	5 A	RE22R1KMR
			2 CO contacts		RE22R2KMR
K, He	0.05 s...300 s	≂ 24…240 V	1 CO contact	5 A	RE22R1MKMR
L, Li	0.1 s…100 h	⎓ 24 V/∿ 24…240 V	1 CO contact	8 A	RE17RLMU
					RE17RLMUS
		∿ 24…240 V	1 solid state output	0.7 A	RE17LLBM
					RE17LLBMS
		≂ 12 V	1 CO contact	8 A	RE17RLJU
	0.02 s…300 h	≂ 24…240 V	2 CO contacts	5 A	RE48ACV12MW
L, Lt, Li, Lit	0.05 s…300 h	≂ 24…240 V	1 CO contact	8 A	RE22R1MLMR
Q	0.1 s…100 h	⎓ 24 V/∿ 24…240 V	1 CO contact	8 A	RE22R1QMU
		∿ 230…240 V, ∿ 380 …440 V			RE22R1QMQ
Qc	0.05 s…300 s	≂ 24 V, ∿ 24…240 V	1 CO contact	8 A	RE22R1QCMU
Qe	0.3 s…30 s	∿ 380…415 V	2 CO contacts	8 A	RE22R2QEMT
		≂ 24…240 V			RE22R2QEMR
Qg	0.05 s…300 h	≂ 24…240 V	2 CO contacts	8 A	RE22R2QGMR
Qt	0.05 s...300 h	≂ 24…240 V	2 CO contacts	8 A	RE22R2QTMR
W, Wt	0.05 s…300 h	≂ 24…240 V	2 CO contacts	8 A	RE22R2MWMR

***Note**: References ending with "S" are spring terminals; references without "S" are screw terminals.*

Example: RE17LAMWS is timing relay with spring terminal and RE17LAMW is timing relay with screw terminal.

Functions

U: Supply
R: Relay or solid state output
R1/R2: 2 timed outputs
R2 inst.: Second output is instantaneous if the correct position is selected
T: Timing period

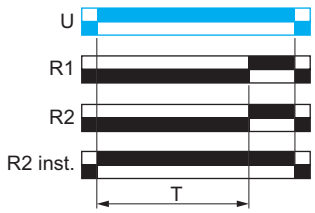
X1/X2/Y1: Control contacts
Ta: Adjustable on-delay
Tr: Adjustable off-delay

Function diagram:
- Power-on
- Power-off
- Output closed/Control input on
- Output open/Control input off

Function A: Power on-delay relay

1 output

2 outputs



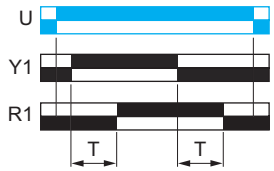
The timing period T begins on power-on.

At the end of this timing period, the output(s) R close(s).

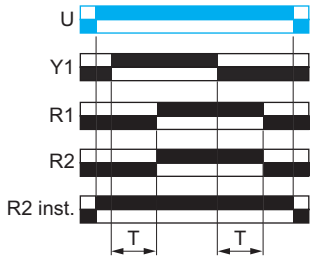
The second output (R2) can be either timed (when set to “TIMED”) or instantaneous (when set to “INST”).

Function Ac: On-delay and off-delay relay with control signal

1 output



2 outputs



After power-on, and the closure of Y1 the timing period T starts.

At the end of this timing period, the output(s) R close(s).

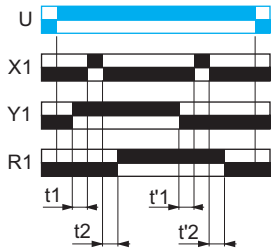
When Y1 opens, the timing period T starts.

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 Act: On-delay and off-delay relay with control signal and pause/summation control signal

1 output



T = t1 + t2 + …
T = t'1 + t'2 + …

After power-on and the closure of Y1 the timing period T starts and it can be interrupted/paused each time X1 closes.

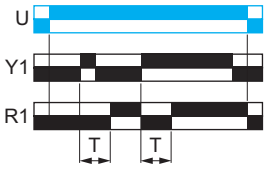
When the cumulative total time elapsed reaches the preset value T, the output(s) R close(s).

When Y1 opens, the timing T starts and it can be interrupted/paused each time X1 closes.

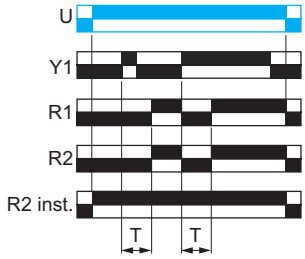
When the cumulative total time elapsed reaches the preset value T, the output(s) R open(s).

Function Ad: Pulse delayed relay with control signal

1 output



2 outputs



After power-on, pulsing or maintaining Y1 starts the timing T.

At the end of this timing period T, the output(s) R close(s).

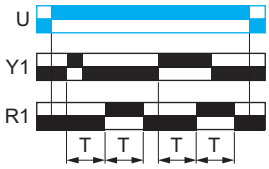
The output(s) R will revert to its/their initial position the next time Y1 is pulsed or maintained.

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

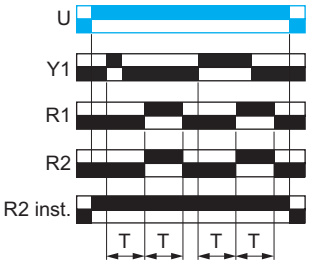
Functions (continued)

Function Ah: Pulse delayed relay (single cycle) with control signal

1 output



2 outputs



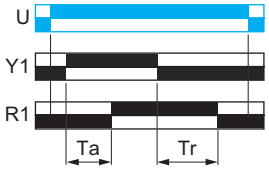
After power-on, pulsing or maintaining control contact Y1 starts the timing T. A single cycle then starts with 2 timing periods T of equal duration (start with output(s) R in initial position).

The output(s) R closes (s) state at the end of the first timing period T and reverts to its/their initial position at the end of the second timing period T. Control contact Y1 should be reset in order to re-start the single flashing cycle.

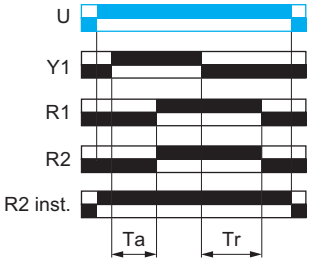
The second output (R2) can be either timed (when set to “TIMED”) or instantaneous (when set to “INST”).

Function Ak: Asymmetrical on-delay and off-delay relay with control signal

1 output



2 outputs



After power-on and the closure of control contact Y1, timing starts for a period Ta.

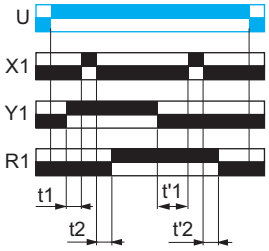
At the end of this timing period Ta, the output(s) R close(s).

A second timing period Tr starts when control contact Y1 re-opens. At the end of this timing period Tr, the output R reverts to its initial state.

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

Function Akt: Asymmetrical on-delay and off-delay relay with control signal and pause/summation control signal

1 output



Ta = t1 + t2 + …
Tr = t’1 + t’2 + …

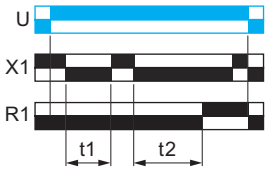
After power-on and the closure of Y1, timing starts for a period Ta and can be interrupted/paused each time X1 closes. When the cumulative total time elapsed reaches the preset value Ta, the output R closes.

A second timing period Tr starts when Y1 re-opens and can be interrupted/paused each time X1 closes.

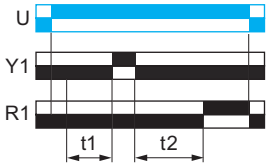
When the cumulative total time elapsed reaches the preset value Tr, the output R open(s).

Function At: Power on-delay relay with pause/summation control signal

1 output

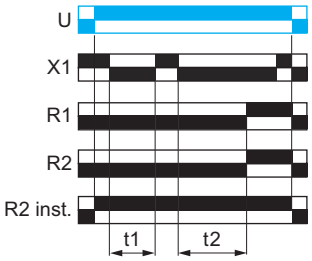


T = t1 + t2 + …

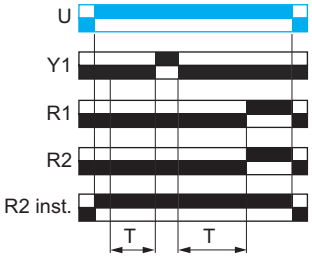


T = t1 + t2 + …

2 outputs



T = t1 + t2 + …



T = t1 + t2 + …

After power-on, the timing period T starts. Timing can be interrupted/paused each time X1 closes.

Note: *For RENF22R2MMW, RE17●, RE22R2AMU, RE22R2MMW, RE22R2MMU, and RE22R2MJU, timing can be interrupted/paused each time Y1 closes.*

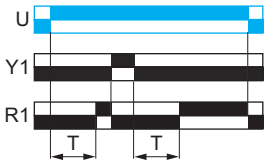
When the cumulative total time elapsed reaches the preset value T, the output(s) R close(s).

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

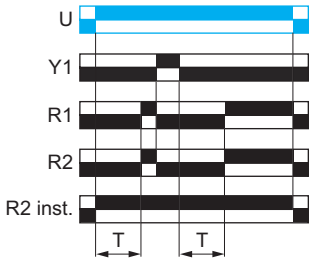
Functions (continued)

Function Aw: Power on-delay relay with retrigger/restart control signal

1 output



2 outputs



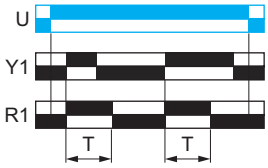
The timing period T starts on power-on. At the end of the timing period T, the output(s) R close(s).

Closing of the Y1 makes the output(s) R open. Opening of Y1 restarts timing period T. At the end of the timing period T, the output(s) R close(s).

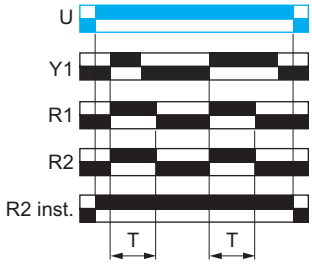
The second output (R2) can be either timed (when set to “TIMED”) or instantaneous (when set to “INST”).

Function B: Single Interval relay with control signal

1 output



2 outputs



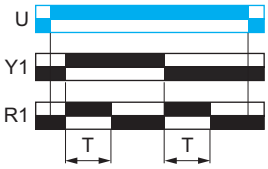
After power-on, pulsing or maintaining Y1 starts the timing T.

The output(s) R close(s) for the duration of the timing period T and then open(s).

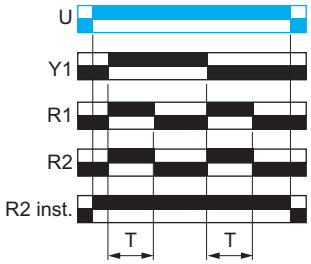
The second output (R2) can be either timed (when set to “TIMED”) or instantaneous (when set to “INST”).

Function Bw: Double interval relay with control signal

1 output



2 outputs

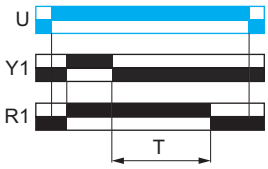


After power-on, transition of Y1 (either from open to closed or vice-versa) will cause the output(s) R to close(s) for the duration of the timing period T and then revert(s) to its/their initial state.

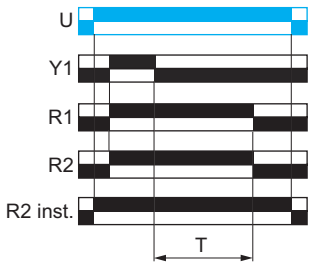
The second output (R2) can be either timed (when set to “TIMED”) or instantaneous (when set to “INST”).

Function C: Off-delay relay with control signal

1 output



2 outputs



After power-on and closure of the Y1, the output(s) R close(s).

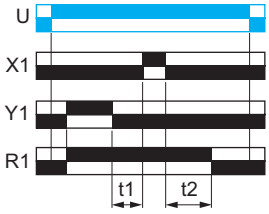
When Y1 re-opens, timing T starts.

At the end of the timing period, output(s) R open(s).

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

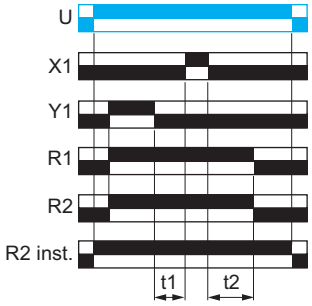
Function Ct : Off-delay relay with control signal and pause/summation control signal

1 output



T = t1 + t2 + …

2 outputs



T = t1 + t2 + …

After power-on and the closure of Y1, the output(s) R close(s).

When Y1 re-opens, timing starts and can be interrupted/paused each time X1 closes.

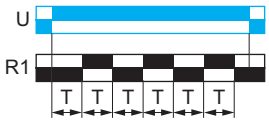
When the cumulative total time elapsed reaches the preset value T, the output(s) R open(s).

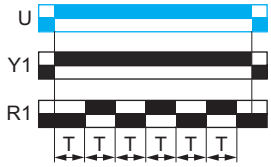
The second output (R2) can be either timed (when set to “TIMED”) or instantaneous (when set to “INST”).

Functions (continued)

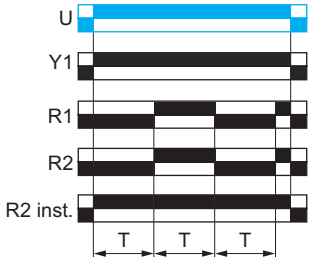
Function D: Symmetrical flashing relay (starting pulse-off)

1 output





2 outputs



After power-on, repetitive cycle starts with 2 timing periods T of equal duration, with output(s) R changing state at the end of each timing period T.

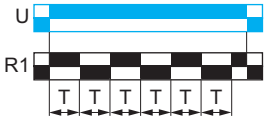
This cycle is repeated indefinitely until the power supply is removed.

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

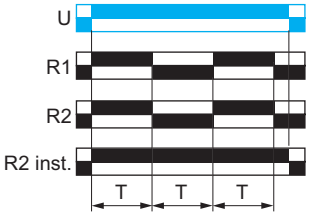
***Note**: Function D with Y1 is only for the RE17 range and RE22R2MJU, RE22R2MMU, and RE22R2MMW references.*

Function Di: Symmetrical flashing relay (starting pulse-on)

1 output



2 outputs



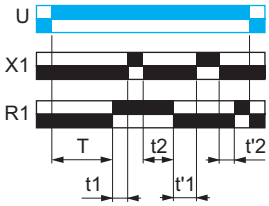
After power-on, repetitive cycle starts with 2 timing periods T of equal duration, with output(s) R changing state at the end of each timing period T.

This cycle is repeated indefinitely until the power supply is removed.

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

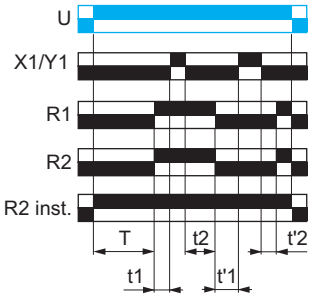
Function Dt : Symmetrical flashing relay (starting pulse-off) with pause/summation control signal

1 output



T = t1 + t2 + …
T = t’1 + t’2 + …

2 outputs



T = t1 + t2 + …
T = t’1 + t’2 + …

After power-on, output(s) R start(s) at its/their initial state for timing period T and the timing can be interrupted/paused each time X1/Y1 closes.

When the cumulative total time elapsed reaches the preset value T, the output(s) R close(s).

The output(s) R will remain in the closed state for the same timing period T and the timing can be interrupted/paused each time X1/Y1 closes.

When the cumulative total time elapsed reaches the preset value T, the output(s) R revert(s) to its/their initial state.

This cycle is repeated indefinitely until the power supply is removed.

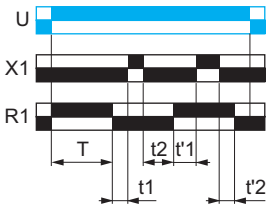
The second output (R2) can be either timed (when set to “TIMED”) or instantaneous (when set to “INST”).

***Note**: For RENF22R2MMW, timing can be interrupted/paused each time Y1 closes.*

Functions (continued)

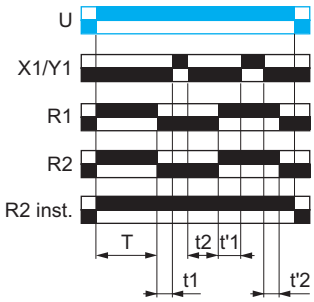
Function Dit : Symmetrical flashing relay (starting pulse-on) with pause/summation control signal

1 output



T= t1 + t2 + …
T = t'1 + t'2 +…

2 outputs



T= t1 + t2 + …
T = t'1 + t'2 +…

After power-on, output(s) R start(s) when output(s) R close(s) for timing period T and the timing can be interrupted/paused each time X1/Y1 closes.

When the cumulative total time elapsed reaches the preset value T, then the output(s) revert(s) to its/their initial state.

The output(s) R will remain in this initial state for the same timing period T and the timing can be interrupted/paused each time X1/Y1 closes.

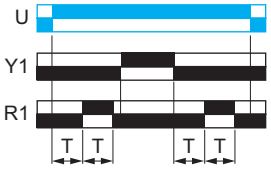
When the cumulative total time elapsed reaches the preset value T, the output(s) R close(s). This cycle is repeated indefinitely until the power supply is removed.

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

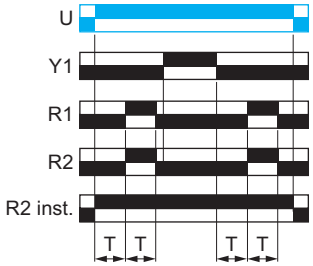
***Note**: For RENF22R2MMW, timing can be interrupted/paused each time Y1 closes.*

Function Dw: Symmetrical flashing relay (starting pulse-off) with retrigger/restart control signal

1 output



2 outputs



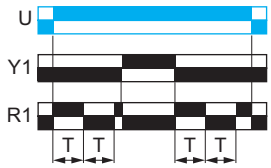
After power-on, output(s) R start(s) with open state for timing period T then close(s) for the same timing period T. This cycle is repeated indefinitely until the power supply is removed.

At any state of the output(s) R, when Y1 closes and then re-opens, the output(s) R open(s) and restart(s) the same operation as described at the beginning.

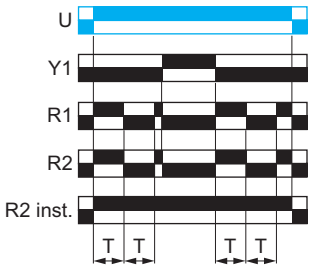
The second output (R2) can be either timed (when set to “TIMED”) or instantaneous (when set to “INST”).

Function Diw: Symmetrical flashing relay (starting pulse-on) with retrigger/restart control signal

1 output



2 outputs



After power-on, output(s) R closes(s) for timing period T and open(s) for the same timing period T. This cycle is repeated indefinitely until the power supply is removed.

At any state of the output(s) R when Y1 closes and then re-opens, the output(s) R close(s) and restart(s) the same operation as described at the beginning.

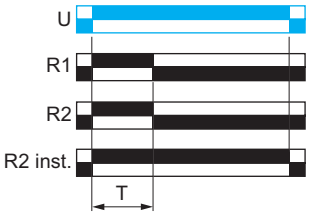
The second output (R2) can be either timed (when set to “TIMED”) or instantaneous (when set to “INST”).

Functions (continued)

Function H: Interval relay

1 output

2 outputs



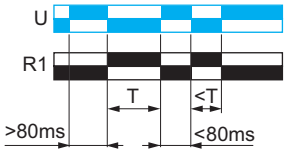
After power-on, timing period T starts and the output(s) R close(s).

At the end of the timing period T, output(s) R revert(s) to its/their initial state.

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

Function He: Pulse-on de-energization

1 output

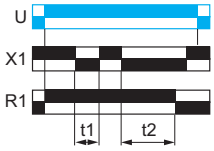


After power-on > 80 ms followed by power-off, the output R closes for the duration of a timing period T and then open(s).

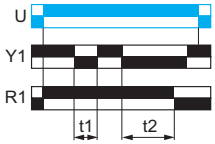
After power-on < 80 ms followed by power-off, the output R closes and opens before the end of the timing period T as it will not be able to sustain this state for the timing period T.

Function Ht: Interval relay with pause/summation control signal

1 output

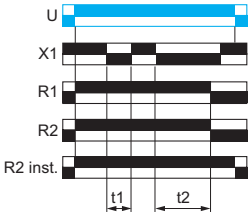


T = t1 + t2 + …

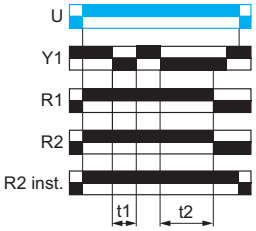


T = t1 + t2 + …

2 outputs



T = t1 + t2 + …



T = t1 + t2 + …

After power-on, output(s) R close(s) and timing period T starts, the timing can be interrupted/paused each time X1/Y1 closes.

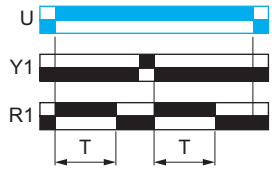
When the cumulative total time elapsed reaches the preset value T, the output(s) R revert(s) to its/their initial state.

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

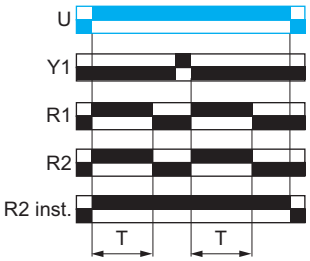
***Note**: For RE17●, RE22R2MMW, RENF22R2MMW, RE22R2MMU, and RE22R2MJU, timing can be interrupted/ paused each time Y1 closes.*

Function Hw : Interval relay with retrigger/restart control signal

1 output



2 outputs



After power-on, output(s) R close(s) and timing period T starts. At the end of the timing period T, the output(s) R open(s).

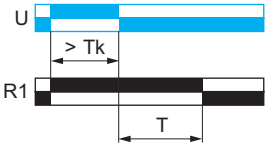
At any state of the output(s) R when Y1 closes and then re-opens, the output(s) R close(s) and restart(s) the same operation as described at the beginning.

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

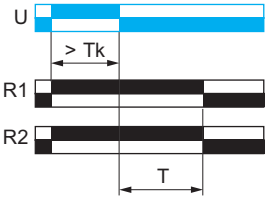
Functions (continued)

Function K: Delay on de-energization (without auxiliary supply)

1 output



2 outputs



After power-on, the output(s) R close(s).

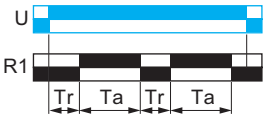
After power-off, timing period T starts and, at the end of this period, the output(s) R open(s).

The power-on > Tk is necessary to sustain the timing period T.

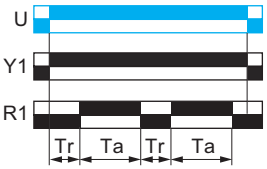
There are 3 references with different Tk as follows:
(a) RE22R1KMR ➡ Tk = 1 s
(b) RE22R2KMR ➡ Tk = 1 s
(c) RE22R1MKMR ➡ Tk = 80 ms

Function L: Asymmetrical flashing relay (starting pulse-off)

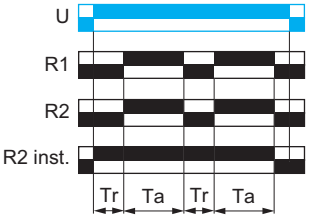
1 output



1 output



2 outputs



After power-on, repetitive cycle consisting of 2, independently adjustable timing periods Ta and Tr starts.

Each timing period corresponds to a different state of the output R.

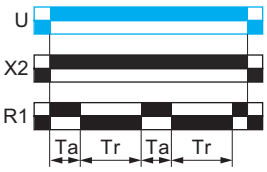
This cycle is repeated indefinitely until the power supply is removed.

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

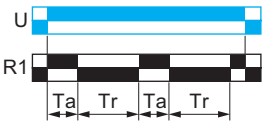
***Note**: Function L with Y1 is only for the RE17 range.*

Function Li: Asymmetrical flashing relay (starting pulse-on)

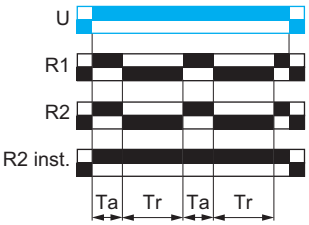
1 output



1 output



2 outputs



After power-on, repetitive cycle consisting of 2, independently adjustable timing periods Ta and Tr starts.

Each timing period corresponds to a different state of the output R.

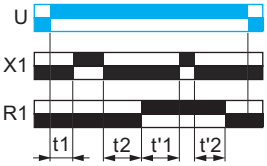
This cycle is repeated indefinitely until the power supply is removed.

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

Functions (continued)

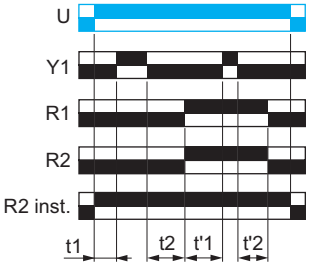
Function Lt: Asymmetrical flashing relay (starting pulse-off) with pause/summation control signal

1 output



Tr = t1 + t2 + …
Ta = t'1 + t'2 + …

2 outputs



Tr = t1 + t2 + …
Ta = t'1 + t'2 + …

After power-on, output(s) R start(s) at its/their initial state for timing duration Tr and the timing can be interrupted/paused each time X1/Y1 closes.

When the cumulative total time elapsed reaches the preset value Tr, the output(s) R close(s).

The output(s) R will remain at its close state for timing duration Ta, and the timing can be interrupted/paused each time X1/Y1 closes.

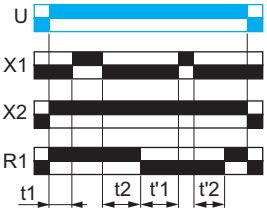
When the cumulative total time elapsed reaches the preset value Ta, then output(s) R reverts to its/their initial state.

This cycle is repeated indefinitely until the power supply is removed.

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

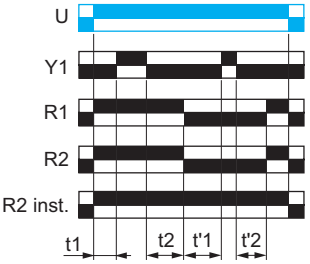
Function Lit: Asymmetrical flashing relay (starting pulse-on) with pause/summation control signal

1 output



Ta = t1 + t2 + …
Tr = t'1 + t'2 + …

2 outputs



Ta = t1 + t2 + …
Tr = t'1 + t'2 + …

After power-on, output(s) R close(s) for timing duration Ta and the timing can be interrupted/paused each time X1/Y1 closes.

When the cumulative total time elapsed reaches the preset value Ta, the output(s) R open(s).

The output(s) R will remain open for timing duration Tr, the timing can be interrupted/paused each time X1/Y1 closes.

When the cumulative total time elapsed reaches the preset value Tr, then output(s) R close(s).

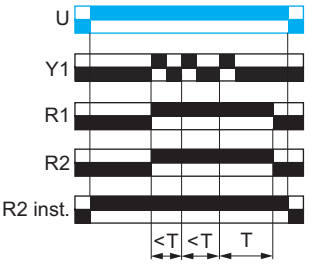
This cycle is repeated indefinitely until the power supply is removed.

***Note**: For RENF22R2MMW, timing can be interrupted/paused each time Y1 closes.*

Function N: Safe-guard relay

1 output

2 outputs



After power-on and at the beginning of the control pulse Y1, the output(s) R close(s).

If the interval between two Y1 control pulses is greater than the set timing period T, timing elapses normally and the output(s) R open(s) at the end of the timing period T.

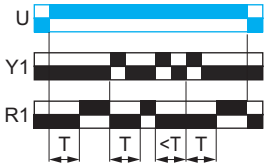
If the interval is less than the set timing period, the output(s) R remain(s) closed until this condition is met.

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

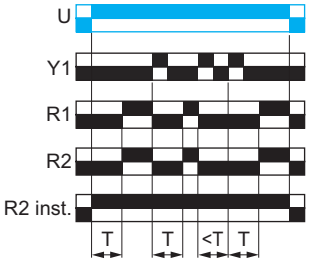
Functions (continued)

Function O: Delayed Safe-guard relay

1 output



2 outputs



An initial timing period T begins on power-on. At the end of this timing period, the output(s) R close(s).

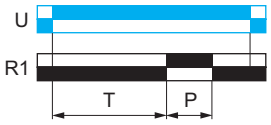
At the beginning of the control pulse Y1, the output(s) R opens(s) and remain(s) in that state if the interval between two control pulses is less than the value of the set timing period T.

Otherwise, the output(s) R close(s) at the end of the timing period T.

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

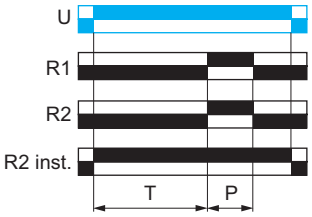
Function P: Pulse delayed relay with fixed pulse length

1 output



P = 500 ms

2 outputs



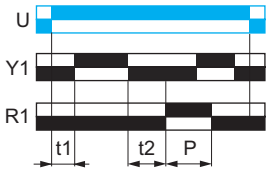
The timing period T starts on power-on.

At the end of this period, the output(s) R close(s) for a fixed time P and then revert(s) to its/their initial state.

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

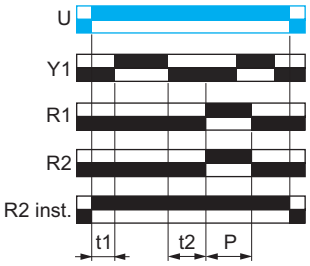
Function Pt: Pulse delayed relay with fixed pulse length and pause/summation control signal

1 output



T = t1 + t2 + …
P = 500 ms

2 outputs



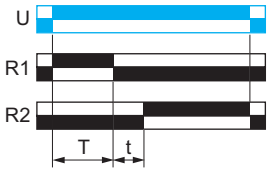
After power-on, timing period T starts (it can be interrupted by operating control contact Y1).

When the cumulative total time elapsed reaches the preset value T, the output(s) R close(s) for a fixed time P then revert(s) to its/their initial state.

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

Function Q: Star-delta relay (2 NO outputs with same common)

2 outputs



t = 20, 40, 60, 80, 100, 120, 140 ms selectable

After power-on, the output R1 closes such that it closes the star contactor and the main contactor and the timing T starts (star connection timing period starts).

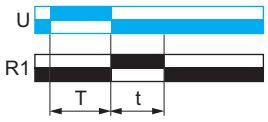
At the end of the timing period T, the output R1 opens such that it opens the star contactor and starts transition time t.

At the end of the transition time, the output R2 closes such that it closes the delta contactor.

Functions (continued)

Function Qc: Star-delta relay (1 CO output)

1 output



t = 50 ms

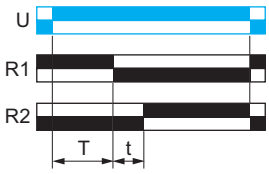
After power-on, the output R initializes at its initial state to close the star contactor and main contactor and the timing T starts (star connection timing period starts).

At the end of the timing period T, output R closes such that it opens the star contactor and starts transition time t.

At the end of the transition time, output R reverts to its initial state such that it closes the delta contactor.

Function Qe: Star-delta relay (1 NC + 1 NO outputs with split common)

2 outputs



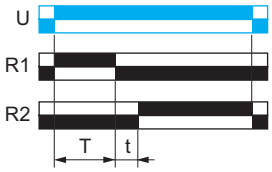
After power-on, the output R1 is at its initial state such that it closes the star contactor and the main contactor and the timing T starts (star connection timing period starts).

At the end of the timing period T, output R1 opens such that it opens the star contactor and starts transition time t.

At the end of the transition time, output R2 closes such that it closes the delta contactor.

Function Qg: Star-delta relay (2 CO outputs with same common)

2 outputs



t = 50 ms (RE22R2MYMR)
t = 20, 40, 60, 80, 100, 120, 140 ms selectable (RE22R2QGMR)

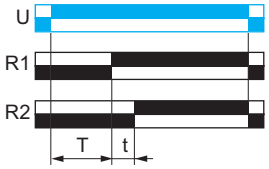
After power-on, output R1 closes the star contactor and the main contactor, and the timing T starts (star connection time period starts).

At the end of the timing period T, output R1 reverts to its initial state such that it opens the star contactor and starts transition time t.

At the end of the transition time, output R2 closes such that it closes the delta contactor.

Function Qt: Star-delta relay (2 CO outputs with split common)

2 outputs



t = 50 ms (RE22R2MYMR)
t = 20, 40, 60, 80, 100, 120, 140 ms selectable (RE22R2QTMR)
t = 50, 60, ...ms (RENF22R2MMW)

After power-on, the outputs R1 and R2 initialize at its/their initial state such that they close the star contactor and the main contactor and the timing T starts (Star connection time duration starts).

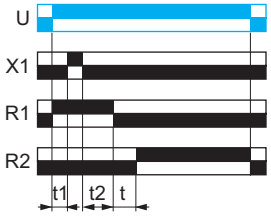
At the end of the timing period T, the output R1 closes such that it opens the star contactor and starts transition time t.

At the end of the transition time, the output R2 closes such that it closes the delta contactor.

Functions (continued)

Function Qgt : Star-delta relay (2 CO outputs with same common) with pause/summation control signal

2 outputs



T = t1 + t2 + …
t = 50 ms

After power-on, output R1 closes the star contactor and the main contactor, and the timing T starts (star connection time period starts).

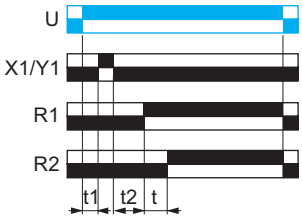
During star connection time, the timing can be interrupted/paused each time X1/Y1 closes.

When the cumulative total time elapsed reaches the preset value T, output R1 reverts to its initial state such that it opens the star contactor and starts transition time t.

At the end of the transition time, output R2 closes such that it closes the delta contactor.

Function Qtt : Star-delta relay (2 CO outputs with split common) with pause/summation control signal

2 outputs



T = t1 + t2 + …
t = 50 ms
t = 50, 60, ...ms (RENF22R2MMW)

After power-on, the outputs R1 and R2 initialize at its/their initial state such that they close the star contactor and the main contactor and the timing T starts (star connection timing period starts).

During star connection time, the timing can be interrupted/paused each time X1/Y1 closes.

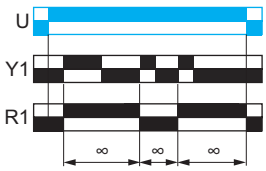
When the cumulative total time elapsed reaches the preset value T, output R1 closes such that it opens the star contactor and starts transition time t.

At the end of the transition time, output R2 closes such that it closes the delta contactor.

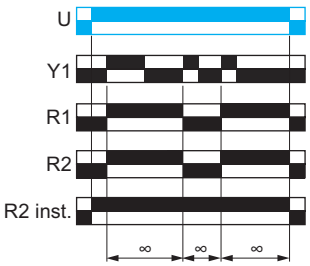
***Note**: For RENF22R2MMW, timing can be interrupted/paused each time Y1 closes.*

Function TI: Bistable relay with control signal on

1 output



2 outputs



After power-on and closure of Y1, the output(s) R close(s). The subsequent closure of Y1 causes the output(s) R to revert(s) to its/their initial state.

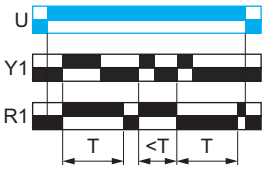
This cycle is repeated indefinitely until the power supply is removed.

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

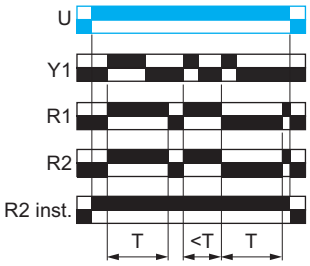
Functions (continued)

Function Tt: Retriggerable bistable relay with control signal on

1 output



2 outputs



After power-on and closure of Y1, the output(s) R close(s) and the timing T starts.

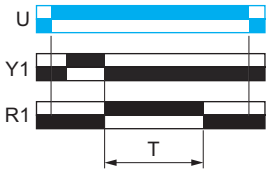
If the interval between 2 consecutive closures of Y1 is greater than the preset value T, the output(s) R will toggle from its/their present state at the end of the timing period.

If the interval between 2 consecutive closures of Y1 is less than the preset value T, the output(s) R toggle from its/their present state as soon as Y1 closes without completing duration T.

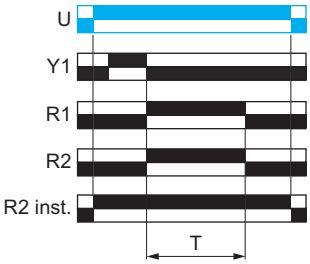
The second output (R2) can be either timed (when set to “TIMED”) or instantaneous (when set to “INST”).

Function W: Interval relay with control signal off

1 output



2 outputs



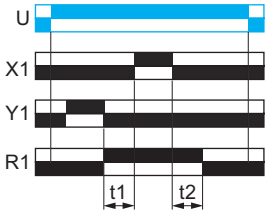
After power-on and closure of contact Y1, followed by opening of the control contact Y1, the output(s) R close(s) for a timing period T.

At the end of this timing period the output(s) revert to its/their initial state.

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

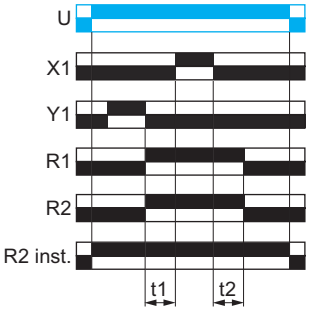
Function Wt: Interval relay with control signal off and pause/summation control signal

1 output



T = t1 + t2 + …

2 outputs



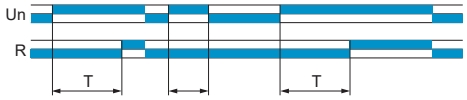
After power-on and at the end of control pulse Y1, the output(s) R close(s) for a timing period T. Timing can be interrupted/paused each time X1 closes.

When the cumulative total time elapsed reaches the preset value T, the output(s) R open(s).

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

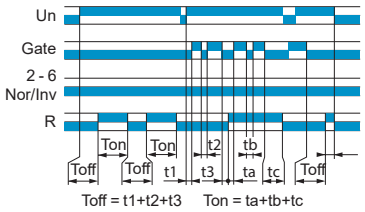
RE48ATM12MW

Function A: Power on-delay relay

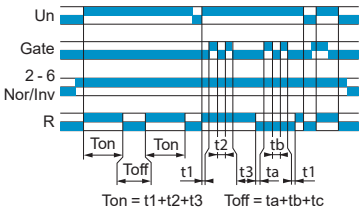


RE48ACV12MW

Function L: Asymmetrical flashing relay (starting pulse-off)

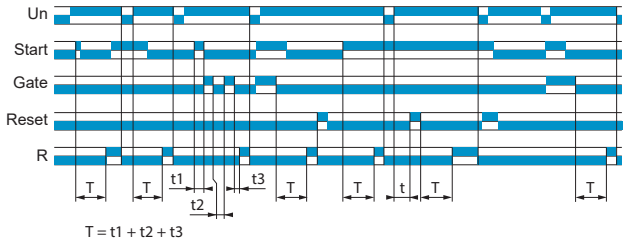


Function Li: Asymmetrical flashing relay (starting pulse-on)

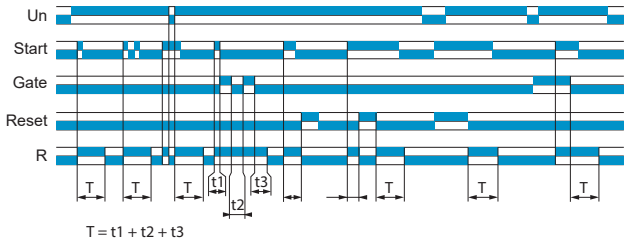


RE48AML12MW

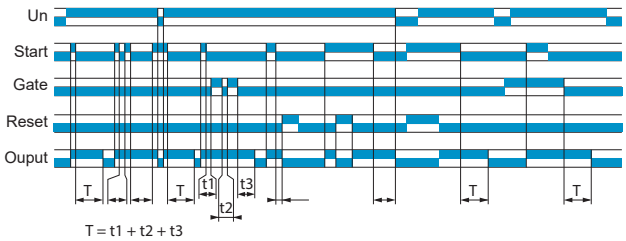
Function A: Power on-delay relay



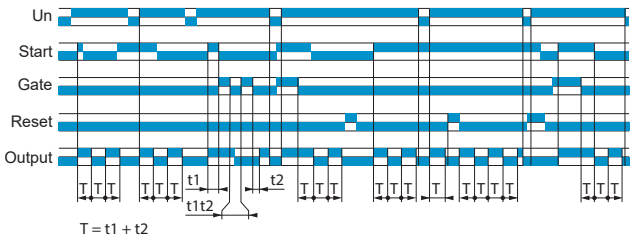
Function B: Interval relay with control signal



Function C: Off-delay relay with control signal

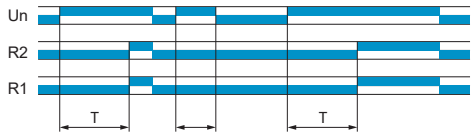


Function Di: Symmetrical flashing relay (starting pulse-on)

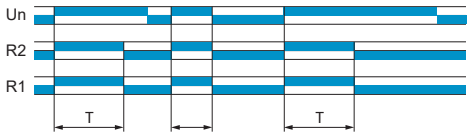


RE48AMH13MW

Functions A1, A2: Delay on energization



Functions H1, H2: Pulse-on energization



Note: *If A1 or H1 is selected, only R2 is timed, R1 is instantaneous.*

Harmony Timer Relays

Near Field Communication and conventional Timer Relays

Modular timing relays, solid state or relay output, width 17.5 mm/*0.689 in.*

Solid state output
- *Multifunction, dual function, or single function*
- *Multi-range (7 selectable ranges)*
- *Multivoltage*
- *Solid state output: 0.7 A*
- *Screw and spring terminals*

RE17LAMW

RE17LCBMS

Relay output, 1 CO contact
- *Dual function or single function*
- *Multi-range (7 selectable ranges)*
- *Multivoltage*
- *1 relay output: 8 A*
- *Screw and spring terminals*
- *State indication by 1 LED*
- *Option of supplying a load in parallel*
- *3-wire sensor control option*

RE17RAMU

RE17RMMWS

2 CO contacts
- *Multifunction*
- *Multiple timing ranges*
- *Multivoltage*
- *2 relay outputs: 8 A - 250 V*
- *Screw terminals*
- *State indication by LED*
- *Option of supplying a load in parallel*
- *3-wire sensor control option*

RENF22R2MMW

Modular timing relays with solid state output

Timing ranges	Functions	Voltages V	Reference	Weight kg/*lb*
Single function				
1 s, 10 s, 1 min, 10 min, 1 h, 10 h, 100 h	A	⎓ 24…240	RE17LAMW	0.060/*0.132*
			RE17LAMWS	0.050/*0.110*
	H	∿ 24…240	RE17LHBM	0.060/*0.132*
	C	∿ 24…240	RE17LCBM	0.060/*0.132*
			RE17LCBMS	0.050/*0.110*
Dual function				
1 s, 10 s, 1 min, 10 min, 1 h, 10 h, 100 h	L, Li	∿ 24…240	RE17LLBM	0.060/*0.132*
			RE17LLBMS	0.050/*0.110*
Multifunction				
1 s, 10 s, 1 min, 10 min, 1 h, 10 h, 100 h	A, At,B, C, H, Ht, D, Di, Ac, Bw	∿ 24…240	RE17LMBM	0.060/*0.132*

Modular timing relays with relay output

Timing ranges	Functions	Voltages V	Reference	Weight kg/*lb*
Single function				
1 s, 10 s, 1 min, 10 min, 1 h, 10 h, 100 h	B	⎓ 24/∿ 24…240	RE17RBMU	0.070/*0.154*
	C	⎓ 24/∿ 24…240	RE17RCMU	0.070/*0.154*
			RE17RCMUS	0.060/*0.132*
Dual function				
1 s, 10 s, 1 min, 10 min, 1 h, 10 h, 100 h	A, At	⎓ 24/∿ 24…240	RE17RAMU	0.070/*0.154*
			RE17RAMUS	0.060/*0.132*
	H, Ht	⎓ 24/∿ 24…240	RE17RHMU	0.070/*0.154*
			RE17RHMUS	0.060/*0.132*
	L, Li	⎓ 24/∿ 24…240	RE17RLMU	0.070/*0.154*
			RE17RLMUS	0.060/*0.132*
		⎓ 12	RE17RLJU	0.070/*0.154*
Multifunction				
1 s, 10 s, 1 min, 10 min, 1 h, 10 h, 100 h	A, At, B, C, H, Ht, D, Di, Ac, Bw	⎓ 12	RE17RMJU	0.070/*0.154*
		⎓ 24/∿ 24…240	RE17RMMU	0.070/*0.154*
			RE17RMMUS	0.060/*0.132*
		⎓ 12…240	RE17RMMW	0.070/*0.154*
			RE17RMMWS	0.060/*0.132*
	Ad, Ah, N, O, P, Pt, Ti, Tt, W	⎓ 24/∿ 24…240	RE17RMXMU	0.070/*0.154*
			RE17RMXMUS	0.060/*0.132*
1 s, 10 s, 1 min, 10 min, 1 h, 10 h	A, At, B, C, H, Ht, D, Di	⎓ 24/∿ 24…240	RE17RMEMU	0.070/*0.154*
			RE17RMEMUS	0.060/*0.132*

NFC Timing relays with relay output

Timing ranges	Functions	No. of relay outputs	Voltages V	Reference	Weight kg/*lb*
Multifunction					
0.05 s to 999 h	A, Ac, Ad, Ah, Ak, At, B, Bw, C, D, Di, Dt, Di, H,Ht, L, Li, Lt, Lit, N, O, P, Pt, Qt, Qtt, Tl, Tt,W	2	⎓ 24…240	RENF22R2MMW	0.0904/*0.1993*

***Note**: References ending with "S" are spring terminals; references without "S" are screw terminals.*
Example: RE17LAMWS is timing relay with spring terminal and RE17LAMW is timing relay with screw terminal.

Harmony Timer Relays

Near Field Communication and conventional Timer Relays

Modular timing relays with diagnostic button and dial pointer, relay output, width 22.5 mm/*0.886 in.*

Output 1 CO and 2 CO contacts

- *Multifunction, dual function, or single function*
- *Multiple timing ranges (up to 10 switchable ranges)*
- *Multivoltage*
- *1 or 2 relay outputs*
- *Screw terminals*
- *State indication by LED*
- *Option of supplying a load in parallel*
- *3-wire sensor control option*
- *Diagnostic button (1) and dial pointer LED indicator*

Zelio_CP20021

RE22R2QTMR

PF150122A

RE22R2KMR

Zelio_CP20018

RE22R2QEMR

PF150103A

RE22R2HMR

PF150114A

RE22R1MYMR

Modular timing relays with relay output

Timing ranges	Functions	No. of relay outputs	Voltages	Reference	Weight
			V		kg/*lb*
Single function					
10 selectable timing ranges 1 s, 3 s, 10 s, 30 s, 100 s, 300 s, 30 min, 300 min, 30 h, 300 h	**Ac**	2	≂ 24…240	RE22R2ACMR	0.105/ *0.231*
	Qg	2	≂ 24…240	RE22R2QGMR	0.105/ *0.231*
	Qt	2	≂ 24…240	RE22R2QTMR	0.105/ *0.231*
7 selectable timing ranges 1 s, 3 s, 10 s, 30 s, 100 s, 300 s, 10 min	**K**	1	≂ 24…240	RE22R1KMR *(1) (2)*	0.100/ *0.220*
		2	≂ 24…240	RE22R2KMR *(1) (2)*	0.100/ *0.220*
7 selectable timing ranges 0.5 s, 1 s, 3 s, 10 s, 30 s, 100 s, 300 s	**Qc**	1	≂ 24/∿ 24…240	RE22R1QCMU	0.080/ 0.176
Single range selection 30 s	**Qe**	2	≂ 24…240	RE22R2QEMR	0.090/ *0.198*
		2	∿ 380…415	RE22R2QEMT	0.090/ *0.198*
Dual function					
10 selectable timing ranges 1 s, 3 s, 10 s, 30 s, 100 s, 300 s, 30 min, 300 min, 30 h, 300 h	**A, Aw**	1	≂ 24…240	RE22R1AMR	0.100/ *0.220*
		2	≂ 24…240	RE22R2AMR	0.105/ *0.231*
	C, Ct	1	≂ 24…240	RE22R1CMR	0.100/ *0.220*
	C	2	≂ 24…240	RE22R2CMR	0.105/ *0.231*
	Ac, Act	1	≂ 24…240	RE22R1ACMR	0.100/ *0.220*
	Ak, Akt	1	≂ 24…240	RE22R1AKMR	0.100/ *0.220*
	D, Dw	1	≂ 24…240	RE22R1DMR	0.100/ *0.220*
		2	≂ 24…240	RE22R2DMR	0.105/ *0.231*
	H, Hw	1	≂ 24…240	RE22R1HMR	0.100/ *0.220*
		2	≂ 24…240	RE22R2HMR	0.105/ *0.231*
	Wt, W	2	≂24…240	RE22R2MWMR	0.105/ *0.231*
7 selectable timing ranges 0.5 s, 1 s, 3 s, 10 s, 30 s, 100 s, 300 s	**K, He**	1	≂24…240	RE22R1MKMR *(1) (2)*	0.100/ *0.220*
10 selectable timing ranges 1 s, 3 s, 10 s, 30 s, 100 s, 300 s, 30 min, 300 min, 30 h, 300 h	**A, At, Aw**	1	≂ 24…240	RE22R1MAMR	0.100/ *0.220*
	A, At, Aw, Ac, Act, C, Ct, D, Dt, Dw, Di, Dit, Diw, H, Ht, Hw, W, Wt,	1	≂ 24…240	RE22R1MYMR	0.100/ *0.220*
	A, At, Aw, C, Ct, D, Dt, Dw, Di, Dit, Diw, H, Ht, Hw, Qg, Qgt, Qt, Qtt, W, Wt	2	≂ 24…240	RE22R2MYMR	0.105/ *0.231*
	L, Li, Lt, Lit	1	≂ 24…240	RE22R1MLMR	0.100/ *0.220*

(1) The diagnostic button is not available for the K function related references (RE22R1KMR, RE22R2KMR, and RE22R1MKMR).
(2) 1 or 2 relay outputs: 5 A - 250 V.

Harmony Timer Relays

Near Field Communication and conventional Timer Relays

Modular timing relays, relay output, width 22.5 mm/*0.886 in.*

Output 1 CO and 2 CO contacts

- *Multifunction, dual function, or single function*
- *Multiple timing ranges (7 switchable ranges)*
- *Multivoltage*
- *1 or 2 relay outputs: 8 A - 250 V*
- *Screw terminals*
- *State indication by LED*
- *Option of supplying a load in parallel*
- *3-wire sensor control option*

PF153318A

RE22R1QMU

PF153320A

RE22R2AMU

PF153324A

RE22R2MXMU

Modular timing relays with relay output

Timing ranges	Functions	No. of relay outputs	Voltages	Reference	Weight
			V		kg/*lb*
Single function					
7 selectable timing ranges 1 s, 10 s, 1min, 10 min, 1h, 10 h, 100 h	**Q**	1	⎓ 24/∿ 24…240	RE22R1QMU	0.090/ *0.198*
		1	∿ 230/380	RE22R1QMQ	0.090/ *0.198*
Dual function					
7 selectable timing ranges 1 s, 10 s, 1 min, 10 min, 1 h, 10 h, 100 h	**A, At**	2	⎓ 24/∿ 24…240	RE22R2AMU	0.090/ *0.198*
Multifunction					
7 selectable timing ranges 1 s, 10 s, 1 min, 10 min, 1 h, 10 h, 100 h	**A, At, B, C, H, Ht, Di, D, Ac, Bw**	2	⎓ 24/∿ 24…240	RE22R2MMU	0.090/ *0.198*
			≂ 12	RE22R2MJU	0.090/ *0.198*
			≂ 12…240	RE22R2MMW	0.090/ *0.198*
	Ad, Ah, N, O,P, Pt, Tl, Tt, W	2	⎓ 24/∿ 24…240	RE22R2MXMU	0.090/ *0.198*

Harmony Timer Relays

Near Field Communication and conventional Timer Relays

Miniature plug-in timing relays, relay output

Output 2 CO and 4 CO contacts

- *Miniature and plug-in (21 x 27 mm/0.827 x 1.062 in.)*
- *Single function: function A = delay on energization*
- *Rated current ∿ 5 A*
- *7 timing ranges (0.1 s to 100 h)*
- *Multivoltage*
- *Excellent immunity to interference*
- *Power on and relay energized indication by 2 LEDs*

PF516218

REXL2TM●●

PF516219

REXL4TM●●

PF106014

RXZE2M114

Miniature plug-in timing relays with relay output

Single function

Timing ranges	Functions	No. of relay outputs	Voltages	Reference	Weight
			V		kg/*lb*
7 switchable ranges **0.1 s…1 s** **1 s…10 s** **0.1 min…1 min** **1 min…10 min** **0.1 h…1 h** **1 h…10 h** **10 h…100 h**	**A**	2	⎓ 12	**REXL2TMJD**	0.050/ *0.110*
			⎓ 24	**REXL2TMBD**	0.050/ *0.110*
			∿ 24 (50/60 Hz)	**REXL2TMB7**	0.050/ *0.110*
			∿ 120 (50/60 Hz)	**REXL2TMF7**	0.050/ *0.110*
			∿ 230 (50/60 Hz)	**REXL2TMP7**	0.050/ *0.110*
		4	⎓ 24 *(1)*	**REXL4TMBD**	0.050/ *0.110*
			∿ 24 (50/60 Hz) *(1)*	**REXL4TMB7**	0.050/ *0.110*
			∿ 120 (50/60 Hz)	**REXL4TMF7**	0.050/ *0.110*
			∿ 230 (50/60 Hz)	**REXL4TMP7**	0.050/ *0.110*

Sockets for relays

Contact terminal arrangement	For use with relays	Connection	Unit reference *(2)*	Weight kg/*lb*
Mixed *(3)*	REXL2TM●●, REXL4TM●●	Screw clamp	**RXZE2M114** *(5)*	0.048/ *0.106*
	REXL2TM●●, REXL4TM●●	Connector	**RXZE2M114M** *(6)*	0.056/ *0.123*
Separate *(4)*	REXL2TM●●	Connector	**RXZE2S108M**	0.070/ *0.154*
	REXL4TM●●	Connector	**RXZE2S114M**	0.058/ *0.128*
	REXL2TM●● REXL4TM●●	Spring clamp	**RXZE2S114S**	*0.070/* *0.154*

(1) For ⎓ 48 V supply, additional resistor 560 Ω 2 W/⎓ 24 V.
For ∿ 48 V, additional resistor 390 Ω 4 W/∿ 24 V.
***(2)** These products are sold in lots of 10.*
(3) The inputs are mixed with the relay's power supply terminals, with the outputs being located on the opposite side of the socket.
(4) The inputs and outputs are separated from the relay power supply.
(5) Thermal current Ith: 10 A
(6) Thermal current Ith: 12 A

Harmony Timer Relays

Near Field Communication and conventional Timer Relays

Electronic timing relays, relay output, 48 x 48 mm

Output 2 CO contacts

- *Time unit selector knob*
- *Multifunction, single function, or dual function*
- *Multirange*
- *Multivoltage*
- *2 relay outputs, 5 A*
- *Panel-mounted or plug-in*
- *LED indication*

PF110452

RE48ATM12MW

PF110451

RE48AMH13MW

DF523398

RUZC3M

109804

RE48ASOC11AR

109805

RE48ASOC11SOLD

109806

RE48ASETCOV

109807

RE48AIPCOV

Electronic Timing relays with relay output

8-pin relay

Timing ranges	Function	No. of relay outputs	Voltages	Reference	Weight
			V		kg/*lb*
1.2 s, 3 s, 12 s, 30 s, 120 s, 300 s, 12 min, 30 min, 120 min, 300 min, 12 h, 30 h, 120 h, 300 h	A	2	≂ 24…240	RE48ATM12MW	0.140/ *0.309*
	A1, A2, H1, H2	2 of which 1 instantaneous	≂ 24…240	RE48AMH13MW	0.140/ *0.309*

11-pin relay

1.2 s, 3 s, 12 s, 30 s, 120 s, 300 s, 12 min, 30 min, 120 min, 300 min, 12 h, 30 h, 120 h, 300 h	L, Li	2	≂ 24…240	RE48ACV12MW	0.140/ *0.309*
	A, B, C, Di	2	≂ 24…240	RE48AML12MW	0.140/ *0.309*

Sockets

Description	Number of pins	For use with relays	Sold in lots of	Unit reference	Weight kg/*lb*
IP 20 sockets with connection by connector and mixed contact terminals *(1)*	8	RE48ATM12MW, RE48AMH13MW	10	RUZC2M	0.054/ *0.119*
	11	RE48ACV12MW, RE48AML12MW	10	RUZC3M	0.054/ *0.119*
IP 20 socket with screw terminal connections on rear face	11	RE48ACV12MW, RE48AML12MW	1	RE48ASOC11AR	–

Connectors and protective cover

IP 20 solder connectors	11	RE48ACV12MW, RE48AML12MW	1	RE48ASOC11SOLD	–
Setting protection cover	–	RE48ATM12MW, RE48ACV12MW, RE48AML12MW, RE48AMH13MW	1	RE48ASETCOV	–
Protective cover IP 64	–	RE48ATM12MW, RE48ACV12MW, RE48AML12MW, RE48AMH13MW	1	RE48AIPCOV	–

(1) The inputs are mixed with the relay's power supply terminals, with the outputs being located on the opposite side of the socket.

R	
RE17LAMW	19
RE17LAMWS	19
RE17LCBM	19
RE17LCBMS	19
RE17LHBM	19
RE17LLBM	19
RE17LLBMS	19
RE17LMBM	19
RE17RAMU	19
RE17RAMUS	19
RE17RBMU	19
RE17RCMU	19
RE17RCMUS	19
RE17RHMU	19
RE17RHMUS	19
RE17RLJU	19
RE17RLMU	19
RE17RLMUS	19
RE17RMEMU	19
RE17RMEMUS	19
RE17RMJU	19
RE17RMMU	19
RE17RMMUS	19
RE17RMMW	19
RE17RMMWS	19
RE17RMXMU	19
RE17RMXMUS	19
RE22R1ACMR	20
RE22R1AKMR	20
RE22R1AMR	20
RE22R1CMR	20
RE22R1DMR	20
RE22R1HMR	20
RE22R1KMR	20
RE22R1MAMR	20
RE22R1MKMR	20
RE22R1MLMR	20
RE22R1MYMR	20
RE22R1QCMU	20
RE22R1QMQ	21
RE22R1QMU	21
RE22R2ACMR	20
RE22R2AMR	20
RE22R2AMU	21
RE22R2CMR	20
RE22R2DMR	20
RE22R2HMR	20
RE22R2KMR	20
RE22R2MJU	21
RE22R2MMU	21
RE22R2MMW	21
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DIA5ED2130103EN
May 2024 - V12.2