

# Zelio Time Timing Relays

Catalog

October 2016



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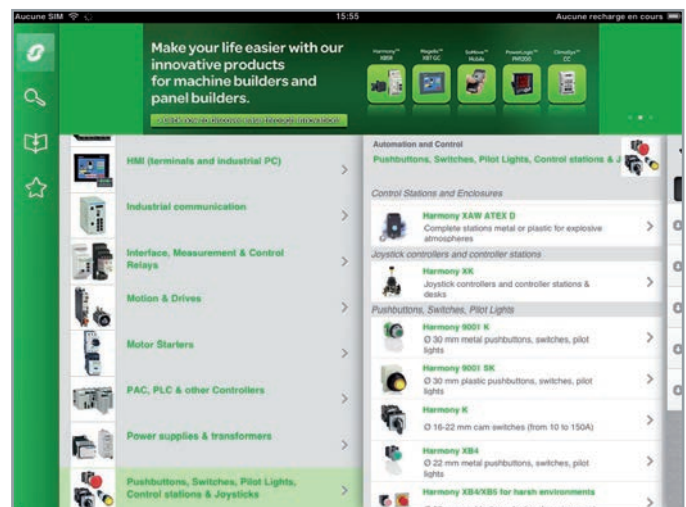
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## Zelio Time - Timing Relays

Ergonomic and configurable offer with single or multifunction types

Zelio Time 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 programmable 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, RE22

> Miniature plug-in timing relays



REXL

> Panel mounted/plug-in timing relays



RE48A

The Zelio Time relays also feature:

- Wide power supply range from 24 to 240 V AC
- Single or multi timing ranges from 0.02 s to 300 hrs
- 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

## Zelio Time

### Simple approach for higher efficiency

- > Simple, fast, and easy to set up with accurate adjustments and legible wiring diagrams on the side of the product
- > Flexible, high-performance solution with a wide choice of outputs, and screw or spring connection terminals

### RE22 modular type relays with unique features

- > Innovation: 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



<b>Applications</b>	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.	
<b>Output</b>	<b>Solid state</b> 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.	<b>Relay</b> Relay outputs provide complete isolation between the supply circuit and the output. It is possible to have several output circuits.



<b>Type</b>	Modular and DIN rail mounted	
<b>Time ranges</b>	□ 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
<b>Timer Relay type</b>	<b>RE17L</b>	<b>RE17R</b>
<b>Pages</b>	21	21

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.		
<b>Relay</b> 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
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
<b>RE22</b>	<b>REXL</b>	<b>RE48A</b>
22	24	25

## DIN rail mounted timing relays



RE17

RE22

## Miniature plug-in timing relays with sockets



REXL

RXZE2M114

## Panel-mounted/plug-in timing relays



RE48A

## 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, 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 returns to its initial position.

Application examples:

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

## 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 return to their initial position.

This type of output allows complete isolation between the power supply and the output. There are three types of output contacts:

<p><b>CO:</b> 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.</p>	
<p><b>NC:</b> A contact that is closed without being actuated is called a <b>Normally Closed (NC)</b> contact.</p>	
<p><b>NO:</b> A contact that closes when actuated is called a <b>Normally Open (NO)</b> contact.</p>	

### 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.

Definitions (continued)		
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 pulse) 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	Interval 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
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

(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.



## Selection table

### Selection criteria

- **Functions** (on-delay or off-delay, counter, flashing, etc.)
- **Supply voltage** (example:  $\sim 12\text{ V}$ ,  $24\text{ V}$ )
- **Timing range** for a timing relay (for example;  $0.05\text{ s}$ ,  $0.01\text{ h}$ )
- **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, 0.01 h	$\sim 12\text{ V}$	2 CO contacts 4 CO contacts	5 A 5 A	REXL2TMD REXL4TMD
	0.1 s, 0.01 h	$\sim 24\text{ V}$	2 CO contacts 4 CO contacts	5 A 5 A	REXL2TMBD REXL4TMBD
	0.1 s, 0.01 h	$\sim 24\text{ V}$	2 CO contacts 4 CO contacts	5 A 5 A	REXL2TMB7 REXL4TMB7
	0.1 s, 0.01 h	$\sim 120\text{ V}$	2 CO contacts 4 CO contacts	5 A 5 A	REXL2TMF7 REXL4TMF7
	0.1 s, 0.01 h	$\sim 230\text{ V}$	2 CO contacts 4 CO contacts	5 A 5 A	REXL2TMP7 REXL4TMP7
	0.1 s, 0.01 h 0.02 s, 0.01 h	$\sim 242\text{ V}$ , $40\text{ V}$	2 CO contacts	0.7 A 5 A	RE17LAMW RE48ATM12MW
A, Ac, At, B, Bw, C, D, Di, H, Ht	0.1 s, 0.01 h	$\sim 242\text{ V}$ , $40\text{ V}$	1 solid state output	0.7 A	RE17LMBM
	0.1 s, 0.01 h	$\sim 12\text{ V}$	1 CO contact	8 A	RE17RMW
	0.1 s, 0.01 h	$\sim 122\text{ V}$ , $40\text{ V}$	1 CO contact	8 A 8 A	RE17RMMW RE17RMMWS
	0.1 s, 0.01 h	$\sim 24\text{ V}$ , $\sim 242\text{ V}$ , $40\text{ V}$	1 CO contact	8 A	RE17RMMU
	0.1 s, 0.01 h	$\sim 24\text{ V}/\sim 242\text{ V}$ , $40\text{ V}$ $\sim 12\text{ V}$ $\sim 122\text{ V}$ , $40\text{ V}$	2 CO contacts	8 A	RE22R2MMU RE22R2MW RE22R2MMW
A, At	0.1 s, 0.01 h	$\sim 24\text{ V}$ , $\sim 242\text{ V}$ , $40\text{ V}$	1 CO contact	8 A	RE17RAMU
	0.1 s, 0.01 h	$\sim 24\text{ V}$ , $\sim 242\text{ V}$ , $40\text{ V}$	2 CO contacts	8 A	RE22R2AMU
A, Aw	0.05 s, 0.01 h	$\sim 242\text{ V}$ , $40\text{ V}$	1 CO contact 2 CO contacts	8 A	RE22R1AMR RE22R2AMR
A, At, Aw	0.05 s, 0.01 h	$\sim 242\text{ V}$ , $40\text{ V}$	1 CO contact	8 A	RE22R1AMMR
A, At, B, C, D, Di, H, Ht	0.1 s, 0.01 h	$\sim 24\text{ V}$ , $\sim 242\text{ V}$ , $40\text{ V}$	1 CO contact	8 A	RE17RMEMU
A, B, C, Di	0.02 s, 0.01 h	$\sim 242\text{ V}$ , $40\text{ V}$	2 CO contacts	5 A	RE48AML12MW
A, At, Aw, C, Ct, D, Dt, Dw, Di, Dit, Diw, H, Ht, Hw, Qg, Qgt, Qt, Qtt, W, Wt	0.05 s, 0.01 h	$\sim 242\text{ V}$ , $40\text{ V}$	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, 0.01 h	$\sim 242\text{ V}$ , $40\text{ V}$	1 CO contact	8 A	RE22R1MYMR

Selection table (continued)					
Functions	Timing range	Supply voltage	Type of output	Rated current	Relay
A1, A2, H1, H2	0.02 s3. 00 h	≈ 242. 40 V	2 CO o ntab s	5 A	RE48AMH13MW
Ac	0.05 s3. 00 h	≈ 242. 40 V	2 CO o ntab s	8 A	RE22R2ACMR
Ac, Act	0.05 s3. 00 h	≈ 242. 40 V	1 CO o ntab	8 A	RE22R1ACMR
Ad, Ah, N, O, P, Pt, Tl, Tt, W	0.1 s1. 00 h	≡ 24 V, ~ 242. 40 V	1 CO o ntab	8 A	RE17RMXMU
	0.1 s1. 00 h	≡ 24 V/~ 242. 40 V	2 CO o ntab s	8 A	RE22R2MXMU
Ak, Akt	0.05 s...300 h	≈ 242. 40 V	1 CO o ntab	8 A	RE22R1AKMR
B	0.1 s1. 00 h	≡ 24 V, ~ 242. 40 V	1 CO o ntab	8 A	RE17RBMU
C	0.1 s1. 00 h	~ 242. 40 V	1 solid state output	0.7 A	RE17LCBM
	0.1 s1. 00 h	≡ 24 V/~ 242. 40 V	1 CO o ntab	8 A	RE17RCMU
	0.05 s...300 h	≈ 242. 40 V	2 CO o ntab s	8 A	RE22R2CMR
C, Ct	0.05 s...300 h	≈ 242. 40 V	1 CO o ntab	8 A	RE22R1CMR
D, Dw	0.05 s...300 h	≈ 242. 40 V	1 CO o ntab 2 CO o ntab s	8 A 8 A	RE22R1DMR RE22R2DMR
H	0.1 s1. 00 h	~ 242. 40 V	1 solid state output	0.7 A	RE17LHBM
H, Hw	0.05 s...300 h	≈ 242. 40 V	1 CO o ntab 2 CO o ntab s	8 A 8 A	RE22R1HMR RE22R2HMR
H, Ht	0.1 s1. 00 h	≡ 24 V, ~ 242. 40 V	1 CO o ntab	8 A	RE17RHMU
K	0.05 s1. 0 min	≈ 242. 40 V	1 CO o ntab 2 CO o ntab s	5 A 5 A	RE22R1KMR RE22R2KMR
K, He	0.05 s...300 h	≈ 242. 40 V	1 CO o ntab t	5 A	RE22R1MKMR
L, Li	0.1 s1. 00 h	≡ 24 V, ~ 242. 40 V	1 CO o ntab	8 A	RE17RLMU
	0.1 s1. 00 h	~ 242. 40 V	1 solid state output	0.7 A	RE17LLBM
	0.1 s1. 00 h	≈ 12 V	1 CO o ntab	8 A	RE17RLW
	0.02 s3. 00 h	≈ 242. 40 V	2 CO o ntab s	5 A	RE48ACV12MW
L, Lt, Li, Lit	0.05 s3. 00 h	≈ 242. 40 V	1 CO o ntab	8 A	RE22R1MLMR
Q	0.1 s1. 00 h	≡ 24 V, ~ 242. 40 V	1 CO o ntab	8 A	RE22R1QMU
		~ 2302. 40 V, ~ 3804. 40 V	1 CO o ntab	8 A	RE22R1QMQ
Qc	0.05 s3. 00 s	≈ 24 V, ~ 242. 40 V	1 CO o ntab	8 A	RE22R1QCMU
Qe	0.3 s3. 0 s	~ 3804. 15 V	2 CO o ntab s	8 A	RE22R2QEMT
	0.3 s3. 0 s	≈ 242. 40 V	2 CO o ntab s	8 A	RE22R2QEMR
Qg	0.05 s to 300 h	≈ 242. 40 V	2 CO o ntab s	8 A	RE22R2QGMR
Qt	0.05 s...300 h	≈ 242. 40 V	2 CO o ntab s	8 A	RE22R2QTMR
W, Wt	0.05 s3. 00 h	≈ 242. 40 V	2 CO o ntab s	8 A	RE22R2MWMR

## Functions

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

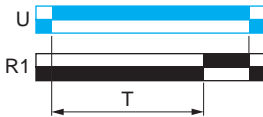
**X1/X2/Y1:** Control contacts  
**Ta:** Adjustable on-delay  
**Tr:** Adjustable off-delay

### Function diagram:

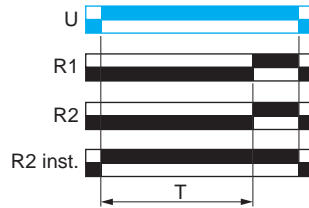
- Power-on
- Power-off
- Output closed/Control input on
- Output open/Control input off

### Function A: Power on-delay relay

#### 1 output



#### 2 outputs



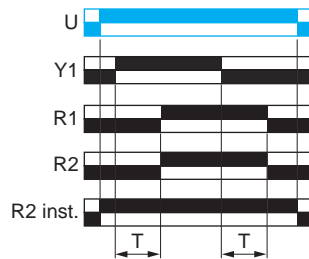
The timing period T begins on power-on.  
 At the end of this timing period, the output(s) R close(s).  
 The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").

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

#### 1 output



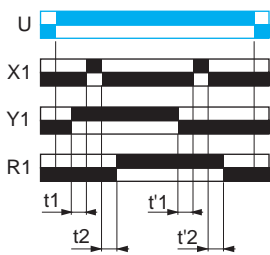
#### 2 outputs



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 open(s).  
 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



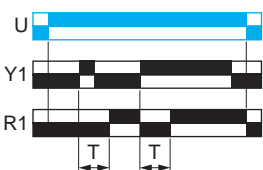
After power-on and the closure of Y1 the timing period T starts and it can be interrupted/paused each time X1 closes. When the cumulative total time elapsed reaches the preset value T, the output(s) R close(s).  
 When Y1 opens, the timing T starts and it can be interrupted/paused each time X1 closes. When the cumulative total time elapsed reaches the preset value T, the output(s) R open(s).

$$T = t_1 + t_2 + \dots$$

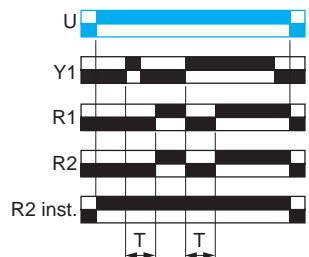
$$T = t'_1 + t'_2 + \dots$$

### Function Ad: Pulse delayed relay with control signal

#### 1 output



#### 2 outputs

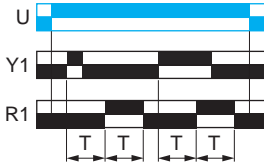


After power-on, pulsing or maintaining Y1 starts the timing T.  
 At the end of this timing period T, the output(s) R close(s).  
 R remains closed until the next pulsing or maintaining Y1 to start the next pulse.  
 The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").

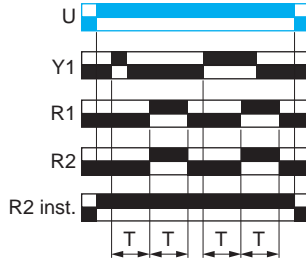
## Functions (continued)

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

1 output



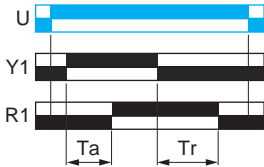
2 outputs



After power-on, pulsing or maintaining Y1 starts the timing T. A single pulse then starts with 2 timing periods T of equal duration (start with output(s) open(s)). The output(s) R closes(s) at the end of the first timing period T and open(s) at the end of the second timing period T. 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

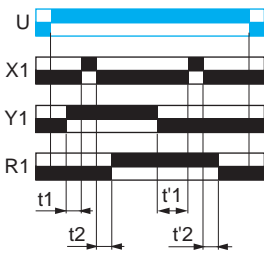
1 output



After power-on and the closure of Y1, timing starts for a period Ta. At the end of this timing period Ta, the output R closes. A second timing period Tr starts when Y1 re-opens. At the end of this timing period Tr, the output R opens(s).

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

1 output

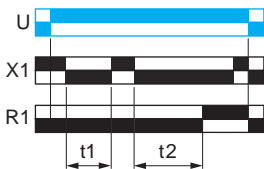


After power-on and the closure of Y1, timing starts for a period Ta and can be interrupted/paused each time X1 closes. When the cumulative total time elapsed reaches the preset value Ta, the output R closes. A second timing period Tr starts when Y1 re-opens and can be interrupted/paused each time X1 closes. When the cumulative total time elapsed reaches the preset value Tr, the output R opens(s).

$T_a = t_1 + t_2 + \dots$   
 $T_r = t'_1 + t'_2 + \dots$

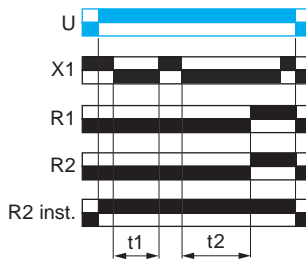
### Function At: Power on-delay relay with pause/summation control signal

1 output



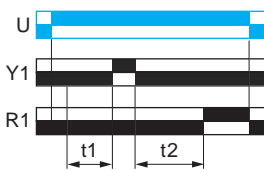
$T = t_1 + t_2 + \dots$

2 outputs

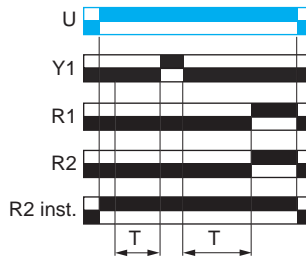


$T = t_1 + t_2 + \dots$

After power-on, the timing period T starts. Timing can be interrupted/paused each time X1 closes. **Note:** Except for RE17, RE22R2AMU, RE22R2MMW, RE22R2MMU, and RE22R2MWS, timing can be interrupted/paused each time Y1 closes. When the cumulative total time elapsed reaches the preset value T, the output(s) R closes(s). The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").



$T = t_1 + t_2 + \dots$

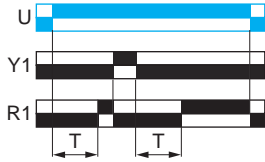


$T = t_1 + t_2 + \dots$

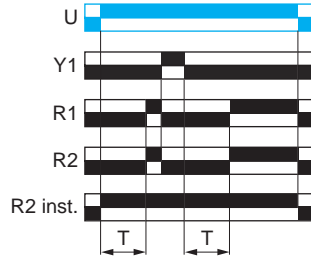
## Functions (continued)

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

1 output



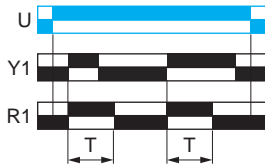
2 outputs



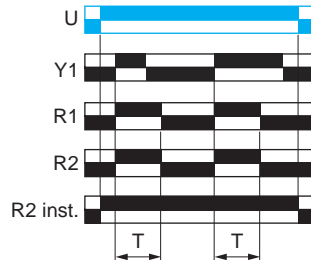
The timing period T starts on power-on. At the end of the timing period T, the output(s) R close(s). Closing of the Y1 makes the output(s) R open. Opening of Y1 restarts timing period T. At the end of the timing period T, the output(s) R close(s). The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").

### Function B: Single interval relay with control signal

1 output



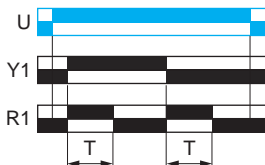
2 outputs



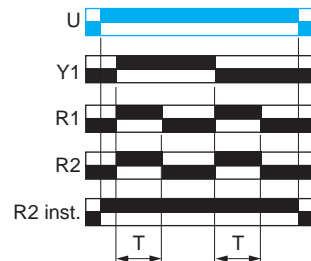
After power-on, pulsing or maintaining Y1 starts the timing T. The output(s) R close(s) for the duration of the timing period T and then open(s). The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").

### Function Bw: Double interval relay with control signal

1 output



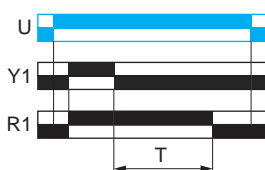
2 outputs



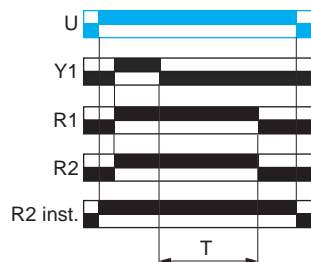
After power-on, transition of Y1 (either from open to closed or vice versa) will cause the output(s) R to close(s) for the duration of the timing period T and then open(s). The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").

### Function C: Off-delay relay with control signal

1 output



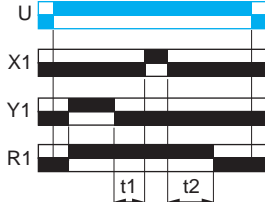
2 outputs



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").

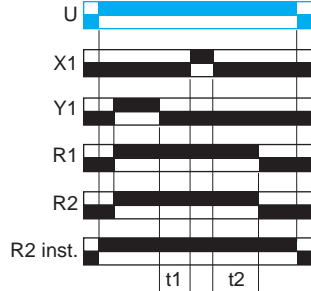
### Function Ct: Off-delay relay with control signal and pause/summation control signal

1 output



$$T = t1 + t2 + \dots$$

2 outputs



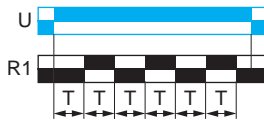
$$T = t1 + t2 + \dots$$

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").

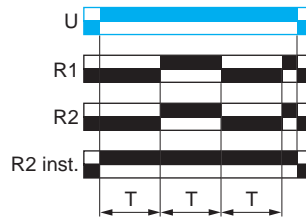
## Functions (continued)

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

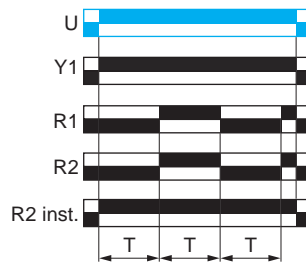
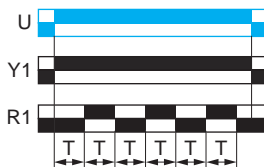
1 output



2 outputs



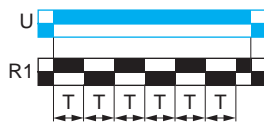
Repetitive pulse with 2 timing periods T of equal duration, with output(s) R changing state at the end of each timing period T. The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").



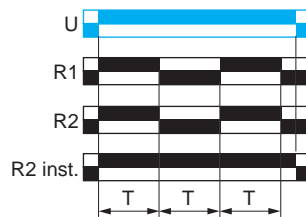
**Note:** Function D with Y1 is only for the RE17 range and RE22R2MW, RE22R2MMU, and RE22R2MMW references.

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

1 output



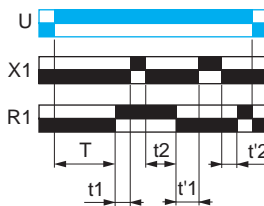
2 outputs



Repetitive pulse with 2 timing periods T of equal duration, with output(s) R changing state at the end of each timing period T. 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

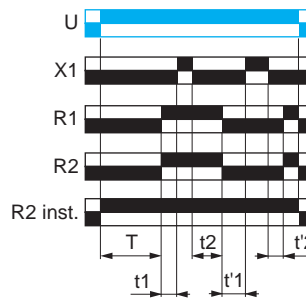
1 output



$$T = t_1 + t_2 + \dots$$

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

2 outputs



$$T = t_1 + t_2 + \dots$$

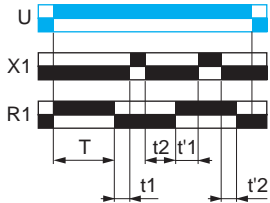
$$T = t'_1 + t'_2 + \dots$$

After power-on, output(s) R start(s) with open state for timing period T and the timing 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). 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 closes. When the cumulative total time elapsed reaches the preset value T, the output(s) R open(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").

## Functions (continued)

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

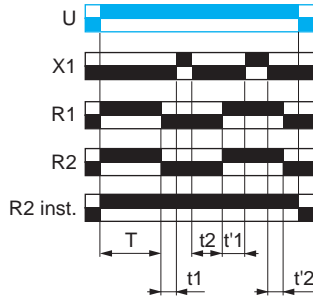
1 output



$$T = t_1 + t_2 + \dots$$

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

2 outputs



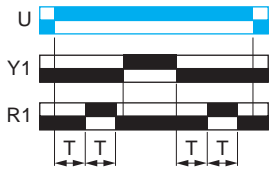
$$T = t_1 + t_2 + \dots$$

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

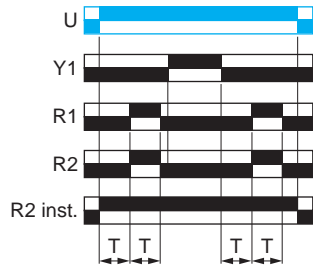
After power-on, output(s) R close(s) for timing period T while a n be interrupted/paused each time X1 closes. When the cumulative total time elapsed reaches the preset value T, then the output(s) open(s). The output(s) R will remain open for the same timing period T and the timing a n be interrupted/paused each time X1 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) a n be either timed (when set to "TIMED") or instantaneous (when set to "INST").

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

1 output



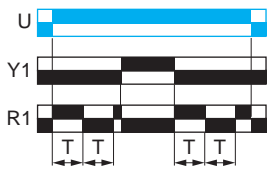
2 outputs



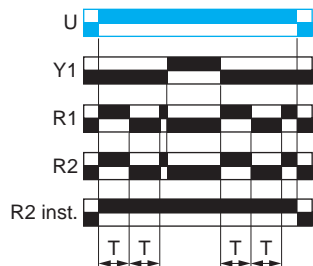
After power-on, output(s) R start(s) with open state for timing period T then close(s) for the same timing period T. This cycle is repeated indefinitely until the power supply is removed. At any state of the output(s) R, when Y1 closes and then re-opens, the output(s) R open(s) and restart(s) the same operation as described at the beginning. The second output (R2) a n 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



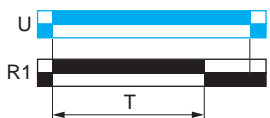
2 outputs



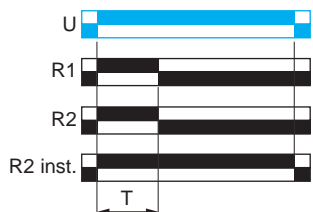
After power-on, output(s) R close(s) for timing period T and open(s) for the same timing period T. This cycle is repeated indefinitely until the power supply is removed. At any state of the output(s) R when Y1 closes and then re-opens, the output(s) R close(s) and restart(s) the same operation as described at the beginning. The second output (R2) a n be either timed (when set to "TIMED") or instantaneous (when set to "INST").

### Function H: Interval relay

1 output



2 outputs

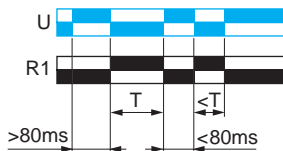


After power-on, timing period T starts and the output(s) R close(s). At the end of the timing period T, output(s) R open(s). The second output (R2) a n be either timed (when set to "TIMED") or instantaneous (when set to "INST").

## Functions (continued)

### Function He: Pulse-on de-energization

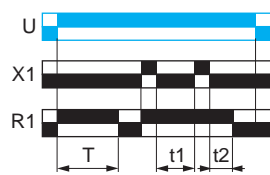
1 output



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

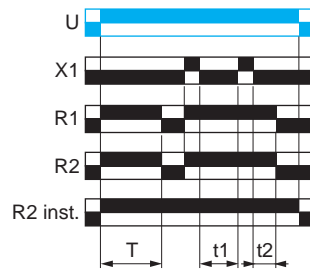
### Function Ht: Interval relay with pause/summation control signal

1 output



$$T = t_1 + t_2 + \dots$$

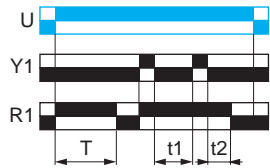
2 outputs



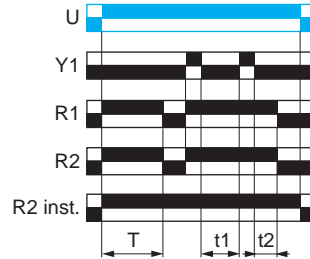
$$T = t_1 + t_2 + \dots$$

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

**Note:** For RE17, RE22R2MMW, RE22R2MMU, and RE22R2MW, timing can be interrupted/paused each time Y1 closes.



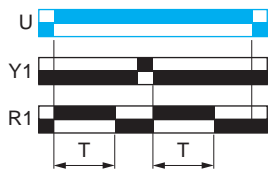
$$T = t_1 + t_2 + \dots$$



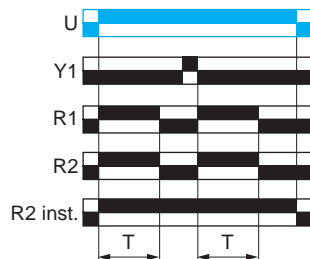
$$T = t_1 + t_2 + \dots$$

### Function Hw: Interval relay with retrigger/restart control signal

1 output



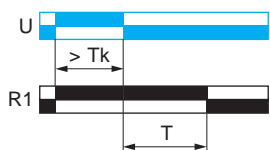
2 outputs



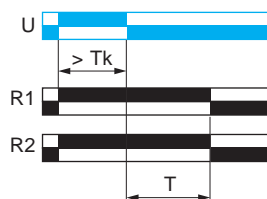
After power-on, output(s) R close(s) and timing period T starts. At the end of the timing period T, the output(s) R open(s). At any state of the output(s) R when Y1 closes and then re-opens, the output(s) R closes and restart(s) the same operation as described at the beginning.  
 The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").

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

1 output



2 outputs



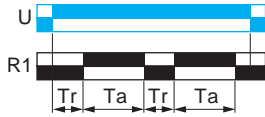
After power-on, the output(s) R close(s). After power-off, timing period T starts and, at the end of this period, the output(s) R open(s).  
 The power-on > Tk is necessary to sustain the timing period T.  
 There are 3 references with different Tk as follows:  
 (a) RE22R1KMR --> Tk = 1 s  
 (b) RE22R2KMR --> Tk = 1 s  
 (c) RE22R1MKMR --> Tk = 80 ms



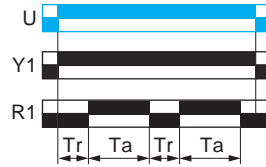
## Functions (continued)

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

1 output



1 output

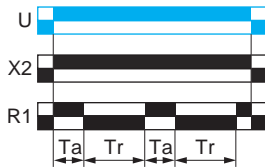


Repetition period consisting of 2, independently adjustable timing periods  $T_a$  and  $T_r$ . Each timing period corresponds to a different state of the output R.

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

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

1 output



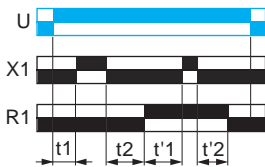
1 output



Repetition period consisting of 2, independently adjustable timing periods  $T_a$  and  $T_r$ . Each timing period corresponds to a different state of the output R.

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

1 output



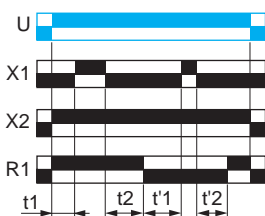
Repetition period comprises of 2, independently adjustable timing periods  $T_a$  and  $T_r$ . Each timing period corresponds to a different state of the output R. Control signal at X1 can be operated to partially stop timing periods  $T_a$  and  $T_r$ .

$$T_r = t_1 + t_2 + \dots$$

$$T_a = t'_1 + t'_2 + \dots$$

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

1 output



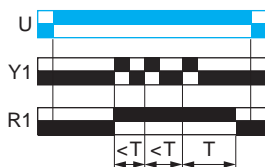
After power-on, output(s) R close(s) for timing duration  $T_a$  and the timing can be interrupted/paused each time X1 closes. When the cumulative total time elapsed reaches the preset value  $T_a$ , the output(s) R open(s). The output(s) R will remain open for timing duration  $T_r$ , the timing can be interrupted/paused each time X1 closes. When the cumulative total time elapsed reaches the preset value  $T_r$ , then output(s) R close(s). This cycle is repeated indefinitely until the power supply is removed.

$$T_a = t_1 + t_2 + \dots$$

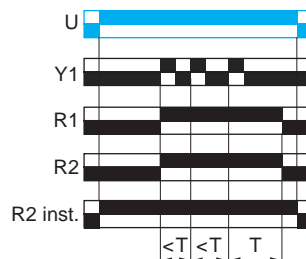
$$T_r = t'_1 + t'_2 + \dots$$

### Function N: Safe-guard relay

1 output



2 outputs

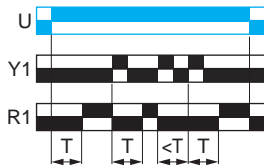


After power-on and at the beginning of the control pulse Y1, the output(s) R close(s). If the interval between two Y1 control pulses is greater than the set timing period T, timing elapses normally and the output(s) R open(s) at the end of the timing period T. If the interval is less than the set timing 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").

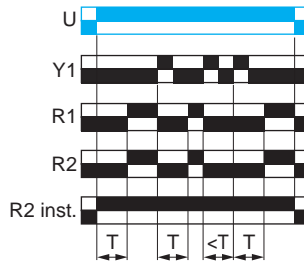
## Functions (continued)

### Function O: Delayed Safe-guard relay

1 output



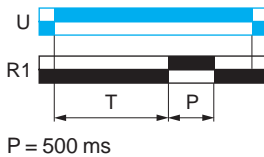
2 outputs



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 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").

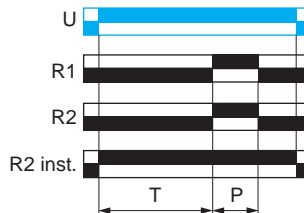
### Function P: Pulse delayed relay with fixed pulse length

1 output



$P = 500 \text{ ms}$

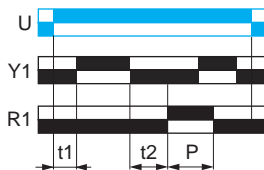
2 outputs



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

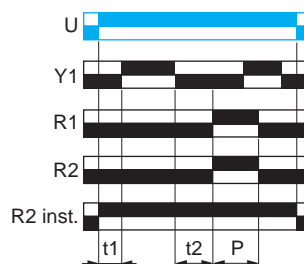
### Function Pt: Pulse delayed relay with fixed pulse length and pause/summation control signal

1 output



$T = t1 + t2 + \dots$   
 $P = 500 \text{ ms}$

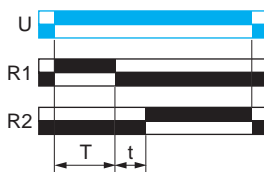
2 outputs



After power-on, timing period  $T$  starts (it can be interrupted by operating  $Y1$ ).  
When the cumulative total time elapsed reaches the preset value  $T$ , the output(s) R close(s) for a fixed time  $P$  then open(s).  
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

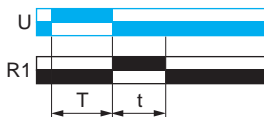


$t = 20, 40, 60, 80, 100, 120, 140 \text{ ms}$  selectable

After power-on, the output R1 closes such that it closes the star contact or and the main contact or 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 contact or and starts transition time  $t$ .  
At the end of the transition time, the output R2 closes such that it closes the delta contact or.

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

1 output

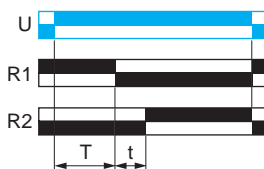


$t = 50 \text{ ms}$

After power-on, the output R initializes at its initial state to close the star contact or and main contact or 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 contact or 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 contact or.

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

2 outputs



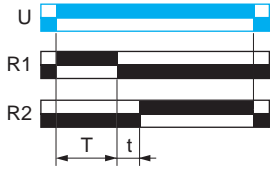
$t = 20, 40, 60, 80, 100, 120, 140 \text{ ms}$  selectable

After power-on, the output R1 is at its initial state such that it closes the star contact or and the main contact or 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 contact or and starts transition time  $t$ .  
At the end of the transition time, output R2 closes such that it closes the delta contact or.

## Functions (continued)

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

2 outputs

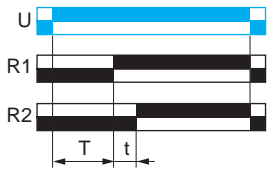


t = 50 ms (RE22R2MYMR)  
 t = 20, 40, 60, 80, 100, 120, 140 ms selectable (RE22R2QGMR)

After power-on, output R1 closes the star contact or and the main contact or, and the timing T starts (star connection time period starts).  
 At the end of the timing period T, output R1 returns to its initial state such that it opens the star contact or and starts transition time t.  
 At the end of the transition time, output R2 closes such that it closes the delta contact or.

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

2 outputs

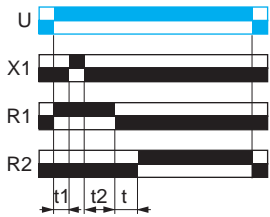


t = 50 ms (RE22R2MYMR)  
 t = 20, 40, 60, 80, 100, 120, 140 ms selectable (RE22R2QTMR)

After power-on, the outputs R1 and R2 initialize at its/their initial state such that they close the star contact or and the main contact or 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 contact or and starts transition time t.  
 At the end of the transition time, the output R2 closes such that it closes the delta contact or.

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

2 outputs

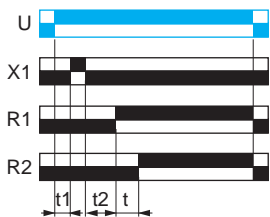


T = t1 + t2 + ...  
 t = 50 ms

After power-on, output R1 closes the star contact or and the main contact or, and the timing T starts (star connection time period starts).  
 During star connection time, the timing can be interrupted/paused each time X1 closes. When the cumulative total time elapsed reaches the preset value T, output R1 returns to its initial state such that it opens the star contact or and starts transition time t.  
 At the end of the transition time, output R2 closes such that it closes the delta contact or.

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

2 outputs

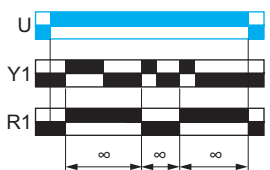


T = t1 + t2 + ...  
 t = 50 ms

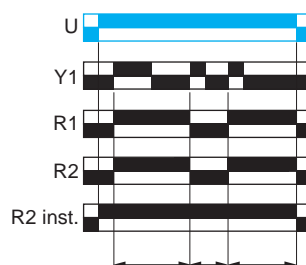
After power-on, the outputs R1 and R2 initialize at its/their initial state such that they close the star contact or and the main contact or and the timing T starts (star connection timing period starts).  
 During star connection time, the timing can be interrupted/paused each time X1 closes. When the cumulative total time elapsed reaches the preset value T, output R1 closes such that it opens the star contact or and starts transition time t.  
 At the end of the transition time, output R2 closes such that it closes the delta contact or.

### Function TI: Bistable relay with control signal on

1 output



2 outputs

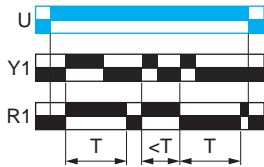


After power-on and closure of Y1, the output(s) R close(s). The subsequent closure of Y1 causes the output(s) R toggle(s) from its/their present state. This cycle is repeated indefinitely until the power supply is removed.  
 The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").

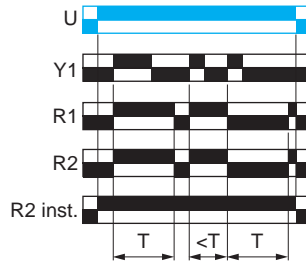
## Functions (continued)

### 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.

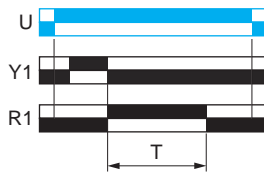
If the interval between two successive closures of Y1 is greater than the preset value T, the output(s) R will toggle from its/their present state at the end of the timing period.

If the interval between two successive 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.

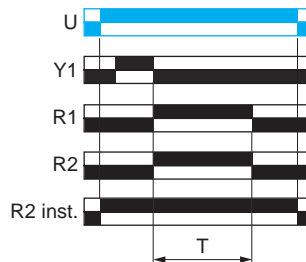
The second output (R2) can be either timed (when set to "TIMED") or instantaneous (when set to "INST").

### Function W: Interval relay with control signal off

1 output



2 outputs



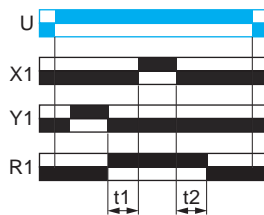
After power-on and at the end of control pulse Y1, the output(s) R close(s) for a timing period T.

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

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

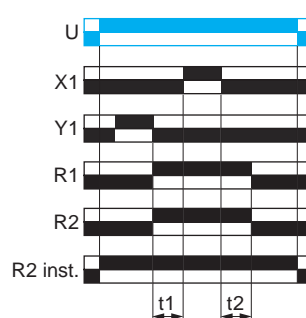
### Function Wt: Interval relay with control signal off and pause/summation control signal

1 output



$$T = t1 + t2 + \dots$$

2 outputs



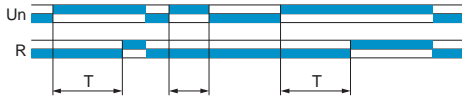
After power-on and at the end of control pulse Y1, the output(s) R close(s) for a timing period T. Timing can be interrupted/paused each time X1 closes.

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

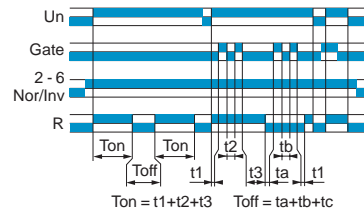
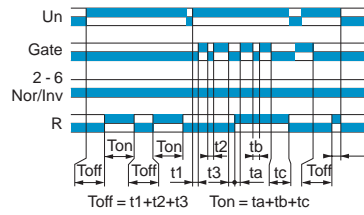
Function A: Power on-delay relay



## RE48ACV12MW

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

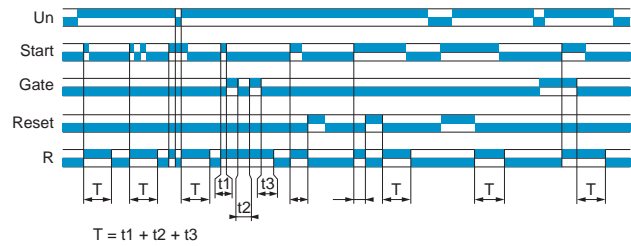
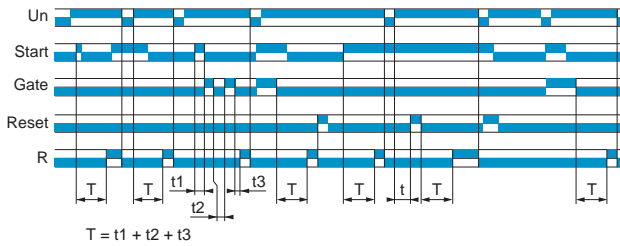
Function Li: Asymmetrical flashing relay (starting pulse-on)



## RE48AML12MW

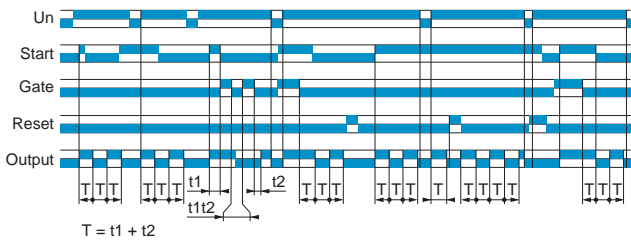
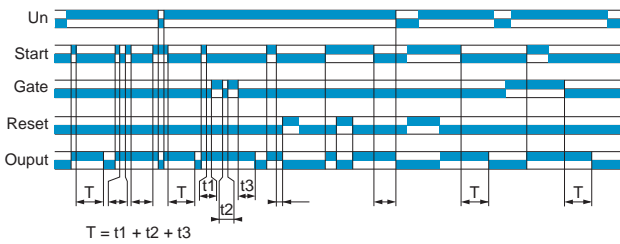
Function A: Power on-delay relay

Function B: Interval relay with control signal



Function C: Off-delay relay with control signal

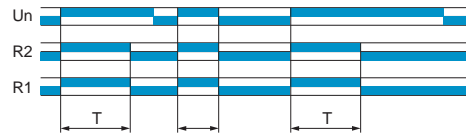
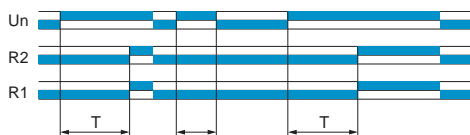
Function Di: Symmetrical flashing relay (starting pulse-on)



## 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.

## Zelio Time - Timing Relays

Modular relay with 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 terminals



RE17LAMW



RE17LLBM

### 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

### Modular relays with solid state output 0.7 A

#### Single function

Timing ranges	Functions	Voltages V	Reference	Weight kg/lb
7 selectable timing ranges 1 s, 10 s, 1 min, 10 min, 1 h, 10 h, 100 h	A	~ 242. 40	RE17LAMW	0.060/ 0.132
	H	~ 242. 40	RE17LHBM	0.060/ 0.132
	C	~ 242. 40	RE17LCBM	0.060/ 0.132

#### Dual function

7 selectable timing ranges 1 s, 10 s, 1 min, 10 min, 1 h, 10 h, 100 h	L, Li	~ 242. 40	RE17LLBM	0.060/ 0.132
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#### 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, D, Di, Ac, Bw	~ 242. 40	RE17LMBM	0.060/ 0.132
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### Modular relays with relay output, 1 CO contact

#### Single function

Timing ranges	Functions	Voltages V	Reference	Weight kg/lb
1 s, 10 s, 1 min, 10 min, 1 h, 10 h, 100 h	B	~ 24/~ 242. 40	RE17RBMU	0.070/ 0.154
	C	~ 24/~ 242. 40	RE17RCMU	0.070/ 0.154

#### Dual function

1 s, 10 s, 1 min, 10 min, 1 h, 10 h, 100 h	A, At	~ 24/~ 242. 40	RE17RAMU	0.070/ 0.154
	H, Ht	~ 24/~ 242. 40	RE17RHMU	0.070/ 0.154
	L, Li	~ 24/~ 242. 40	RE17RLMU	0.070/ 0.154
		~ 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/~ 242. 40	RE17RMMU	0.070/ 0.154
		~ 122. 40	RE17RMMW	0.070/ 0.154
			RE17RMMWS (1)	0.070/ 0.154
	Ad, Ah, N, O, P, Pt, Ti, Tt, W	~ 24/~ 242. 40	RE17RMXMU	0.070/ 0.154
1 s, 10 s, 1 min, 10 min, 1 h, 10 h	A, At, B, C, H, Ht, D, Di	~ 24/~ 242. 40	RE17RMEMU	0.070/ 0.154

(1) Connection by spring terminals.

# Zelio Time - Timing Relays

Modular single, dual, or multifunction relay 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



RE22R2QTMR



RE22R2KMR



RE22R2QEMR



RE22R2HMR



RE22R1MYMR

**References**

**Single function**

Timing ranges	Functions	No. of relay outputs	Voltages	Reference	Weight
			V		
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	~ 242.. 40	RE22R2ACMR	0.105/ 0.231
	Qg	2	~ 242.. 40	RE22R2QGMR	0.105/ 0.231
	Qt	2	~ 242.. 40	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	~ 242.. 40	RE22R1KMR (1) (2)	0.100/ 0.220
		2	~ 242.. 40	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/~ 242.. 40	RE22R1QCMU	0.080/ 0.176
	Single range selection 30 s	Qe	2	~ 242.. 40	RE22R2QEMR
		2	~ 3804.. 15	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	~ 242.. 40	RE22R1AMR	0.100/ 0.220
		2	~ 242.. 40	RE22R2AMR	0.105/ 0.231
	C, Ct	1	~ 242.. 40	RE22R1CMR	0.100/ 0.220
	C	2	~ 242.. 40	RE22R2CMR	0.105/ 0.231
	Ac, Act	1	~ 242.. 40	RE22R1ACMR	0.100/ 0.220
	Ak, Akt	1	~ 242.. 40	RE22R1AKMR	0.100/ 0.220
7 selectable timing ranges 0.5 s, 1 s, 3 s, 10 s, 30 s, 100 s, 300 s	D, Dw	1	~ 242.. 40	RE22R1DMR	0.100/ 0.220
		2	~ 242.. 40	RE22R2DMR	0.105/ 0.231
	H, Hw	1	~ 242.. 40	RE22R1HMR	0.100/ 0.220
		2	~ 242.. 40	RE22R2HMR	0.105/ 0.231
10 selectable timing ranges 1 s, 3 s, 10 s, 30 s, 100 s, 300 s, 30 min, 300 min, 30 h, 300 h	Wt, W	2	~ 242.. 40	RE22R2MWMR	0.105/ 0.231
	K, He	1	~ 242.. 40	RE22R1MKMR (1) (2)	0.100/ 0.220
	A, At, Aw	1	~ 242.. 40	RE22R1MAMR	0.100/ 0.220
	A, At, Aw, Ac, Act, C, Ct, D, Dt, Dw, Di, Dit, Diw, H, Ht, Hw, W, Wt,	1	~ 242.. 40	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	~ 242.. 40	RE22R2MYMR	0.105/ 0.231
	L, Li, Lt, Lit	1	~ 242.. 40	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

## Zelio Time - Timing Relays

Modular single, dual, or multifunction relay, 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 or spring terminals
- State indication by LED
- Option of supplying a load in parallel
- 3-wire sensor control option



RE22R1QMU



RE22R2AMU



RE22R2MXMU

### References

#### Multifunction

Timing ranges	Functions	No. of relay outputs	Voltages	Reference	Weight
			V		kg/lb
7 selectable timing ranges 1 s, 10 s, 1 min, 10 min, 1 h, 10 h, 100 h	Q	1	≡ 24/∼ 242.. 40	RE22R1QMU	0.090/ 0.198
			∼ 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/∼ 242.. 40	RE22R2AMU	0.090/ 0.198
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#### 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/∼ 242.. 40	RE22R2MMU (1)	0.090/ 0.198
			∼ 12	RE22R2MJU (1)	0.090/ 0.198
			∼ 122.. 40	RE22R2MMW (1)	0.090/ 0.198
	Ad, Ah, N, O, P, Pt, Tl, Tt, W	2	≡ 24/∼ 242.. 40	RE22R2MXMU (1)	0.090/ 0.198

(1) Connection by screw terminals.



**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



REXL2TM●●



REXL4TM●●



RXZE2M114

**References**

**Single function**

Timing ranges	Functions	No. of relay outputs	Voltages	Reference	Weight
			V		kg/lb
<b>7 switchable ranges</b> 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
			--- 12	REXL4TMJD	0.050/ 0.110
			--- 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●●	Sc ew b amp	RXZE2M114 (5)	0.048/ 0.106
	REXL2TM●●, REXL4TM●●	Connet or	RXZE2M114M (6)	0.056/ 0.123
Separate (4)	REXL2TM●●	Connet or	RXZE2S108M	0.070/ 0.154
	REXL4TM●●	Connet or	RXZE2S114M	0.058/ 0.128
	REXL2TM●●, REXL4TM●●	Spring b amp	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 I<sub>th</sub>: 10 A.

(6) Thermal current I<sub>th</sub>: 12 A.

## Zelio Time - Timing Relays

Analog, electronic relay,  
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



RE48ATM12MW



RE48AMH13MW



RUZC3M



RE48ASOC11AR



RE48ASOC8SOLD



RE48ASOC11SOLD



RE48ASETCOV



RE48AIPCOV

### References

#### 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	1	~ 242.. 40	RE48ATM12MW	0.140/ 0.309
	A1, A2, H1, H2	2 of which 1 instantaneous	~ 242.. 40	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	~ 242.. 40	RE48ACV12MW	0.140/ 0.309
	A, B, C, Di	2	~ 242.. 40	RE48AML12MW	0.140/ 0.309

#### Sockets

Description	Number of pins	For use with relays	Sold in lots of	Unit reference	Weight
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	8	RE48ATM12MW, RE48AMH13MW	1	RE48ASOC8SOLD	—
	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	21	REXL4TMB7	24
RE17LCBM	21	REXL4TMBD	24
RE17LHBM	21	REXL4TMF7	24
RE17LLBM	21	REXL4TMJD	24
RE17LMBM	21	REXL4TMP7	24
RE17RAMU	21	RUZC2M	25
RE17RBMU	21	RUZC3M	25
RE17RCMU	21	RXE2M114	24
RE17RHMU	21	RXE2M114M	24
RE17RLJU	21	RXE2S108M	24
RE17RLMU	21	RXE2S114M	24
RE17RMEMU	21	RXE2S114S	24
RE17RMJU	21		
RE17RMMU	21		
RE17RMMW	21		
RE17RMMWS	21		
RE17RMXMU	21		
RE22R1ACMR	22		
RE22R1AKMR	22		
RE22R1AMR	22		
RE22R1CMR	22		
RE22R1DMR	22		
RE22R1HMR	22		
RE22R1KMR	22		
RE22R1MAMR	22		
RE22R1MKMR	22		
RE22R1MLMR	22		
RE22R1MYMR	22		
RE22R1QCMU	22		
RE22R1QMQ	23		
RE22R1QMU	23		
RE22R2ACMR	22		
RE22R2AMR	22		
RE22R2AMU	23		
RE22R2CMR	22		
RE22R2DMR	22		
RE22R2HMR	22		
RE22R2KMR	22		
RE22R2MJU	23		
RE22R2MMU	23		
RE22R2MMW	23		
RE22R2MWMR	22		
RE22R2MXMU	23		
RE22R2MYMR	22		
RE22R2QEMR	22		
RE22R2QEMT	22		
RE22R2QGMR	22		
RE22R2QTMR	22		
RE48ACV12MW	25		
RE48AIPCOV	25		
RE48AMH13MW	25		
RE48AML12MW	25		
RE48ASETCOV	25		
RE48ASOC8SOLD	25		
RE48ASOC11AR	25		
RE48ASOC11SOLD	25		
RE48ATM12MW	25		
REXL2TMB7	24		
REXL2TMBD	24		
REXL2TMF7	24		
REXL2TMJD	24		
REXL2TMP7	24		

Relays



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